

SOCIAL INTERACTION OF CHINESE VISA STUDENTS:
REFERENCE GROUPS AND
MORPHOLOGICAL AGE ASSESSMENTS

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ABSTRACT

This study examines friendship patterns and morphological age assessments of Chinese visa students (CVS), Euro-Canadian Students (ECS), and Chinese-Canadian students (CCS). It focuses on two questions:

- 1) Are Chinese students perceived as physically younger than Euro-Canadian students?
- 2) How does morphological age assessment affect ethnic group interaction and friendship group composition?


Four hypotheses are formulated to address these questions. They are as follows:

- 1) There is no significant difference among CVS, CCS, and ECS with respect to the ethnic composition of their friendship groups.
- 2) There is no significant difference among CVS, CCS, and ECS with respect to their morphological age assessments of Chinese and Euro-Canadian students.
- 3) There is no significant difference among CVS, CCS, and ECS with respect to morphological age assessments of their friends.
- 4) There is no significant difference among friends who are CVS, CCS, and ECS with respect to the morphological age assessment of those friends.


The findings of this study indicate that CVS and ECS

strongly identify with their own groups through friendship associations due to factors which include ethnicity, language, and demography. CCS, on the other hand, strongly identify with ECS through friendship associations due to factors which include Canadian identity, assimilation, and demography. Both CVS and CCS share a similar perception of Chinese students as morphologically younger than Euro-Canadian students. This shared perception appears to involve factors of shared cultural background and shared generalized morphology. Differences between CVS and ECS, in morphological age assessments are related to the ethnicity of the subject making the assessment and are not related to the ethnicity of the friend being assessed. Although perception of morphological age difference is not a factor in friendship group composition, this typification scheme does play a role in ethnic group interaction, specifically influencing the social adjustment of CVS.

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CONTENTS

ABSTRACT.....	ii
CONTENTS.....	iv
LIST OF TABLES.....	v
ACKNOWLEDGEMENTS.....	vii
DEDICATION.....	viii
I. INTRODUCTION.....	1-37
Historical Background.....	3-12
Literature Review	12-16
Reference Groups.....	16-17
Ethnic Groups.....	17-21
Friendship Groups.....	21-25
Morphological Age Assessment.....	25-26
Events of Biological Maturation.....	27-31
Physical and Perceptual Measures of Maturity.....	31-32
Social Implications.....	32-35
Summary.....	35-37
II. METHODS AND MATERIALS.....	38-64
Sorting Procedure.....	39-52
Hypothesis Testing.....	53-64
A) Hypothesis 1.....	55
B) Hypothesis 2.....	56-62
i) Condition 1.....	56
ii) Condition 2.....	56-62
C) Hypothesis 3.....	63
D) Hypothesis 4.....	63-64
III. RESULTS.....	65-85
A) Hypothesis 1.....	65-68
B) Hypothesis 2.....	69-77
i) Condition 1.....	69-71
ii) Condition 2.....	72-77
C) Hypothesis 3.....	78-81
D) Hypothesis 4.....	82-85
IV. SUMMARY AND DISCUSSION.....	86-104
V. CONCLUSION.....	105-108
VI. REFERENCES.....	109-117
VII. APPENDIX.....	118-121

LIST OF TABLES

TABLE 1	
CVS BY AGE, SCHOOL LEVEL, SEX, NATIONALITY, BIRTHPLACE, MOTHER TONGUE, AND ETHNIC IDENTITY.....	41-42
TABLE 2	
ECS BY AGE, SCHOOL LEVEL, SEX, NATIONALITY, BIRTHPLACE, MOTHER TONGUE, AND ETHNIC IDENTITY.....	43-44
TABLE 3	
CCS BY AGE, SCHOOL LEVEL, SEX, NATIONALITY, BIRTHPLACE, MOTHER TONGUE, AND ETHNIC IDENTITY.....	45-46
TABLE 4	
FRIENDS OF CVS BY AGE, SCHOOL LEVEL, SEX, NATIONALITY, BIRTHPLACE, MOTHER TONGUE, AND ETHNIC IDENTITY.....	47-48
TABLE 5	
FRIENDS OF ECS BY AGE, SCHOOL LEVEL, SEX, NATIONALITY, BIRTHPLACE, MOTHER TONGUE, AND ETHNIC IDENTITY.....	49-50
TABLE 6	
FRIENDS OF CCS BY AGE, SCHOOL LEVEL, SEX, NATIONALITY, BIRTHPLACE, MOTHER TONGUE, AND ETHNIC IDENTITY.....	51-52
TABLE 7	
THE PHOTOGRAPHS OF EURO-CANADIAN STUDENTS AND CHINESE STUDENTS BY AGE, SCHOOL LEVEL, SEX, HEIGHT, WEIGHT, NATIONALITY, MOTHER TONGUE, AND ETHNIC IDENTITY.....	60-62
TABLE 8	
OBSERVED FREQUENCIES AND CHI-SQUARE STATISTICS FOR HYPOTHESIS 1: ETHNIC GROUP OF SUBJECTS AND ETHNIC GROUP OF THEIR THREE CLOSEST FRIENDS.....	67
TABLE 9	
PERCENTAGES FOR HYPOTHESIS 1: ETHNIC COMPOSITION OF FRIENDSHIP GROUPS FOR CVS, ECS, CCS.....	68
TABLE 10	
OBSERVED FREQUENCIES AND CHI-SQUARE STATISTICS FOR HYPOTHESIS 2, CONDITION 1: ETHNIC GROUP OF SUBJECTS AND THEIR MORPHOLOGICAL AGE ASSESSMENTS OF CHINESE STUDENTS COMPARED TO EURO-CANADIAN STUDENTS.....	70

TABLE 11	
PERCENTAGES FOR HYPOTHESIS 2, CONDITION 1: MORPHOLOGICAL AGE ASSESSMENTS OF CHINESE STUDENTS COMPARED TO EURO-CANADIAN STUDENTS FOR CVS, ECS, CCS.....	71
TABLE 12	
OBSERVED RANKED ORDERS, KENDALL'S CONCORDANCE AND CHI-SQUARE STATISTICS FOR HYPOTHESIS 2, CONDITION 2: MORPHOLOGICAL AGE ASSESSMENTS OF PHOTOGRAPHS BY CVS	73
TABLE 13	
OBSERVED RANKED ORDERS, KENDALL'S CONCORDANCE AND CHI-SQUARE STATISTICS FOR HYPOTHESIS 2, CONDITION 2: MORPHOLOGICAL AGE ASSESSMENTS OF PHOTOGRAPHS BY ECS	74
TABLE 14	
OBSERVED RANKED ORDERS, KENDALL'S CONCORDANCE AND CHI-SQUARE STATISTICS FOR HYPOTHESIS 2, CONDITION 2 MORPHOLOGICAL AGE ASSESSMENTS OF PHOTOGRAPHS BY CCS	75
TABLE 15	
OBSERVED TOTALS, KENDALL'S CONCORDANCE, AND CHI SQUARE STATISTICS FOR HYPOTHESIS 2, CONDITION 2: MORPHOLOGICAL AGE ASSESSMENTS OF THE PHOTOGRAPHS BY CVS, ECS, AND CCS	76
TABLE 16	
PERCENTAGE TOTALS FOR HYPOTHESIS 2, CONDITION 2: MORPHOLOGICAL AGE ASSESSMENTS OF THE PHOTOGRAPHS BY CVS, ECS, AND CCS.....	77
TABLE 17	
OBSERVED FREQUENCIES AND CHI-SQUARE STATISTICS FOR HYPOTHESIS 3: ETHNIC GROUP OF SUBJECTS AND THE MORPHOLOGICAL AGE ASSESSMENTS OF THEIR FRIENDS.....	80
TABLE 18	
PERCENTAGES FOR HYPOTHESIS 3: MORPHOLOGICAL AGE ASSESSMENTS OF FRIENDS BY CVS, ECS, AND CCS.....	81
TABLE 19	
OBSERVED FREQUENCIES AND CHI-SQUARED STATISTICS FOR HYPOTHESIS 4: ETHNIC GROUPS OF FRIENDS AND MORPHOLOGICAL AGE ASSESSMENTS OF THOSE FRIENDS.....	84
TABLE 20	
PERCENTAGES FOR HYPOTHESIS 4: MORPHOLOGICAL AGE ASSESSMENTS OF FRIENDS BY ETHNIC GROUP OF FRIENDS.....	85

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viii

DEDICATION

TO MY PARENTS

INTRODUCTION

I saw two Chinese girls conversing,
Their smiles reverberating
Through the white masses in the school library.
(Sally Ito 1984:14)

Canadian universities provide an excellent forum for observation of ethnic group interaction. Both foreign and domestic students are confronted with new and varied social environments, and the manner in which each interacts socially with the other is a product of culture, biology and chance.

Friendships form a large part of a student's social sphere of interaction. The student's self-identity is formulated, to a great extent, through friendships in which the individual identifies with others and others identify with the individual. Friendship groups are formed consciously and unconsciously, based on various criteria: common ethnic identity and age, for example.

In this study I examine friendship groups and compare morphological age assessment among Chinese visa students

(CVS), Chinese-Canadian students (CCS), and Euro-Canadian students (ECS) at the University of Victoria. This is a unique comparison in that it addresses both cultural and biological factors entering into group composition.

In order to consider these factors two general questions are formulated:

- 1) Are Chinese students perceived as physically less mature than non-Chinese students?
- 2) What are the effects of this perception on the social interaction of Chinese students with non-Chinese students?

I will attempt to answer these questions by:

- a) examining the effects of ethnic identity on friendship group composition,
- b) examining the effect of ethnic identity on morphological age assessment, and
- c) examining the effect of morphological age assessment on friendship group composition.

It should come as no surprise that ethnic identity, including: common language, experience, background and understanding, is important in determining friendship group composition (Klineberg 1980, Kuo and Lin 1977, Fong 1973, Selltiz et. al 1963, Bagu 1962). We cannot assume, however, that ethnic identity is the sole factor.

This study examines how morphological age assessment affects friendship group composition. As I will explain,

morphological age assessment, which refers to how old a person appears, involves more than an assessment of age based on the biological rate of maturation. It implies a shared group perception of characteristics upon which these assessments are based. Thus, the ethnic dimension to this perception is especially interesting when one conducts a cross-cultural comparison of friendship group composition.

In developing these ideas four hypotheses are formed. The first hypothesis compares the ethnic composition of the friendship groups. The second and third hypotheses look at perception of morphological age among ethnic groups and within friendship groups, respectively. The fourth and final hypothesis investigates whether or not there is any relationship between the ethnic identity of the friends and how they are assessed by the subjects. In examining these hypotheses, I will untangle some of the cultural and biological factors affecting group composition in a Canadian university setting. These four hypotheses are discussed in detail following the sections on Historical Background, Reference Groups, and Ethnic groups.

Historical Background

The following is a brief historical account of Chinese migration to Canada. In considering the CVS as a part of

the Chinese sojourning tradition, I place the CVS in an historical context which shows a consistency in strategies for Chinese migrants to Canada. Although their role is sometimes minimized, Chinese people have in fact actively participated in the growth and settlement of Canada. The Chinese were coolie laborers, traders, entrepreneurs, and settlers. Their presence was initially felt in the west; by the beginning of this century they had migrated eastward to settle throughout Canada.

In early Canadian history, however, the Chinese are often characterized as sojourners. Sui (1952) describes the Chinese sojourner as a migrant who spends a portion of his lifetime working in a host society in order to obtain socio-economic status upon his return home and so is mentally oriented towards China. The sojourner strategy is described by Woon (1983:688):

While sojourning overseas was a strategy actively pursued by the mercantile class in coastal southeastern China, the sojourner mentally also characterized the peasants from the same area who later went abroad to work at menial jobs, whether as free agents or as indentured laborers.

Woon further includes scholars within this tradition. This is important since our discussion, likewise, includes CVS within the sojourning tradition.

Woon's paper specifically focuses on the debate surrounding the voluntary sojourner and his desire to return home. She is critical of approaches which narrowly

concentrate on immigration policies to explain Chinese sojourning strategies (Li 1980, Chan 1983). Examination of this question should follow a more conventional mode of viewing ethnic behaviour as a dynamic process involving the reaction of the individual to his reference group both at home and overseas (Woon 1983:678). Reference group affiliations account for several interacting factors of sojourning behaviour. Factors involved in returning home include: paternal kin group association, home group association, internal and external group pressure, and desire for increased socio-economic status.

It is reasonable to consider the CVS as a contemporary example of the sojourner tradition. [Consistent with the definition of the Chinese sojourner (Siu 1952), the CVS spends a portion of his/her lifetime studying in a host society in order to obtain socio-economic status upon returning home. Wong (1979:67) characterizes the majority of the students who belong to this pattern as arriving in Canada on a student visa from Hong Kong not more than five years ago. They come to Canada with the intention of obtaining a university education, speak Chinese (Cantonese) and often are not fluent in English. Their families range from prosperous merchants to average wage earners. As such, CVS as characterized by Wong (1979:68) are oriented towards home.

To a large extent pattern D students [author's note: CVS] have contributed to the stereotype

of the hard-working bookworm who is brilliant in mathematics and the sciences but poor in verbal and social skills. . . . The majority, however, appear to be chiefly concerned with their academic performance and being able to go home with honours.

According to the Association of Universities and Colleges in 1983 there were 8,376 students from Hong Kong, 4,960 students from Malaysia, 1,228 students from Singapore, and 501 students from China enrolled in Canadian universities (research and Analysis Division 1985:14). It should be noted that these populations are by country of origin and do not necessarily represent Chinese identity. Almost every Canadian university has at least one Chinese student association. Wong (1979:68) notes that these associations are comparable to the mutual-aid societies or "tongs" organized by Chinese laborers.

These associations provide companionship, housing referrals, pot-luck suppers and study-aid for a group of young sojourners who would otherwise feel very much alone in an alien culture.

According to the Department of Institutional Analysis at the University of Victoria, in 1985-86 there were 51 visa students from Hong Kong, 28 from China, 17 from Singapore, 23 from Malaysia, 4 from Indonesia, and 1 from Thailand (not all of these visa students are CVS). There was a total of 288 visa students, compared with 9,826 Canadian students at the university. It is very difficult to present any population numbers for CVS, CCS or ECS since data pertaining to Chinese or non-Chinese ethnic identity are not available.

According to Alma Mater Society in 1986 (previous years were not recorded) the Chinese Student Association has a membership of 73 students, and the Chinese Christian Fellowship has a membership of 38 students. Other clubs oriented towards CVS membership included the Mah Jong Club and the Canada-China Friendship Club (both clubs were pre-1979).

In historical context the strategies of CCS differ, somewhat, from CVS. The focus of my investigation changes from examining the sojourning Chinese to examining the formation of the Chinese ethnic community. Chinese migration to Canada is an outgrowth of the sojourning tradition; however, this tradition does not account for the ethnic behaviour of either Chinese immigrants or CCS. Chinese immigrant strategies differ in direction of reference. By virtue of Canadian citizenship the individual is not oriented to return home. Although various kinship, political and economic ties may be maintained with China (Lai 1982), historically the Chinese immigrant turns his/her reference inward to the ethnic Chinese community. Wickberg (1982:247) reports that by the mid-1960's the sojourner Chinese was becoming a social type of the past.

Li (1980) maintains that Chinese sojourning behaviour was not a reflection of cultural preference but was imposed through immigration policies. These policies included the Chinese Immigration Act of 1923 to 1947, provincial and

federal head tax of 1885 and 1902, and Chinese disenfranchisement of 1885. Social intolerance marks further episodes which dissuaded Chinese immigration. The Vancouver race riots of 1907 attest to anti-Chinese sentiments in British Columbia (McEvoy 1982). As Paupst (1977) points out, these anti-Chinese sentiments were neither the preserve of British Columbia, nor did they require the presence of a sizable Chinese community. At the beginning of this century when scarcely 150 Chinese lived in Toronto, manifestations of hostilities were articulated in the local press. These sentiments were kindled on by social and economic fears of the "Oriental menace" (Roy 1976:244).

The Chinese response (Baureiss 1985) to this discrimination, combined with a strong adherence to traditional cultural values, contributed to the formation of Chinese communities. They transferred loyalties and institutions of their native villages to the overseas communities. They transformed indigenous customs and traditions to meet the special conditions under which they had to live.

Based on their common ethnic background and being denied full participation in the host society, close social bonds developed between them. (Baureiss 1985:253)

The self-contained, segregated, close-knit Chinese community, which resisted assimilation, continued until the second half of this century. Baureiss (1985:258) reports that changes towards the Chinese -- a decrease in

ethnocentrism and access to more equal power base -- have produced a more open system within Chinese communities.

The CCS belongs to an historical tradition involving the formation and development of the Chinese community. The background of each individual, however, may range from multiple generations of Canadian heritage to recent immigration. The CCS, in contrast to CVS, segregate into different friendship groups in which conversation is conducted in English in the CCS group and in Chinese in the CVS group. Fong (1965 and 1967) takes a psychological approach to examining the subgroups of CCS. The CCS can be further conceived as divided into three subgroups according to their assimilation orientation towards non-Chinese society and internalization of non-Chinese perception: 1) those who are assimilation oriented, 2) those who are not assimilation oriented, and 3) those who are assimilation oriented but are not directed towards internalization of non-Chinese cultural values and norms (Fong 1965:272).

From the point of view of an ethnographic study, Wong (1979) takes a more practical approach and characterizes three subgroups of CCS based on length of residency in Canada and ethnic identity. The first group consists of students born in Canada, in China or in Hong Kong. All have lived in Canada since early childhood. They are fluent in English but not in Chinese. Their families have raised their status and often moved to middle-class suburbs. The

grandparents, parents and students all can recall incidents of discrimination. These students, however, tend to belong to an ethnically heterogeneous friendship group. Many of these students wish to be identified as members of the majority group. They identify themselves as Canadian only, not Chinese-Canadian.

The second group has a long residency in Canada. Their parents arrived after 1947 as sponsored immigrants. In most cases, their parents have not become affluent and they live in or near Chinatown. These students speak English to others but speak a mixture of Chinese and English to their parents. They tend to have only other Chinese as friends, but because of their lack of proficiency in Cantonese they tend not to have CVS friends. They are intensely proud of their heritage and identify themselves as Chinese.

The third group has lived in Canada for five years or less. Their parents are professionals or business executives. Many of these students attended Anglo-Chinese schools in Hong Kong and consequently have a good command of English. Although their friendship group may be ethnically heterogeneous they tend to drift towards friendship groups containing CVS. They identify themselves as Chinese-Canadian.

As the CCS become progressively removed from the Chinese community and come into greater contact with the

host culture, they exhibit a concurrent increase in their assimilation orientation and their internalization of new perceptual norms (Fong 1965:265). Young (1972) recognizes this assimilation process but contends that there is a persistence in values and strategies that are traditionally Chinese. There is an emphasis on family and material well-being and little emphasis on gaining recognition, contributing to society, or having many friends. Even as residency patterns change, a strong ethnic identity and preference for Chinese friends is maintained (Young 1972, Kinloch and Borders 1972). The CCS have a broad range of behavioral strategies. The first group characterized by Wong (1979) is oriented towards assimilation with the non-Chinese community, the second is not.

The relationship of the CCS with the CVS further indicates ambiguity between a Chinese and non-Chinese orientation. Fong (1965:272) describes the nature of interaction between these groups by stating that:

It is not surprising, then, that the American-born Chinese are often regarded with mixed feelings by the overseas Chinese because the former have similar physical characteristics and yet are different. On the other hand American-born have sometimes regarded the China-born as being too 'Chinified'.

CVS and CCS are segregated into various groups and subgroups largely dependent upon their frame of reference and ethnic identity. Historically, the sojourning tradition explains the behavioral strategies of Chinese migrants in

Canada. The sojourner strategy, likewise, characterizes the strategies of the CVS and their orientation towards home. With the Chinese immigrant, however, there was a change in orientation from an identification with China to an identification with the ethnic Chinese community. Furthermore, their ambiguous ethnic identification and their ethnically heterogeneous friendship networks make evident a change in CCS strategies.

Literature Review

A general review of the literature on topics related to body perception and social interaction can be largely categorized under cross-cultural psychology and sociology. Research such as this usually falls within the discipline of social psychology and is notably sparse in the anthropological literature. Pang et al. (1985:104) indicate that extant cross-cultural studies on the process of development of physical self-concepts of Asians are scarce and that social and historical concomitants can be drawn only tenuously at best.

The concept of visible minorities and morphological differences affecting interaction between ethnic groups is not novel (for example, see Ujimoto and Hirabayashi 1980). Pang et al. (1985:105), however, indicate an important need

for further research focusing on the specific subcomponents of body image. Their research on the self-concept reveals that short stature and flat noses are two items often seen as negative attributes by Japanese-Americans. Marsell et al. (1981) examines the correlation between body image and depression for Chinese-Americans, Japanese-Americans, and Caucasian-Americans. Their findings indicate a positive correlation between body image dissatisfaction and depression. When depressed, both Chinese-American males and Japanese-American males show increased dissatisfaction with dimensions of their physique, Chinese-American females show increased dissatisfaction with their general facial and physical dimensions, while Caucasian-American males and females concentrate on facial dissatisfaction when depressed. Other cross-cultural studies on self-concept include more general focuses which do not emphasise physical aspects. Bond and Cheung (1983) examine the self-concept of Chinese, Japanese, and American college students using an open-ended inventory "who am I" and no a priori assumptions for category analysis. They attempt to avoid imposing culturally biased concepts on students self-image projections. In their conclusions they indicate Chinese and Americans mention family more frequently than Japanese, whereas Japanese refer more frequently to age and sex roles. Chinese self-esteem falls between American high and the Japanese low self-esteem. In a comparison of perceptions of

control, Lao, Chung, and Yang (1977) find that Chinese college males feel they have more control over their lives than Chinese College females. This pattern is similar for American college males and females. Further, Lao (1978) finds a positive correlation between the perception of self-control and socio-economic group for both Chinese and Americans. Apart from the various physical and psychological differences and similarities, social interaction is an important consideration in the development of self-concepts.

Studies which are more sociological in nature examine ethnic interaction, identity, and assimilation. In pluralistic societies ethnic identification may hinder ethnic mixing and increase social distancing between groups (Ogunlade 1972:201). Morland and Hwang (1981:424) propose that in Taiwan, Hong Kong, and America, social stratification is a crucial factor in the development of racial/ethnic identities. With regards to ethnic affirmation of Chinese students, Yang and Bond (1980:423) report that responses are dependant on the individuals' levels of identification with Chinese culture and the availability of cross-cultural interaction to deny or affirm their identity. Taguchi (n/d) observes a difference between the public and private play of Nursery School children in Canada. In private choice situations Oriental children choose their own group members as playmates and friends. Among Japanese Elementary school children in Hawaii, Kinloch

and Borders (1972:337) observe that racial attitudes, stereotyping, and social distancing are formed at a relatively early age and are socially and situationally defined. A general pattern among foreign students is to surround themselves with compatriots or fellow nationals (Becker 1971:473). This is common for CVS, as well, although subgroups based on parental background, mother tongue, and participation with and perception of Chinese and Canadian culture are recognizable (Wong 1979:63). The adaptive experience of the CVS is related to his/her individual background, goals, and physical and psychological health prior to and during the sojourn (Klein, Miller, and Alexander 1980:330). As well, the host community's perception of foreign students as "givers" or "takers" greatly affects how the students are received and how they respond (Groberman 1980:160). In situations of cross-cultural interaction ethnic groups continue to identify with their ethnic community even after they have dropped many other aspects of their social cultural life-style (Sengstock 1969:30). Chinese values and strategies persist apart from changes in residency patterns, changes in economic practices, and increases in intergroup marriages (Young 1972:232). There is, however, an internalization and orientation towards the dominate American perceptual norms as Chinese become progressively removed from their general culture (Fong 1966:265 and 1965:271). Apart from select

psychological or social tendencies the general trend is for latter generations of North American Chinese to become more similar to the Anglo majority (Lee and Trimble 1982:54).

Articles and research on ethnic relations, interaction, and stereotyping are commonplace in the literature, for the past few decades. More recently, an interest in cross-cultural psychology, perception and self-concept is evidenced. The preceding studies demonstrate a growing concern for examining the subcomponents of self-concept and social interaction involved in inter-group relations. Cross-cultural studies specifically dealing with morphological age assessment and friendship group, however, are not yet available.

Reference Groups

The theoretical approach to this study is based on Shibutani's (1963:101) model of reference group analysis. He defines a reference group in the following manner:

A reference group, then is that group whose outlook is used by the actor, as the frame of reference in the organization of his perceptual field. All kinds of groupings, with great

variation in size, composition, and structure, may become reference groups. Of greatest importance for most people are those groups in which they participate directly--what have been called membership groups--especially those containing a number of persons with whom one stands in a primary relationship. But in some transactions one may assume the perspective attributed to some social category--a social class, an ethnic group, those in a given community, or those concerned with some special interest.

To simplify Shibutani's definition, reference groups are groups which serve as a frame of reference for the individual. Identification with these groups orders the individual's perceptions of reality and his/her perspectives in the social world. Reference groups include groups of direct interaction, such as friendship and kinship groups, and groups of indirect association, such as class and ethnic groups. I will employ this all-encompassing model and examine ethnic and friendship groups with regards to the nature of inter-group interaction and perception.

Ethnic Groups

Barth (1969:117) explains that identification of another person as a fellow member of an ethnic group implies recognition of shared criteria for evaluation and judgement upon which a potential is established for diversification

and expansion of their social relationship to cover a wide variety of different sectors and domains of activity. On the other hand, identification of others as non-members implies a recognition of the limitations for shared understanding, differences in criteria for judgement of values and performance, and a restriction of interaction to sectors of assumed common understanding and mutual interest. To state this more succinctly, members of an ethnic group share perceptions which create the potential for a great variety of social interactions, whereas non-members are limited in their shared perceptions and are likewise restricted in their potential for a variety of interactions. Historically, for example, the Chinese sojourner assumes the perspective of an overseas Chinese and perceives his visit to Canada as a finite experience culminating in a reunification with his own community in China. The Chinese immigrant, on the other hand, assumes the perspective of a local Chinese and perceives his/her experience in Canada as an ongoing association with the local Chinese community. For both there are political and social limitations on interaction with the majority non-Chinese population.

Ethnic identity is a process of reference group association. Through social interaction the individual identifies and participates with others who share common linguistical, cultural and biological features. The group serves as a frame of reference for the individual in the

formation and organization of his/her perceptions and perspectives.

Ethnic identity is defined as an individual's implicit or explicit identification with an ethnic group. Barth (1969:10-11) describes an ethnic group as a population which is largely biologically self-perpetuating, shares fundamental cultural values which are realized in an overt unity in cultural forms, makes up a field of communication and interaction, has a membership which identifies itself, and is identified by others as constituting a category distinguishable from other categories of the same order.

Barth (1964) is noted for his investigation of ethnic categories of ascription which are categories with which actors identify themselves. He also examines ethnic boundaries which are maintained through a social process of inclusion and exclusion. Ethnic categories and group boundaries constitute a dynamic process of self-identification and group composition, and thus, should not be regarded as discrete, static units of classification. The process of self-identification and group composition involves the recognition of differences and similarities in others (Yinger 1981). CVS and CCS, for example, have similar physical characteristics and yet are different, while ECS are different in many respects (Fong 1965:272). Lee & Trimble (1982), Wong (1979), and Fong (1965) recognize CVS, CCS, and ECS as distinct ethnic categories. They

further segregate these groups into less conspicuous subgroups, depending on geographic origin, dialect group, length of Canadian residency and many other criteria.

Similarly, I segregate the subjects of this study into groups using ethnic identity and foreign/domestic status as diagnostic criteria. CVS refers to students of Asian nationality, foreign student status and Chinese ancestry. This includes Chinese students from Hong Kong, Malaysia, Singapore, Sarawak, Borneo, Taiwan, Indonesia, China, and other parts of Asia. Although this category ignores a considerable degree of variability with respect to ethno-linguistic grouping (Fong 1965-66:272), CVS are an identifiable group at the University of Victoria and other Canadian universities. Furthermore, the University of Victoria Student Union officially recognizes the Chinese Student Association as a distinct group within the university.

ECS includes Canadian students of British, French, Mediterranean, Germanic, and Slavic ancestry. A third category, CCS, includes students of Chinese ancestry born in Canada and students with Canadian status. CCS are distinguished from ECS by nature of their ancestry, and are distinguished from CVS by nature of their Canadian status.

Reference groups are not restricted to ethnic groups. They include class groups, special interest groups, friendship groups, and age groups. These groups do not

constitute mutually exclusive categories; there is a considerable degree of overlap between an individual's various groups of association. For instance, an individual may have membership in ethnic groups, friendship groups and age groups, although the criteria for membership in each of these groups may differ. It is in this area of overlap that we may discover relationships between the various criteria for reference group associations.

Friendship Groups

Friendship refers to an established and recognized close interpersonal relationship and interaction between individuals, apart from family relationships.

Feld and Radin (1982:28) explain:

The important thing is that individuals realize they share this identity, and thus have a bond between them even if they are not members of the same racial or ethnic group.

In measuring the dimensions of interpersonal relations the individual him/herself provides the scale for assessment (Feld and Radin 1982:21). Bogardus (1925), however, establishes a relative scale for social distance which ranks friendship as second in importance to "close kinship by marriage." Although friendship is difficult to quantify, the importance of friendships as a frame of reference cannot be underestimated.

In a cross-cultural situation the definition of friendship is consistent. In his analysis of social interaction in Mazu, Taiwan, Jacobs (1982:222) defines Chinese friendship:

. . . friendship occurs as a result of fairly sustained social interaction. This interaction is of a particular kind, however, because (1) the term friend cannot be applied to agnates or affines, (2) friends almost invariably are of similar social status, (3) friends are usually of the same age and sex, and (4) friends tend to have similar inclinations and values.

The implications, ramifications, and obligations manifest in friendship relations vary according to differences in the social structure. Friendship in Chinese society involves a formalized system of obligations and alliances. Freeman (1970:88) suggests that friendship in Chinese society in Singapore implies a nepotic structure of obligations. Wilson and Pusey (1982:195) note this nepotic structure in Chinese restaurants in the U.S. but they state that the primary structure of obligation is towards kinship members. Jacobs (1982:222) describes a semi-formalized social, political and economic alliance called "guanxi". A "guanxi" base such as classmate, co-worker or fellow-villager seems prerequisite to the establishment of friendships in Mazu.

The western concept of friendship differs somewhat in this respect. Although western friendships entail a structure of obligation, these obligations are often not formalized in the same fashion.

They [Chinese] behave towards other persons in an economic context without the show of impersonality which the West sets up as the ideal both in its bureaucracy and its business. (Freeman 1970:87)

The ramifications of friendship groups are found throughout the social, political and economic structures of society. These ramifications vary in nature and degree for different societies. The full scope of friendship relations goes beyond the parameters of this study.

In the first hypothesis, I examine the ethnic composition of friendship groups. Friendship patterns from within the ethnic group indicate a degree of homogeneity while patterns from outside the ethnic group indicate a degree of heterogeneity in associations and loyalties. These are important considerations when investigating the manner in which ethnic groups interact.

Following Barth's (1964) discussion of ethnic group boundaries Yinger (1981) discusses the processes of ethnic group interaction which he refers to as assimilation:

Assimilation is a process of boundary reduction that can occur when members of two or more societies or of smaller groups meet. Seen as a complete process, it is the blending into one of formerly distinguishable socio-cultural groups. Treating it as a variable, however, which I think strengthens our understanding, we note that assimilation can range from the smallest beginnings of interaction and cultural exchange to the thorough fusion of the groups (p.249).

He divides the assimilation process into four sub-processes: amalgamation, identification, acculturation, and

integration. Amalgamation or biological assimilation refers to the mixing of gene pools through interbreeding and intermarriage. Identification or psychological assimilation refers to a shift from a separate identification of individuals to a common identification. Acculturation or cultural assimilation refers to an exchange and encapsulation of material culture, values, beliefs, and behaviors. Integration or structural assimilation refers to the dispersion of members of a group throughout the group structures of society. Examination of the ethnic composition of friendship groups lies within the sub-process of structural assimilation, specifically this study is concerned with the dispersion of ethnic groups of students throughout the friendship group structures of university society. This dispersion, however, clearly has implications for all sub-processes of assimilation.

According to Yinger (1981:257) the degree and type of culture contact, acculturation and assimilation are affected by various interdependent factors: historical, cultural, demographic, institutional and attitudinal. With respect to assimilation orientation Mercer (1979) specifically considers the Chinese adolescent in a Western setting:

Chinese adolescents who immigrate to the United States during their teens or who live among or near Chinese people tend to retain or be more influenced by traditional Chinese attitudes or norms. They may stay together in social or school groups for emotional and social life (p.65).

Mercer refers to Chinese who stay together in social and school groups and who do not disperse beyond the social structure of the Chinese community. These ethnically homogeneous reference groups form and maintain group boundaries which are inclusive and exclusive, and emphasize the differences and separations between groups.

Young (1972) notes a homogeneous pattern of ethnic and friendship group association for Chinese in Hawaii. She concludes that cultural changes are occurring but there is a persistence of values and strategies that are traditionally Chinese. Lee and Trimble (1982) and Fong (1965) indicate that psychological changes in assimilation orientation and social perception are occurring among CCS. The question Young (1972) poses is not whether Chinese-Americans are assimilating, but in what direction they are assimilating. Among CCS, the implications for friendship group composition affecting the assimilation process are profound. Young's question can be addressed by investigating the differences between CCS ethnic and friendship group associations.

Morphological Age Assessment

My reason for selecting this topic stems from a conversation with a friend at the University of Toronto. This friend, a CVS, confessed that I was the first ECS he

could call a friend in his three years of residency in Canada. One reason he gave, apart from his lack of proficiency in English, was that he felt he was physically less mature than his ECS contemporaries. Many informal discussions with other CVS friends indicated they shared a similar perception.

Lee and Trimble (12982:54) suggest that:

there is a subtle implication that Chinese Canadians are in some way not as "mature" as non-Chinese. . . . it is also revealing to note that descriptions of the diversity and change amongst Chinese is always in terms of how some Chinese (later North American generations, for example) are becoming more "mature" or like the Anglo majority.

It is apparent that Lee and Trimble are suggesting Chinese maturation as a basis for the formation of a stereotype. Pang et al. (1985:100) state that the minority child's self-concept of his/her physical attributes may incorporate this information, even though these societal perceptions may not reflect objective reality.

In examining Chinese and non-Chinese maturity, I focus on the physical domain of maturity or morphological age. The first step is to review the literature to determine biological differences in the maturation rates between Chinese and non-Chinese. Differences in maturation rates would support the suggestion that Chinese youth are less mature.

Events of Biological Maturation

This section is a review of the biological characteristics of maturation which are relevant to morphological age. The purpose of this section is to compare the maturation rates between generalized groups of Chinese and Europeans.

Nutrition, which includes caloric intake and nutrient type, is the greatest factor affecting maturation (Krogman 1972:131; Sinclair 1973:123). Also, retarded maturation due to protein and calorie deficiency is not usually evident in the upper socio-economic levels (Tanner 1977:346). Since groups examined in this study are university students, it is assumed they are from the upper socio-economic levels and do not suffer from depressed maturation due to poor nutrition.

Environmental stress and insults may also affect maturation. Although illness, climate and geography are not primary factors affecting maturation, these variables should be mentioned (Tanner 1977:341). Unless the insults are extremely severe, however, the individual may achieve normal maturation through a process of catch-up growth (Schell and Norelli 1983:481; Stinson 1982:69; Tanner 1977:315; Krogman 1972:135-137; Mills 1942:11).

Similarly, genetic factors may influence the maturation rates of Chinese and Europeans. Krogman (1972:149) notes that skeletal maturation differences may be identified between groups. However, intragroup variation is almost as great as intergroup variation. Chinese have a tendency towards compact long bones, compared to Europeans and Africans (Kimura 1983:496). The comparative shortness of Chinese limbs may be accounted for by an earlier and shorter growth period (Tanner 1977:342). The early closure of the epiphyses of long bones is probably genetically determined and nutritionally modified (Sinclair 1973:123).

Tanner (1977) states that increased height and weight and decreased menarcheal age are characteristics of all upper socio-economic groups of Chinese, Europeans and Africans.

Height-for-age curves of the best documented groups of Europeans, Africans (in the sense of origin), and Asian peoples each in comparable and well-off circumstances, thus under similar, presumed near-optimal, nutritional conditions, show little if any difference between Negroes and Europeans: but well-off Chinese are shorter and are clearly finishing their growth earlier which may account for their shortness of limb. (p.342)

Eveleth and Tanner (1976:274) compiled and interpreted world growth studies based on well-to-do, healthy, well-fed populations of Europeans, Africans (in Africa and America), and Asiatics (Chinese, Australians, Japanese, Amerindians, Eskimos, Pacific Islanders, and Indo-mediterraneans). They state that well-off Chinese and Japanese are not as tall but

mature as early as, or earlier than, well-off Europeans and Africans. Groups with the earliest mean age for menarche include Chinese from Singapore (12.4 years) and Hong Kong (12.5 years), the mean age of menarche for groups of Europeans include Europeans from California (12.8 years) and London (13.1 years) (Eveleth and Tanner 1976:275). Hiernaux (1971:48) summarizes ethnic differences in growth and development by stating that the range of median ages of menarche is large and extends from 12.3 years to 18.8 years. Furthermore, the three earliest ages for maturation are displayed by a negro, a white, and a Chinese group. Tanner (1977:79) offers a scheme of pubescent change which occurs between the ages of 8-17 years in girls and 10-18 years in boys. It must be noted, however, that this present study deals only with university students 18-27 years old. By 18 years of age the majority of adult body configuration is achieved (Krogman 1972:105-106).

For the purposes of this research it is considered that although Chinese from upper socio-economic levels may experience an earlier maturation than Europeans of the same upper socio-economic levels, the university students examined in this study have achieved the majority of their adult body configuration. Thus, differences in sexual maturation age for the subjects are minimal.

The following outlines the physical descriptive traits of maturation and the development of secondary sex

characteristics. University students, however, fall into the developmental categories of late adolescence and early adulthood. Hence, the subjects of this study may display some or all of the following descriptive traits in various stages of development.

A complex interaction between genetic and environmental factors affects maturation (Sinclair 1973:135). Timing and sequencing are variable for the dimensional and descriptive traits of maturation. In general there are three major growth phases in the adolescent growth cycle: 1) the onset of the height spurt, 2) the maximum rate of the height spurt, and 3) the achievement of adult height (Krogman 1972:105-106). The events of male puberty include genital growth of the testes, penis, and scrotum; body hair development of auxiliary pubic, facial, arms, legs, chest, and head; a lowering of the voice and subtle changes in the total facial appearance and general body carriage (Krogman 1972:104-109). A differential growth gradient exists in the cranial-facial complex for both males and females. The greatest expected growth is in the mandible, followed by growth in the upper face and cranial base and height index (Krogman 1972:86; Tanner 1977:310). The events of female puberty include dimensional and descriptive traits: the onset of the height spurt, the bi-iliac crest increase, budding of the breast, the onset of menarche, genital development and pubic hair

growth (Krogman 1972:109-115; Garn, Pao and Rihl 1964 b).

In summary, the preceding evidence suggests that Chinese are not biologically less mature than non-Chinese. In fact, they mature slightly earlier than Europeans. As for university students, they have achieved the majority of their adult configuration. Thus, from a physical point of view, CVS and CCS are at the same level of maturity as ECS.

Physical and Perceptual Measures of Maturity

Morphological age assessment refers to a perception of chronological age based only on the biological appearance of an individual. Simply put, this refers to how old an individual looks. The physical descriptive traits and secondary sex characteristics of maturation illustrate a basis for morphological age assessments. Bennett (1979), however, makes a distinction between morphological and chronological age:

Because individuals show considerable variability in terms of their stage of maturity relative to their chronological age, chronological age is a poor indicator of maturity. (p.435)

Since morphological age is not synonymous with chronological age, morphological age is, similarly, a poor indicator of chronological age. In clinical situations several measures or indices of maturity have been developed to assess age.

These include skeletal age, dental age, and sexual age (Bennett 1979:434; Tanner 1977:79). In social situations, chronological age assessment based on morphological age assessment does not accurately reflect chronological age and, consequently, is a matter of perceived age assessment.

Morphological indicators of chronological age include: body height, weight, stature, and muscular development; the total facial appearance and the appearance of the eyes, nose, mouth, and chin; the development of the breasts and sex organs; the growth of body and facial hair and other observable secondary sex characteristics. Although the morphological indicators of chronological age are more or less based on the maturation process, not all these morphological indicators are exposed for observation, and those which are observable may be culturally modified by clothing, makeup, hairstyle, and the like.

In summary, biological differences in the skeletal and sexual maturation age between university students from the three groups are minimal. Morphological age assessments between groups of university students is largely a matter of perception and is subject to cultural modification.

Social Implications

This section examines social and cross-cultural

implications for morphological age assessments and explores the effects of perceived differences on group composition and social interaction.

Molner (1983:6) suggests a relationship between socially and culturally determined groups and perceived morphological differences:

Groupings of human populations or races are often socially or culturally determined. Even though these groupings are just as real to the observer as any biological fact . . .

Explicit in the reference group model is the concept of a shared perception, upon which the potential for a variety of social interaction can take place.

The process of self-identification involves the recognition of similarities and differences in others, in this case the recognition of maturity levels. Association with reference groups involves the assignment of those who are similar to insider groups and those who are different from outsider groups. It is reasonable, then, to ask if individuals recognize themselves as similar to their friends in morphological age. In Hypothesis 3, I conduct a comparison among the ethnic groups of students who are making the assessments. The hypothesis states that CVS, CCS and ECS will not assess their friends differently.

Tanner (1977:323 and 1978:86) and Krogman (1972:117) specifically consider morphological age and social interaction. They indicate that early or late maturation has considerable repercussions on an individual's social

behaviour. Bennett (1979:341) indicates further that

For either sex it may be the type of body one develops as a direct consequence of the rate of maturation that has major implications for social and personal functioning.

Hence, the morphological age of an individual has social implications for that individual. In the cross-cultural university setting perceived differences in morphological age between groups have implications for social interaction (Krogman 1972:117). Pang et al. (1985:100) states that if minority children encounter aversion and hostility generated by differences from the majority norms of status or physical attributes the self-concept that is developed may incorporate this information.

While Hypothesis 3 compares the ethnic groups of students making assessments, Hypothesis 4 compares ethnic groups of the friends who are being assessed. This hypothesis states that friends from each of the three ethnic groups are not assessed differently. Implicit is the suggestion that differences in perception of morphological age between ethnic groups will affect friendship group composition. Yinger (1981:255) suggests that biological differences in a broad sense inhibit group interaction.

It is generally recognized that groups which are biologically distinct from each other (have few common ancestors) and are distinguishable by appearance or genealogy as separate in inheritance are less likely, other things being equal, to experience psychological, cultural, or structural assimilation.

This study examines a narrow aspect of differences in

biology (perceived differences), in order to determine its effect on group interaction.

Summary

To summarize, this study is an examination of ethnic groups, friendship groups and morphological age assessments. Principle interest lies in the interrelationship between these factors and group interaction between CVS, CCS and ECS.

An effective use of reference group analysis historically accounts for the behavioral strategies of Chinese sojourners and immigrants. CVS and CCS are contextualized according to these respective traditions.

As well as accounting for group association, this analysis accounts for perspectives and perception adopted by the members of the group. This concept of shared perception is a central issue in the discussion of morphological age assessment.

Identification with an ethnic group forms the units of classification for this study. The ethnic composition of friendship groups forms a basis for comparison. By examining the ethnically heterogeneous/homogeneous nature of group composition we can propose some statements concerning group interaction and assimilation.

The section on morphological age assessment compares the physical maturity of Chinese and non-Chinese. There is no biological basis for a difference in the maturity level of these groups of university students. Morphological age assessment, however, by definition refers to perceived age. Perceived differences of Chinese and non-Chinese maturity may affect the formation of friendships between them.

From the preceding discussion four hypotheses are generated to examine the interrelationships between ethnic group, friendship group and morphological age assessment. The first hypothesis examines ethnic and friendship groups to determine if students establish friendships with others of their own ethnic group. The second hypothesis examines perceptions of Chinese and non-Chinese maturity levels. In this hypothesis I attempt to discover whether or not CVS, CCS and ECS perceive Chinese students as less mature than non-Chinese students. The last two hypotheses are formed to investigate the importance of morphological age assessment on friendship group composition. The third hypothesis addresses the question: Do people from each of the three ethnic groups assess their friends as morphologically the same age as themselves? The final hypothesis addresses the question: Are Chinese friends perceived as less mature? Implicit in the last two hypotheses is the search for the manner in which perception affects friendship group composition between CVS, CCS and ECS.

To declare that socially CVS and ECS form semi-autonomous groups and that CCS are somewhere in between is not a very remarkable statement. The point of this study is to examine some of the reasons these groups and subgroups form. Admittedly, morphological age assessment is an obscure factor to investigate. Many factors, both obscure and blatant, must be explored in order to understand how ethnic groups perceive themselves and others and how these perceptions affect ethnic group interaction. The social scientist interested in this type of interaction realizes that he/she must penetrate beyond the "ethnic explanation" and consider a multitude of factors explaining group interaction.

II. METHODS AND MATERIALS

In this chapter I discuss the methods and materials used in the analysis. These follow two procedures: 1) subject sorting, and 2) hypothesis testing. All subjects in this study were University of Victoria students recruited via an availability sampling technique. They were contacted in one of three ways: 1) through the Chinese Student Association, 2) through Anthropology 100 and Pacific Studies 200 classes and, 3) through personal referrals from informants (the manner in which these were arranged was left to the discretion of the informants). Subjects were informed that participation was optional. They could withdraw from the study at any time, and all personal information would remain confidential.

Materials used in this analysis included a questionnaire and a series of photographs. The questionnaire consisted of a four-page computer print-out divided into four parts (see Appendix 1). Part 1 introduced the researcher and gave a brief description of the study. It also served as a letter of permission which was signed by each student. The remainder of the questionnaire was designed to elicit responses of a qualitative and

quantitative nature. Part 2 consisted of a comparative morphological age assessment task used in conjunction with photographs. Part 3 consisted of fill-in-the-blank and multiple choice questions. Part 4 was an open discussion in which the researcher encouraged the subject to make comments, give observations and explain responses. Each interview was individually administered by the researcher.

Sorting Procedure

Although the units of classification, CVS, CCS, and ECS, are referred to as ethnic groups, these units actually constitute ethno-national groups. The criteria for sorting the students was: 1) Chinese or European (self-assessed) ethnic identity, and 2) foreign (visa) or Canadian national status. The students were assigned to one of three groups based on these criteria established in Part 3, Question 1 of the questionnaire. In the same question I also asked the subjects their place of birth, mother tongue, sex, age, and school level. This gave an indication of the range of variability within each group, information which is used in the later discussion to describe differences in group composition. The results obtained in this sorting procedure are shown in Tables 1,2, and 3.

Friendship group was operationally defined as an

individual's three closest, same sex friends at the University of Victoria. Following this definition, the friends were sorted, based on information given by the subjects, in a similar procedure to the one described for sorting the subjects. Each of the friends were assigned to a group: CVS, CCS, ECS or Other. This information obtained from Part 3, Question 2 is shown in Tables 4,5, and 6.

TABLE 1

CVS BY AGE, SCHOOL LEVEL, SEX, NATIONALITY, BIRTHPLACE,
MOTHER TONGUE, AND ETHNIC IDENTITY.

AGE

18	
19	**
20	
21	***
22	***
23	*****
24	*****
25	*
26	*
27	**
28	

(* = 1 student)

MEAN = 23.21 years
MEDIAN = 23 years
MODE = 24 years

SCHOOL LEVEL

1st. year	***
2nd. year	****
3rd. year	*****
4th. year	*****
Graduate	*

(* = 1 student)

MEAN = 3.08 years
MEDIAN = 3 years
MODE = 4 years

SEX

Males	16
Females	10

NATIONALITY

Hong Kong	18
Malaysia	4
Singapore	2
Taiwan	1
Indonesia	1

(Table 1 continued on next page...)

...TABLE 1 (continued)

BIRTHPLACE

Hong Kong	18
Malaysia	2
Singapore	2
Borneo	1
Sarawak	1
Taiwan	1
Indonesia	1

MOTHER TONGUE

Cantonese	21
Tiuchiu	2
Hokkien	1
Mandarin	1
Malay	1

ETHNIC IDENTITY

Chinese (born in) Hong Kong	18
Chinese (born in) Malaysia	2
Chinese (born in) Singapore	2
Chinese (born in) Sarawak	1
Chinese (born in) Borneo	1
Chinese (born in) Taiwan	1
Chinese (born in) Indonesia	1
TOTAL NUMBER OF CVS	26

TABLE 2

ECS BY AGE, SCHOOL LEVEL, SEX, NATIONALITY, BIRTHPLACE,
MOTHER TONGUE, AND ETHNIC IDENTITY.

AGE

18	**
19	***
20	*
21	****
22	*****
23	*****
24	*
25	**
26	
27	
28	

(* = 1 student)

MEAN = 21.57 years
MEDIAN = 22 years
MODE = 22, 23 years

SCHOOL LEVEL

1st. year	****
2nd. year	****
3rd. year	*****
4th. year	*****
Graduate	***

(* = 1 student)

MEAN = 3.04 years
MEDIAN = 3 years
MODE = 4 years

SEX

Males	8
Females	15

NATIONALITY

Canadian	22
American	1

(Table 2 continued on next page...)

...TABLE 2 (continued)

BIRTHPLACE

Canada	17
Britain	2
United States	1
Poland	1
Czechoslovakia	1
Germany	1

MOTHER TONGUE

English	20
Polish	1
Czechoslovakian	1
German/English	1

ETHNIC IDENTITY

English Canadian (born in Canada)	8
English/German Canadian (born in Canada)	4
English Canadian (born in Britain)	2
English American (born in United States)	1
Polish Canadian (born in Poland)	1
Czechoslovakian Canadian (born in Czech.)	1
French Canadian (born in Canada)	1
English/Norwegian Canadian (born in Canada)	1
Polish/English Canadian (born in Canada)	1
English/Swedish Canadian (born in Canada)	1
Russian/Romanian Canadian (born in Canada)	1
German/Jordanian Canadian (born in Germany)	1

TOTAL NUMBER OF ECS	23
---------------------	----

TABLE 3

CCS BY AGE, SCHOOL LEVEL, SEX, NATIONALITY, BIRTHPLACE,
MOTHER TONGUE, AND ETHNIC IDENTITY.

AGE

18	
19	***
20	*****
21	*
22	***
23	
24	*
25	**
26	
27	
28	

(* - 1 student)

MEAN - 21.20 years
MEDIAN - 20 years
MODE - 20 years

SCHOOL LEVEL

1st. year	****
2nd. year	***
3rd. year	*****
4th. year	*
Graduate	*

(* - 1 student)

MEAN - 2.46 years
MEDIAN - 3 years
MODE - 3 years

SEX

Males	10
Females	5

NATIONALITY

Canadian	15
----------	----

(Table 3 continued on next page...)

...TABLE 3 (continued)

BIRTHPLACE

Canada	9
Hong Kong	2
Taiwan	2
Malaysia	1
Singapore	1

MOTHER TONGUE

English	5
Cantonese	5
Mandarin	2
Toysan	2
Hakka	2

ETHNIC IDENTITY

Chinese Canadian (born in Canada)	9
Chinese Canadian (born in Hong Kong)	2
Chinese Canadian (born in Taiwan)	2
Chinese Canadian (born in Singapore)	1
Chinese Canadian (born in Malaysia)	1
TOTAL NUMBER OF CCS	15

TABLE 4

FRIENDS OF CVS BY AGE, SCHOOL LEVEL, SEX, NATIONALITY,
BIRTHPLACE, MOTHER TONGUE, AND ETHNIC IDENTITY.

AGE

18	
19	*****
20	*****
21	*****
22	*****
23	*****
24	*****
25	*****
26	****
27	***
28	
29	
30	*
31	
32	
33	*
34	*
35	

(* = 1 friend)

MEAN = 22.95 years
MEDIAN = 23 years
MODE = 23 years

SCHOOL LEVEL

1st. year	*****
2nd. year	*****
3rd. year	*****
4th. year	*****
Graduate	***

(* = 1 friend)

MEAN = 2.13 years
MEDIAN = 3 years
MODE = 4 years

(Table 4 continued on next page...)

...TABLE 4 (continued)

SEX		BIRTHPLACE	
Males	48	Hong Kong	41
Females	30	Canada	18
		Malaysia	6
		Singapore	3
		Indonesia	3
		Vietnam	1
		Philippines	1
		Taiwan	1
		Iran	1
		Tanzania	1
		Britain	1
		New Zealand	1
NATIONALITY		MOTHER TONGUE	
Hong Kong	37	Cantonese	44
Canada	24	English	21
Malaysia	6	Hokkien	5
Singapore	3	Indonesian	2
Indonesia	3	Hakka	1
Vietnam	1	Mandarin	1
America	1	Hainan	1
Iran	1	Malay	1
Tanzania	1	Persian	1
Taiwan	1	Swahili	1
ETHNIC IDENTITY			
Chinese from Hong Kong			37
Chinese Malaysian			6
Chinese Singaporean			3
Chinese Indonesian			3
Chinese Taiwanese			1
Chinese Vietnamese			1
Chinese Canadian			5
Chinese American			1
English Canadian			16
Polish Canadian			1
Japanese Canadian			1
Filipino Canadian			1
Persian Iranian			1
Tanzanian			1
TOTAL NUMBER OF FRIENDS			78

TABLE 5

FRIENDS OF ECS BY AGE, SCHOOL LEVEL, SEX, NATIONALITY,
BIRTHPLACE, MOTHER TONGUE, AND ETHNIC IDENTITY.

AGE

18	***
19	*****
20	***
21	*****
22	*****
23	*****
24	***
25	****
26	***
27	*
28	**
29	
30	*
31	
32	*
33	
34	*
35	

(* = 1 friend)

MEAN = 22.49 years

MEDIAN = 22 years

MODE = 23 years

SCHOOL LEVEL

1st. year	*****
2nd. year	*****
3rd. year	*****
4th. year	*****
Graduate	*****

(* = 1 friend)

MEAN = 3.23 years

MEDIAN = 3 years

MODE = 3 years

(Table 5 continued on next page...)

...TABLE 5 (continued)

SEX		BIRTHPLACE	
Males	24	Canada	54
Females	45	Hong Kong	5
		Britain	3
NATIONALITY		India	2
		Iran	2
Canadian	58	United States	1
Hong Kong	5	Yugoslavia	1
American	2	Indonesia	1
Iranian	2		
East Indian	2	MOTHER TONGUE	
		English	57
		Cantonese	5
		Hindi	2
		Persian	2
		English/Chinese	1
		Yugoslavian	1
		Spanish/English	1
ETHNIC IDENTITY			
Chinese from Hong Kong			5
Chinese Canadian			2
English Canadian			33
German Canadian			5
French Canadian			3
Polish Canadian			2
Italian Canadian			2
Yugoslavian Canadian			2
Hungarian Canadian			2
Spanish Canadian			2
Dutch Canadian			1
Russian Canadian			1
Swedish Canadian			1
Ukrainian/English Canadian			1
German/Scottish Canadian			1
German/Irish American			1
Czechoslovakian/English Canadian			1
AmerIndian Canadian			1
Hindi East Indian			2
Persian Iranian			1
TOTAL NUMBER OF FRIENDS			69

TABLE 6

FRIENDS OF CCS BY AGE, SCHOOL LEVEL, SEX, NATIONALITY,
BIRTHPLACE, MOTHER TONGUE, AND ETHNIC IDENTITY.

AGE

18	*
19	*****
20	*****
21	*****
22	*****
23	****
24	**
25	**
26	*
27	*
28	
29	
30	
31	
32	
33	
34	
35	

(* = 1 friend)

MEAN = 21.42 years
MEDIAN = 21 years
MODE = 21 years

SCHOOL LEVEL

1st. year	*****
2nd. year	*****
3rd. year	*****
4th. year	*****
Graduate	**

(* = 1 friend)

MEAN = 2.66 years
MEDIAN = 3 years
MODE = 4 years

(Table 6 continued on next page...)

...TABLE 6 (continued)

SEX		BIRTHPLACE	
Males	30	Canada	27
Females	15	Hong Kong	8
		Britain	3
		China	2
		Malaysia	1
		Singapore	1
		Germany	1
		India	1
		Argentina	1
NATIONALITY		MOTHER TONGUE	
Canada	33	English	28
Hong Kong	7	Cantonese	12
Malaysia	1	Hakka	1
Singapore	1	Mandarin	1
China	1	Toysan	1
India	1	Hindi	1
Argentina	1	Spanish	1
ETHNIC IDENTITY			
Chinese from Hong Kong			6
Chinese Malaysian			1
Chinese Singaporean			1
Chinese from China			1
Chinese Canadian			10
English Canadian			17
Italian Canadian			2
German Canadian			3
Norwegian Canadian			1
Japanese Canadian			1
Spanish Argentinian			1
Hindi East Indian			1
TOTAL NUMBER OF FRIENDS			45

Hypothesis Testing

In this study, I relied heavily on hypothesis testing for my method of data analysis. As mentioned earlier, four hypotheses were formulated to examine the possible relationships between ethnic identity, friendship group, and morphological age assessment. These hypotheses expressed as null hypotheses according to statistical convention (Mueller et. al. 1977) are as follows:

- 1) There is no significant difference among CVS, CCS and ECS with respect to the ethnic composition of their friendship groups.
- 2) There is no significant difference among CVS, CCS and ECS with respect to their morphological age assessments of Chinese and Euro-Canadian students.
- 3) There is no significant difference among CVS, CCS and ECS with respect to morphological age assessments of their friends.
- 4) There is no significant difference among friends who are CVS, CCS and ECS with respect to morphological age assessments of those friends.

All four hypotheses, with the exception of the ranked data in Hypothesis 2, Condition 2, were subjected to a standard Chi-squared statistical testing (Mueller et. al. 1977:482-487). Hypothesis 2, Condition 2 was subjected to

Kendall's (W) concordance for ranked value statistics and then converted to Chi-squared (Hays 1973:801-803), which is explained latter in the appropriate section.

The use of Chi-squared statistics enabled comparisons to be made among the three ethnic units of classification. This test examined the null hypothesis that two or more populations have the same proportion of cases in each given category. According to Mueller et. al. (1977:481) the general procedure for Chi-squared statistical analysis is as follows: 1) state the hypothesis to be tested, 2) set the significance levels, 3) select the sample cases, 4) calculate the test statistics, and 5) make a decision for or against the stated hypothesis.

The null hypothesis states that populations are identical in their proportions. Written in statistical subscript, the null hypothesis tested is $H_0: P_1 = P_2 = P_3$. Where H_0 represents the null hypothesis, P_1 represents the CVS population, P_2 represents the ECS population, and P_3 represents the CCS population. The significance level of Alpha (α) was arbitrarily set at the 0.05 level which refers to a probability of less than 5% that the samples represent the same population. The decision to accept or reject the null hypothesis was based on this significance level. Coded data obtained from the aforementioned questionnaire are presented in the form of 3x3 and 2x3 contingency tables. Observed frequencies and statistics, as well as observed

frequencies converted into percentages of unit totals, are presented in table format to facilitate the description and comparison of variables.

Mueller et. al. (1977:487) states that Chi-squared is valid as a reference for only relatively large expected cell frequencies. Although there is no categorical answer Mueller cautions against statistical inference based on expected frequencies less than five. Low expected frequencies were a problem with the data for Hypothesis 1 and Hypothesis 2, Condition 1. The presence of some low expected cell frequencies increased the risk of rejecting a true hypothesis or accepting a false one. There is, however, nothing to stop the investigator from speculating about the representativeness of the material.

A) Hypothesis 1

In Hypothesis 1, I examined the relationship between the variables ethnic group and friendship group. Part 3, Question 1 established the ethnic identities of the subjects and Part 3, Question 2 established the ethnic identities of each of the subjects' three closest friends. In this hypothesis I compared CVS, CCS and ECS to determine if students form friendships with others of the same ethnic group.

B) Hypothesis 2

In Hypothesis 2, I examined the differences among CVS, CCS and ECS with respect to their morphological age assessments of Chinese and Euro-Canadian students. This was examined under two conditions: the subjects' opinions concerning morphological differences, and the subjects' performance in a comparative morphological age assessment task.

i) Condition 1

In examining the first condition, I asked subjects to consider whether university students of Chinese ancestry appear older, younger, or no different, when compared to university students of European ancestry. In this question I compared the opinions of the three ethnic groups regarding the physical maturity of Chinese students.

ii) Condition 2

In the second condition, subjects were shown photographs of Chinese and non-Chinese students and asked to arrange them in relative rank order from the person who looks the youngest to the person who looks the eldest. This

task was designed to determine if the three ethnic groups perceive Chinese students as less mature.

This task was based on 10 pairs of 4"x6" Kodak Ektachrome, 100 ASA colour print photographs. Each photograph was of one full-figured person in a relaxed three-quarter stance. Each person was fully clothed in summer attire, ranging from jeans and shirt to shorts and T-shirt. Whenever possible, the photographs were taken out-of-doors to take advantage of natural light and naturalistic backgrounds. The camera angle was approximately 10 degrees above horizon, the camera height was approximately 1 meter and the camera distance was approximately 1.5 meters from the subject. The camera used was a Pentax single reflex 35mm. with a standard 50mm. lens. This photographic technique was chosen because the procedure was fast and easy and it depicted each person in a relaxed and casual attitude. It was felt that photographs of this style would more closely mirror situations in a university context than "clinical style" photographs.

Subjects for the photographs were obtained through availability sampling at a large Ontario university. This ensured anonymity of the photograph subjects. Letters of permission were obtained from each of the 30 photograph subjects. Three photographs were taken of each subject. As well, the name, age, height, weight, school level, nationality, mother tongue, and ethnic identity, were

recorded for each subject in order to sort the photographs. The photographs were divided into two groups: students of Chinese ancestry, and students of European ancestry. CVS and CCS were grouped together because of their morphological similarities. Photographs of students of Chinese ancestry were paired with photographs of students of European ancestry according to comparable height, weight, stature, and age. On the basis of comparability of pairs and the quality of the photographs, 10 pairs were chosen -- 5 pairs of male students and 5 pairs of female students. Table 2 presents the age, school level, sex, height, weight, nationality, mother tongue, and ethnic identity for each of the 20 photographic subjects chosen. Photographs were arranged randomly when shown to the subjects for ranking. Kendall's statistic (W), the coefficient of concordance for ranked value statistical analysis, was used to determine the concordance for the subjects' ranked order of the photographs from youngest to eldest. In other words, the extent to which the subjects' (M) distinct ranked order of the photographs tend to be similar. This statistical analysis was used to answer the question: how much do these ranked orders tend to agree or show "concordance"? The coefficient (W) is closely related to the average ranked scores among the ranked orders. According to Hays (1973:801), procedures for calculating Kendall's coefficient of concordance are as follows: data

are first placed into a table with subjects in rows (M) and ranks in columns (N). In the cell for column (j) and row (k) appears the ranked number assigned to the photograph (j) by subject (k). Data are then statistically manipulated via the formula for Kendall's coefficient of concordance in which the maximum possible variance of ranked sums is divided by the variance of ranked sums (Hays 1973:802).

$$W = \left[\frac{12 \sum T^2}{m^2 N(N-1)} \right] - \frac{3(N+1)}{N-1}$$

Kendall's coefficient of concordance is based on the assumption that if each student had given the same rank to the same photograph, then one column should total to (M1), another to (M2), and so on, until the largest sum should be (M20). On the other hand, if there was complete disagreement between the students there would be no tendency for high or low ratings to occur in particular columns, and thus it would be expected that the sum of each column should be about the same.

The product of Kendall's coefficient of concordance permitted a statistical decision to be made concerning the degree of concordance among the students, based on the variance of the ranked sums and expressed as a percentage of the maximum possible. This product was also easily converted into Chi-squared statistics which enabled comparisons among ethnic groups to be made.

TABLE 7

PHOTOGRAPHS OF EURO-CANADIAN STUDENTS AND CHINESE STUDENTS
BY AGE, SCHOOL LEVEL, SEX, HEIGHT, WEIGHT, NATIONALITY,
MOTHER TONGUE, AND ETHNIC IDENTITY.

EURO-CANADIAN STUDENTS

CHINESE STUDENTS

AGE

	years		years
1a	20	1b	24
2a	24	2b	25
3a	24	3b	21
4a	21	4b	22
5a	17	5b	18
6a	20	6b	21
7a	22	7b	21
8a	17	8b	17
9a	24	9b	24
10a	21	10b	20

MEAN = 21.00 years
MEDIAN = 21 years
MODE = 24 years

MEAN = 21.30 years
MEDIAN = 21 years
MODE = 21 years

SCHOOL LEVEL

	years		years
1a	4th.	1b	4th.
2a	graduate	2b	graduate
3a	3rd.	3b	4th.
4a	3rd.	4b	3rd.
5a	grade 12	5b	grade 13
6a	3rd.	6b	3rd
7a	4th.	7b	1st.
8a	grade 12	8b	grade 12
9a	2nd.	9b	4th.
10a	2nd.	10b	3rd.

MEAN = 2.20 years
MEDIAN = 3 years
MODE = 3 years

MEAN = 2.40 years
MEDIAN = 3 years
MODE = 3,4 years

(Table 7 continued on next page...)

...TABLE 7 (continued)

EURO-CANADIAN STUDENTS		CHINESE STUDENTS	
SEX			
MALES	5	MALES	5
FEMALES	5	FEMALES	5
HEIGHT			
1a	163cm.	1b	163cm.
2a	175cm.	2b	160cm.
3a	173cm.	3b	173cm.
4a	173cm.	4b	175cm.
5a	159cm.	5b	160cm.
6a	183cm.	6b	169cm.
7a	170cm.	7b	160cm.
8a	158cm.	8b	158cm.
9a	173cm.	9b	179cm.
10a	189cm.	10b	180cm.
MEAN = 171.60cm.		MEAN = 167.70cm.	
MEDIAN = 173cm.		MEDIAN = 166cm.	
MODE = 173cm.		MODE = 160cm.	
WEIGHT			
1a	50kg.	1b	50kg.
2a	64kg.	2b	52kg.
3a	64kg.	3b	55kg.
4a	73kg.	4b	66kg.
5a	41kg.	5b	45kg.
6a	75kg.	6b	59kg.
7a	56kg.	7b	48kg.
8a	50kg.	8b	55kg.
9a	77kg.	9b	61kg.
10a	66kg.	10b	68kg.
MEAN = 61.60kg.		MEAN = 55.90kg.	
MEDIAN = 64kg.		MEDIAN = 55kg.	
MODE = 50,60kg.		MODE = 55kg.	

(Table 7 continued on next page...)

...TABLE 7 (continued)

EURO-CANADIAN STUDENTS

CHINESE STUDENTS

NATIONALITY

1a	Canadian	1b	Hong Kong
2a	Canadian	2b	Canadian
3a	Canadian	3b	Hong Kong
4a	Canadian	4b	Malaysian
5a	American	5b	Hong Kong
6a	American	6b	Canadian
7a	Canadian	7b	Hong Kong
8a	Canadian	8b	Canadian
9a	Canadian	9b	Malaysian
10a	Canadian	10b	Hong Kong

MOTHER TONGUE

1a	English	1b	Cantonese
2a	English	2b	English
3a	English	3b	Hakka
4a	English	4b	Hokkien
5a	English	5b	Cantonese
6a	English	6b	English
7a	English	7b	Cantonese
8a	English	8b	English
9a	English	9b	Mandarin
10a	French	10b	Cantonese

ETHNIC IDENTITY

1a	French/Romanian Canadian	1a	Chinese Hong Kong
2a	English/French Canadian	2b	Chinese Canadian
3a	English Canadian	3b	Chinese Hong Kong
4a	German Canadian	4b	Chinese Malaysian
5a	Hungarian American	5b	Chinese Hong Kong
6a	Hungarian American	6b	Chinese Canadian
7a	English Canadian	7b	Chinese Hong Kong
8a	English Canadian	8b	Chinese Canadian
9a	English Canadian	9b	Chinese Malaysian
10a	French Canadian	10a	Chinese Hong Kong

C) Hypothesis 3

In Hypothesis 3, I compared the differences among the CVS, CCS and ECS with respect to their assessments of their friends' morphological ages. Part 3, Question 3 asked the subjects to assess each of their three closest friends as older, younger, or no different, in comparison to themselves. In this question I investigated how students from different ethnic groups perceive the maturity of their friends and if there is a tendency for students to maintain friendships with others of similar maturity.

D) Hypothesis 4

Finally, in Hypothesis 4, I examined the relationship between the ethnic group of friends and morphological age assessments for those friends. Part 3, Question 2 asked the subjects for the ethnic identity of each of their three closest friends, which was compiled with the previously mentioned morphological age assessment for each of these friends.

In doing this, I compared how maturity of friends from different ethnic groups are perceived. Implicit in both Hypotheses 3 and 4 is the suggestion that differences in

morphological age assessments between Chinese and non-Chinese affects friendship group composition.

II. RESULTS

This chapter describes the statistical results for Chi-squared and Kendall's concordance upon which the decisions to accept or reject each of the four previously stated hypotheses were based. Observed frequencies, statistical analyses, and percentage totals are presented in table format in the back of the study. Although data are shown from friends of miscellaneous ethnic groups (ethnic identities other than one of the three ethnic groups of this study), they are not included in the test statistics since they are not one of the study groups of interest and their numbers are too small for statistical consideration. Each following section briefly summarizes the statistical results.

A) Hypothesis 1

The first hypothesis examined whether ethnic identity is a factor in friendship group composition. The three ethnic groups are found to be significantly different with

respect to the ethnic identities of their friends.

To summarize the data:

- 1) the greatest difference occurs between CVS and ECS and the smallest difference between ECS and CCS, as shown in Table 8.
- 2) the greatest percentages of friends for CVS and ECS are drawn from their own respective ethnic groups, whereas the greatest percentage of friends for CCS are from the ECS group, as shown in Table 9.

I interpret this data as indicating the ethnic composition of friendship groups differs among CVS, CCS and ECS. CVS and ECS tend to maintain friendships with other students of the same ethnic group as themselves, and CCS tend to maintain friendships with ECS. Overall, it appears that CVS and ECS are ethnically homogeneous and CCS are ethnically heterogeneous in their friendship associations. The effects of ethnicity, language, and demography on friendship composition are discussed in the chapter "Summary and Discussion."

TABLE 8

OBSERVED FREQUENCIES AND CHI-SQUARED STATISTICS FOR
HYPOTHESIS 1: ETHNIC GROUP OF SUBJECTS AND ETHNIC GROUP OF
THEIR THREE CLOSEST FRIENDS.

(observed frequencies in numbers of friends)

ETHNIC GROUP OF FRIENDS	ETHNIC GROUP OF SUBJECTS			TOTAL
	CVS	ECS	CCS	
CVS	51	5	9	65
ECS	17	58	23	98
CCS	6	2	10	18
TOTAL	74	65	42	181

.....

CHI SQUARED = 78.85, DEGREES OF FREEDOM = 4, ALPHA (at
0.05 sig. level) = 9.49, CHI-SQUARED IS GREATER THAN
ALPHA, REJECT NULL HYPOTHESIS.

TOTAL	CVS	ECS	*	139
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.....

CHI-SQUARED = 57.54, DEGREES OF FREEDOM = 2, ALPHA (at
0.05 sig. level) = 5.99, CHI-SQUARED IS GREATER THAN
ALPHA, REJECT NULL HYPOTHESIS.

TOTAL	CVS	*	CCS	116
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.....

CHI-SQUARED = 24.33, DEGREES OF FREEDOM = 2, ALPHA (at
0.05 sig. level) = 5.99, CHI-SQUARED IS GREATER THAN
ALPHA, REJECT NULL HYPOTHESIS.

TOTAL	*	ECS	CCS	107
-------	---	-----	-----	-----

.....

CHI-SQUARED = 17.45, DEGREES OF FREEDOM = 2, ALPHA (at
0.05 sig. level) = 5.99, CHI-SQUARED IS GREATER THAN
ALPHA, REJECT NULL HYPOTHESIS

	CVS	ECS	CCS	TOTAL
other*	4	4	3	11
total*	78	69	45	192

* ethnic groups not used in calculations.

TABLE 9

PERCENTAGES FOR HYPOTHESIS 1: ETHNIC COMPOSITION OF
FRIENDSHIP GROUPS FOR CVS, ECS, AND CCS.

(observed frequencies in percentages for column totals of
ethnic groups)

ETHNIC GROUP OF FRIENDS	ETHNIC GROUP OF SUBJECT		
	CVS	ECS	CCS
CVS	68.92%	7.69%	21.43%
ECS	22.97%	89.23%	54.76%
CCS	8.11%	3.08%	23.81%
TOTAL	100.00%	100.01%	100.00%
other ethnic groups not included.			

Hypothesis 2, Condition 1

Hypothesis 2 compared the three ethnic groups to determine if Chinese students are perceived as less mature than Euro-Canadian students. Summary of the data for the first condition which examined the opinions of the subjects, is as follows:

- 1) CVS and ECS are significantly different from each other, but both groups are statistically similar to CCS, as shown in Tables 12, 13, and 14.
- 2) The majority of CVS and CCS believe that Chinese students appear younger. ECS, however, are divided in their opinions and state that Chinese students appear either younger, or no different than, ECS.

I propose that CVS and CCS share common perspectives due to the fact that they are both Chinese in morphology and heritage. ECS obviously differ in these aspects. These results suggest that CVS and CCS share a perception of Chinese physical maturity that is not shared by ECS. This supports the contention that a common Chinese identity between CVS and CCS implies a shared perception.

TABLE 10

OBSERVED FREQUENCIES AND CHI-SQUARED STATISTICS FOR HYPOTHESIS 2, CONDITION 1: ETHNIC GROUP OF SUBJECTS AND THEIR MORPHOLOGICAL AGE ASSESSMENTS OF CHINESE STUDENTS COMPARED TO EURO-CANADIAN STUDENTS.

(observed frequencies in opinions per subject)

OPINION	ETHNIC GROUP OF SUBJECTS			TOTAL
	CVS	ECS	CCS	
YOUNGER	20	11	12	43
OLDER	4	2	2	8
NO DIFF.	2	10	1	13
TOTAL	26	23	15	64

.....

CHI SQUARED = 11.97, DEGREES OF FREEDOM = 4, ALPHA (at 0.05 sig. level) = 9.49, CHI-SQUARED IS GREATER THAN ALPHA, REJECT NULL HYPOTHESIS.

TOTAL	CVS	ECS	*	49
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.....

CHI-SQUARED = 8.48, DEGREES OF FREEDOM = 2, ALPHA (at 0.05 sig. level) = 5.99, CHI-SQUARED IS GREATER THAN ALPHA, REJECT NULL HYPOTHESIS.

TOTAL	CVS	*	CCS	41
-------	-----	---	-----	----

.....

CHI-SQUARED = 0.05, DEGREES OF FREEDOM = 2, ALPHA (at 0.05 sig. level) = 5.99, CHI-SQUARED IS LESS THAN ALPHA, ACCEPT NULL HYPOTHESIS.

TOTAL	*	ECS	CCS	38
-------	---	-----	-----	----

.....

CHI-SQUARED = 5.98, DEGREES OF FREEDOM = 2, ALPHA (at 0.05 sig. level) = 5.99, CHI-SQUARED IS LESS THAN ALPHA, ACCEPT NULL HYPOTHESIS

* ethnic groups not used in calculations.

TABLE 11

PERCENTAGES FOR HYPOTHESIS 2, CONDITION 1:
MORPHOLOGICAL AGE ASSESSMENTS OF CHINESE STUDENTS
COMPARED TO EURO-CANADIAN STUDENTS FOR CVS, ECS, AND
CCS.

(observed frequencies in percentages of opinions for column
totals of ethnic groups)

OPINIONS	ETHNIC GROUP OF SUBJECT		
	CVS	ECS	CCS
YOUNGER	76.92%	47.82%	80.00%
OLDER	15.39%	8.70%	13.33%
NO DIFF.	7.69%	43.48%	6.67%
TOTAL	100.00%	100.00%	100.00%

ii) Condition 2

The second condition examined group perception by using a comparative morphological age assessment task. The results of Kendall's coefficient for the three ethnic groups are shown in Tables 12, 13, 14, and 15.

To summarize the results:

- 1) there is a moderate agreement within each group with respect to the ranking of the photographs.
- 2) there is little difference among the three ethnic groups regarding their rankings of the photographs.
- 3) all three groups rank a slight majority of the photographs of Chinese students as younger and, correspondingly, a slight majority of the photographs of ECS as older, as shown in Table 16.

It appears that regardless of ethnic group, there is a slight tendency to perceive Chinese students as morphologically younger than ECS. CVS and CCS remain consistent, while ECS vary, in their opinions and their task performances. Possible reasons for this inconsistency might include limited contact on the part of ECS with the other two groups.

TABLE 12

OBSERVED RANKED ORDERS, KENDALL'S CONCORDANCE AND CHI-SQUARE STATISTICS FOR HYPOTHESIS 2, CONDITION 2: MORPHOLOGICAL AGE ASSESSMENT OF THE PHOTOGRAPHS BY CVS.

(observed frequencies in ranked order per person)

SUBJECTS	RANKED ORDER OF PHOTOGRAPHS																			
	1a	1b	2a	2b	3a	3b	4a	4b	5a	5b	6a	6b	7a	7b	8a	8b	9a	9b	0a	0b
A	4	18	20	8	3	7	10	12	1	2	9	16	15	5	17	6	19	11	13	14
B	2	9	18	20	13	14	12	15	3	1	6	4	16	10	6	11	8	19	17	7
C	5	14	20	17	8	9	18	12	1	2	3	15	19	10	16	6	4	13	11	17
D	5	13	20	18	4	3	10	8	2	1	15	9	7	16	6	17	19	11	14	12
E	5	12	20	4	15	7	16	3	1	2	8	11	17	18	6	10	14	9	13	19
F	6	4	20	10	3	7	16	15	2	1	9	17	19	11	5	8	12	18	14	13
G	4	18	20	11	7	10	14	13	2	1	9	16	15	6	3	8	19	17	5	12
H	3	13	19	5	12	6	15	8	2	1	9	18	17	11	4	10	20	16	7	14
I	3	14	20	10	8	9	13	7	2	1	6	17	15	19	4	9	12	16	11	18
J	3	11	20	14	7	6	16	17	2	1	10	18	15	9	13	19	5	2	4	8
K	3	20	18	15	10	17	7	8	1	2	6	14	19	5	4	16	11	13	12	9
L	4	11	20	14	5	7	12	10	1	2	8	15	19	17	3	13	9	16	6	18
M	3	12	20	13	4	6	9	17	1	2	15	19	8	11	5	7	16	10	14	18
N	5	3	19	14	16	4	17	6	2	1	11	7	20	15	13	12	18	8	10	9
O	3	8	20	17	4	7	13	11	1	2	5	15	9	14	6	18	16	19	12	10
P	7	12	20	9	3	4	13	14	2	1	10	18	15	16	11	8	19	17	6	5
Q	3	19	20	14	7	12	9	15	1	2	8	18	6	17	10	11	13	16	5	4
R	3	6	17	12	10	4	8	13	2	1	5	18	15	11	9	19	14	20	7	16
S	4	10	18	12	5	9	16	7	1	2	14	20	8	13	3	6	17	15	19	11
T	8	16	20	17	14	3	12	7	1	2	9	18	11	19	4	13	5	15	6	10
U	3	7	20	8	13	4	14	17	1	2	10	16	11	19	5	12	6	18	9	15
V	4	13	20	18	5	6	9	12	1	2	11	16	7	10	3	15	17	14	8	19
W	3	15	20	14	5	7	18	10	2	1	8	16	13	9	4	11	19	17	6	12
X	2	19	20	15	4	11	6	16	1	3	5	18	14	10	12	9	7	17	8	13
Y	3	18	12	15	4	6	9	14	1	2	8	13	10	20	5	11	16	19	7	17
Z	4	17	20	11	18	10	12	6	2	1	14	13	16	19	5	15	7	8	3	9
.....	102	501	207	314	39	231	356	182	342	247										
.....	332	325	195	293	41	395	340	296	384	329										

KENDALL'S CONCORDANCE (W) = 0.58, CHI-SQUARE = 286.52,
 DEGREES OF FREEDOM = 19, ALPHA (at 0.05 sig. level) = 30.14,
 CHI-SQUARE IS GREATER THAN ALPHA.

TABLE 13

OBSERVED RANKED ORDERS, KENDALL'S CONCORDANCE AND CHI-SQUARE STATISTICS FOR HYPOTHESIS 2, CONDITION 2: MORPHOLOGICAL AGE ASSESSMENTS OF THE PHOTOGRAPHS BY ECS

(observed frequencies in ranked order per person)

SUBJECTS	RANKED ORDER OF PHOTOGRAPHS																			
	1a	1b	2a	2b	3a	3b	4a	4b	5a	5b	6a	6b	7a	7b	8a	8b	9a	9b	0a	0b
A	3	20	17	6	19	5	7	16	1	2	10	15	13	8	4	14	9	18	11	12
B	16	19	18	15	11	7	6	8	1	2	5	13	20	9	10	17	12	14	3	4
C	6	17	20	10	3	5	16	11	1	2	9	15	13	14	4	18	12	19	8	7
D	3	12	20	8	5	7	18	13	2	1	6	19	15	4	9	14	11	17	10	16
E	5	15	12	9	8	4	17	13	1	2	14	16	20	7	6	11	18	19	3	10
F	10	20	9	16	3	17	6	8	2	1	4	18	13	15	11	12	7	14	5	19
G	3	18	10	8	9	5	17	7	1	2	11	19	16	13	4	12	20	15	6	14
H	3	18	20	7	4	6	9	16	1	2	10	14	19	13	5	8	15	17	11	12
I	3	16	20	13	8	17	11	9	1	2	15	7	19	10	4	12	18	14	5	6
J	5	6	7	10	12	3	4	13	1	2	11	18	9	8	16	14	17	20	19	15
K	3	16	6	15	13	8	10	17	1	2	7	20	18	5	4	11	9	19	12	14
L	5	14	18	6	13	11	7	15	2	1	9	20	16	3	4	8	19	17	10	12
M	1	12	20	14	6	4	18	15	3	2	7	11	17	9	5	8	16	13	10	19
N	8	20	14	19	4	13	5	10	2	1	3	15	12	6	16	9	17	18	7	11
O	3	16	17	11	4	13	9	8	2	1	10	18	20	19	5	15	6	14	7	12
P	5	15	16	4	3	8	14	17	1	2	13	19	20	6	11	10	9	18	12	7
Q	3	20	13	6	4	17	10	7	1	2	9	19	16	11	5	12	15	18	8	14
R	3	16	20	9	18	2	6	4	19	1	10	15	14	5	11	13	17	12	8	7
S	4	5	19	13	3	12	18	9	1	2	15	17	20	10	8	7	16	11	6	14
T	1	17	7	12	6	4	14	10	8	2	9	19	13	18	3	11	16	20	5	15
U	3	18	15	10	8	13	4	17	1	2	5	20	12	11	6	14	9	19	7	16
V	7	9	15	8	14	11	12	13	2	1	18	20	17	6	3	5	10	19	16	4
W	3	17	18	13	15	6	14	12	1	2	8	19	20	16	4	9	7	10	5	11
	106	351	193	252	56	218	372	158	305	194										
	356	242	198	268	39	386	226	264	375	271										

KENDALL'S CONCORDANCE (W) = 0.55, CHI-SQUARE = 240.35,
 DEGREES OF FREEDOM = 19, ALPHA (at 0.05 sig. level) = 30.14,
 CHI-SQUARE IS GREATER THAN ALPHA.

TABLE 14

OBSERVED RANKED ORDERS, KENDALL'S CONCORDANCE AND CHI-SQUARE STATISTICS FOR HYPOTHESIS 2, CONDITION 2: MORPHOLOGICAL AGE ASSESSMENT OF THE PHOTOGRAPHS BY CCS

(observed frequencies in ranked order per person)

SUBJECTS	RANKED ORDER OF PHOTOGRAPHS																			
	1a	1b	2a	2b	3a	3b	4a	4b	5a	5b	6a	6b	7a	7b	8a	8b	9a	9b	0a	0b
A	4	14	20	6	12	5	10	13	1	2	8	18	15	11	3	7	19	17	9	16
B	16	20	19	5	3	13	14	15	1	2	18	17	10	6	12	4	9	11	8	7
C	3	16	19	9	6	8	14	12	1	2	7	20	5	15	4	10	13	18	11	17
D	3	12	19	10	7	5	6	14	1	2	9	18	11	16	4	15	20	17	8	13
E	10	15	20	14	2	12	13	7	4	1	9	18	17	8	19	5	11	16	6	3
F	3	15	17	13	6	12	7	14	1	2	10	16	18	11	9	20	8	19	4	5
G	7	11	17	20	3	4	10	8	1	2	9	16	19	6	5	18	12	14	13	15
H	4	12	20	11	2	8	16	15	3	1	9	19	13	5	6	7	17	18	14	10
I	2	18	16	5	6	7	17	12	4	1	9	15	19	13	10	14	20	11	8	3
J	2	81	17	10	1	16	11	15	3	4	14	20	13	7	5	9	12	19	6	8
K	3	20	14	16	5	4	18	7	1	2	6	15	17	9	10	8	11	19	13	12
L	3	10	17	13	19	4	16	7	2	1	11	20	9	14	8	15	6	18	5	12
M	4	17	19	20	13	5	8	11	1	2	9	12	6	7	3	14	10	18	15	16
N	4	11	20	18	3	19	17	13	1	2	7	16	6	9	5	10	8	14	12	15
O	12	11	3	15	8	10	20	19	1	2	7	13	17	16	4	18	5	14	6	9
	80	257		96	197		26	142	195	107	181	138								
	220	185	132	182	28	253	153	174	243	161										

KENDALL'S CONCORDANCE (W) = 0.56, CHI-SQUARE = 159.6, DEGREES OF FREEDOM = 19, ALPHA (at 0.05 sig. level) = 30.14, CHI-SQUARE IS GREATER THAN ALPHA.

TABLE 15

OBSERVED TOTALS, KENDALL'S CONCORDANCE AND CHI-SQUARE STATISTICS FOR HYPOTHESIS 2, CONDITION 2: MORPHOLOGICAL AGE ASSESSMENT OF THE PHOTOGRAPHS BY CVS, ECS, AND CCS.

COLUMN TOTALS FOR CVS										
A	102	501	207	14	39	231	356	182	342	247
B	332	325	195	293	41	395	340	296	384	329
.....										
COLUMN TOTALS FOR ECS										
A	106	351	193	252	56	218	372	158	305	194
B	356	242	298	268	39	386	226	158	375	271
.....										
COLUMN TOTALS FOR CCS										
A	80	257	96	197	26	142	195	107	181	138
B	220	185	132	182	28	253	153	174	243	161
.....										
COLUMN TOTAL FOR CVS, ECS, AND CCS COMBINED										
A	288	1109	496	763	121	591	925	447	828	579
B	908	752	525	743	108	1034	719	734	1002	761

KENDALL'S CONCORDANCE (W) = 0.54, CHI-SQUARE = 656.64,
 DEGREES OF FREEDOM = 19, Alpha (at 0.05 sig. level) = 30.14,
 CHI-SQUARE IS GREATER THAN ALPHA.

TABLE 16

PERCENTAGE TOTALS FOR HYPOTHESIS 2, CONDITION 2:
MORPHOLOGICAL AGE ASSESSMENT OF PHOTOGRAPHS BY CVS, ECS, AND
CCS.

(observed frequencies in percentages of photographs ranked
in younger half - rank value less than 10 - and percentages
of photographs ranked in older half - rank value less than
10.)

PHOTOGRAPHS RANKED YOUNGER	ETHNIC GROUP OF SUBJECTS		
	CVS	ECS	CCS
CHINESE	28.85%	29.57%	30.33%
EURO-CANADIAN	21.15%	20.43%	19.67%
.....			
PHOTOGRAPHS RANKED OLDER	ETHNIC GROUP OF SUBJECTS		
	CVS	ECS	CCS
CHINESE	21.15%	20.43%	19.67%
EURO-CANADIAN	28.85%	29.57%	30.33%
.....			
TOTAL	100.00%	100.00%	100.00%

C) Hypothesis 3

Hypothesis 3 compared the friends' morphological age assessments to see if the subjects assess their friends differently. In a comparison of the assessments among groups:

1) CVS and ECS are significantly different from each other while CCS are not different from either CVS or ECS, as shown in Table 16.

2) CVS assess the greatest percentage of their friends as older, ECS assess the greatest percentage of their friends as no different, and CCS assess the greatest percentage of their friends as older, as shown in Table 17.

Divergence, in assessments among the three ethnic groups, is likely due to either differences in perception and/or differences in ethnic composition of friendship groups. This latter possibility is explored in Hypothesis 4. There is a difference between CVS and ECS possibly due to differences in both their ethnic identities and friendship groups. CCS are perceptually similar to both of the other groups. This is possibly due to their ethnic similarities with CVS, on one hand, and their group association with ECS, on the other hand. These interpretations are discussed in the next chapter with reference to the contention that

differences in reference group associations imply differences in perceptions. There is little evidence, however, to suggest morphological age assessments affect the composition of friendship groups.

TABLE 17

OBSERVED FREQUENCIES AND CHI-SQUARED STATISTICS FOR
HYPOTHESIS 3: ETHNIC GROUP OF SUBJECTS AND THEIR
MORPHOLOGICAL AGE ASSESSMENTS OF THEIR FRIENDS.

(observed frequencies in friends per assessment)

ASSESSMENT OF FRIENDS	ETHNIC GROUP OF SUBJECTS			
	CVS	ECS	CCS	TOTAL
YOUNGER	25	17	7	49
OLDER	32	19	18	69
NO DIFF.	17	29	17	63
TOTAL	74	65	42	181
.....				
CHI SQUARED = 10.21, DEGREES OF FREEDOM = 4, ALPHA (at 0.05 sig. level) = 9.49, CHI-SQUARED IS GREATER THAN ALPHA, REJECT NULL HYPOTHESIS.				

TOTAL	CVS	ECS	*	49
.....				
CHI-SQUARED = 7.49, DEGREES OF FREEDOM = 2, ALPHA (at 0.05 sig. level) = 5.99, CHI-SQUARED IS GREATER THAN ALPHA, REJECT NULL HYPOTHESIS.				

TOTAL	CVS	*	CCS	41
.....				
CHI-SQUARED = 5.65, DEGREES OF FREEDOM = 2, ALPHA (at 0.05 sig. level) = 5.99, CHI-SQUARED IS LESS THAN ALPHA, ACCEPT NULL HYPOTHESIS.				

TOTAL	*	ECS	CCS	38
.....				
CHI-SQUARED = 2.49, DEGREES OF FREEDOM = 2, ALPHA (at 0.05 sig. level) = 5.99, CHI-SQUARED IS LESS THAN ALPHA, ACCEPT NULL HYPOTHESIS				

	CVS	ECS	CCS	TOTAL
other*	4	4	3	11
total*	78	69	45	192
.....				
* ethnic groups not used in calculations.				

TABLE 18

PERCENTAGES FOR HYPOTHESIS 3: MORPHOLOGICAL AGE ASSESSMENTS
OF FRIENDS BY CVS, ECS, AND CCS.

(observed frequencies in percentages friends for column
totals of ethnic groups)

ASSESSMENTS OF FRIENDS	ETHNIC GROUP OF SUBJECT		
	CVS	ECS	CCS
YOUNGER	33.78%	36.15%	16.67%
OLDER	43.24%	29.23%	42.86%
NO DIFF.	22.97%	44.62%	40.48%
..... TOTAL	99.99%	100.00%	100.01%
.....	* other ethnic groups not included.		

D) Hypothesis 4

This final hypothesis examined whether Chinese friends are assessed differently than non-Chinese friends, to determine if the ethnic identity of friends affects how they are assessed.

To summarize the data:

- 1) there is no significant difference in the assessments of the three groups of friends, as shown in Table 18.
- 2) the greatest difference in assessments is between friends who are CVS and ECS, whereas the greatest similarity is between friends who are ECS and CCS.
- 3) Cell frequency percentages, shown in Table 19, indicate that the greatest percentage of friends who are CVS are assessed as older, those who are ECS are assessed as no different, and those who are CCS are assessed as either older or no different.

It must be remembered, however, that these results support the null hypothesis that there is no significant difference among or between the ethnic groups of friends. The results suggest that there is no tendency for friends who are either CVS or CCS to be perceived as less mature than ECS. Furthermore, the ethnic identity of the friends has no effect on how they are assessed. This suggests that when

one compares perceptions the important consideration is the differences between subjects (who are perceiving), not the differences between the friends (who are perceived).

TABLE 19

OBSERVED FREQUENCIES AND CHI-SQUARED STATISTICS FOR
HYPOTHESIS 4: ETHNIC GROUP OF FRIENDS AND MORPHOLOGICAL AGE
ASSESSMENTS OF THOSE FRIENDS.

(observed frequencies in ethnic group of friends per
assessment)

ASSESSMENT OF FRIENDS	ETHNIC GROUP OF SUBJECTS			
	CVS	ECS	CCS	TOTAL
YOUNGER	22	23	4	49
OLDER	25	37	7	69
NO DIFF.	18	38	7	63
TOTAL	65	98	18	181
.....				
CHI SQUARED = 3.19, DEGREES OF FREEDOM = 4, ALPHA (at 0.05 sig. level) = 9.49, CHI-SQUARED IS LESS THAN ALPHA, ACCEPT NULL HYPOTHESIS.				

TOTAL	CVS	ECS	*	163
.....				
CHI-SQUARED = 2.93, DEGREES OF FREEDOM = 2, ALPHA (at 0.05 sig. level) = 5.99, CHI-SQUARED IS LESS THAN ALPHA, ACCEPT NULL HYPOTHESIS.				

TOTAL	CVS	*	CCS	83
.....				
CHI-SQUARED = 1.20, DEGREES OF FREEDOM = 2, ALPHA (at 0.05 sig. level) = 5.99, CHI-SQUARED IS LESS THAN ALPHA, ACCEPT NULL HYPOTHESIS.				

TOTAL	*	ECS	CCS	116
.....				
CHI-SQUARED = 0.01, DEGREES OF FREEDOM = 2, ALPHA (at 0.05 sig. level) = 5.99, CHI-SQUARED IS LESS THAN ALPHA, ACCEPT NULL HYPOTHESIS				

* ethnic groups not used in calculations.				

TABLE 20

PERCENTAGES FOR HYPOTHESIS 4: MORPHOLOGICAL AGE ASSESSMENTS
OF FRIENDS BY ETHNIC GROUP OF FRIENDS.

(observed frequencies in percentages of assessments for
column totals of ethnic groups)

ASSESSMENTS OF FRIENDS	ETHNIC GROUP OF FRIENDS		
	CVS	ECS	CCS
YOUNGER	33.85%	23.47%	22.22%
OLDER	38.46%	37.76%	38.89%
NO DIFF.	27.69%	38.78%	38.89%
TOTAL	100.00%	100.01%	100.00%

IV. SUMMARY AND DISCUSSION

In this section, I review the argument and data presented thus far. This material is discussed and interpreted in light of the four hypotheses. Numerous quotations, made by the subjects during the course of the interviews, are included to illustrate the discussion.

Yinger (1981:253) emphasizes that group formation involves recognition of differences and similarities in others. Barth (1969:117) indicates that members of an ethnic group share perceptions upon which the potential for a great variety of social interaction can take place, whereas non-members are limited in their shared perceptions and are likewise restricted in their potential variety of interaction.

Shibutani (1963:97) defines a reference group as some identifiable group to which the actor is related in some manner, and with which the actor shares norms and values. He uses the concept of reference group to summarize the differential associations and loyalties which organize an individual's perception. Reference groups are groups which serve as reference points, groups to which individuals aspire, and groups whose perspectives are assumed.

In this examination, reference groups include ethnic and friendship groups. A pattern of friendship from within the ethnic group is a measure of ethnic homogeneity and a pattern of friendship from outside of the ethnic group is a measure of ethnic heterogeneity. Since the friendship groups of both CVS and ECS are largely derived from their own ethnic groups, they are characterized as having patterns of friendship which are ethnically homogeneous.

The pattern of friendships for CVS is perhaps best accounted for by identification, association, and loyalty with CVS as a group. As Kuo and Lin (1977) explain, participation in Chinese organizations, communication in Chinese, and frequent interaction with Chinese friends, are related to the preservation of Chinese values. Although CVS probably have frequent contact with ECS through their daily activities at school, the potential for this contact resulting in the formation of friendships is greatly restricted by language (Smith 1955:233; Bagu 1962:44; Selltitz et. al. 1963:79), cultural and social differences (Fong 1973:124; Sue and Austin 1973:114), and individual coping and adjustment strategies (Klineberg 1980). Chinese friendship patterns are exemplified in the following quotation of a CVS:

Most Chinese don't interact, they tend to stay with the same group, they tend to be shy because they can't communicate. They feel inferior because of their English deficiency. Traditionally Chinese are not out-going. It is easier to talk to someone with the same

language, people of the same age and culture.

The majority of ECS social interaction is conducted in English, while it is often a second language for the CVS (with the possible exception of some Singaporean and Malaysian CVS from English speaking homes). This clearly places the CVS at a disadvantage. The CVS may be frustrated by his/her inability to competently express him/herself and to adequately interpret other ECS peers.

As Berger and Luckman (1966:22) explain, language is an important sign system which enables the individual to comprehend social realities. Language coordinates an individual's life in society by forming content and meaning from objects and past experiences. Through language the individual makes sense of and relates to his/her social world.

Since language is the centre for all social interaction, CVS with English language problems are stripped of their primary means of interaction with ECS (Smalley 1963). In their research on the adjustment of foreign nationals in the United States, Deutsch and Won (1963) view adjustment as a subjective reaction to the social-cultural environment. They show a positive correlation between language proficiency and levels of adjustment. The authors emphasize that the ability to communicate is an important factor in social interaction. Also, Wong (1979), in her typology for CVS and CCS groups at the University of

Toronto, identifies language as a major factor affecting group interaction and identification. The students in her study tend to associate with groups of similar language and dialect.

As these studies suggest, the effects of language on social interaction are self perpetuating. Those CVS who are confident enough in their level of English to interact with ECS, in turn develop a greater competence. Whereas, those students who are not confident tend to interact only with other CVS and, in turn, do not develop a competence.

Williams (1970:384) asserts that;

Speech is a powerful means of reminding ourselves and others of social and ethnic boundaries, and is thus a part of the process of social maintenance and change.

CVS are distanced from ECS in their potential for shared perceptions stemming from their differences in background, exposure, and experience. Both are restricted in their abilities to adequately express or interpret those differences and to reach a common ground for understanding.

Language and cultural differences are no doubt factors which affect friendship patterns. Whereas CVS have varying degrees of proficiency in English and various amounts of exposure to the cultural and social aspects of ECS, the inverse is probably not the case. Most ECS have no proficiency in Chinese and would have only a limited familiarity with, or exposure to, the cultural and social aspects of CVS. Berger and Luckmann (1976:115) explain that

face-to-face interaction will be patterned by reciprocal typification schemes and as more information is gathered, these schemes are modified. Kinloch and Borders (1972) note that among Japanese and Chinese elementary school children in Hawaii a high degree of stereotyping is associated with a higher degree of social distancing. Hence, the limited degree of contact through friendships between CVS and ECS is associated with typification schemes. A ECS typifies group interaction with his impression of CVS groups boundaries:

They [CVS] tend to stay within their own group because of common culture, ideals, behaviour, and morals, I don't know any Chinese students.

As Barth (1969:14) emphasizes, the fundamental aspect of ethnic categories depends on boundaries and interaction across those boundaries:

When described as an ascriptive and exclusive group, the nature of continuity of ethnic units is clear: it depends on the maintenance of a boundary.

Wong (1979:68) notes that CVS have contributed to this typification scheme of CVS solidarity. Their focus is towards academic achievement and their chief concern is to return home with honours. Socialization is a secondary consideration and usually done through the CVS social environment. At the University of Victoria the Chinese Student Association and the Chinese Christian Fellowship offer CVS (and CCS) an opportunity to socialize in a "Chinese" environment.

Kuo and Lin (1977) report that the greater the amount

of ethnically homogeneous interaction the greater the reinforcement of Chinese cultural values. These organizations serve as a refuge away from the larger ECS environment. Wong (1979:68) says they provide a support system similar to the mutual-aid societies or Tongs organized by Chinese laborers. The CVS sojourn may be a very frightening and lonely experience. These organizations help to fulfill the need for mutual understanding and social interaction. As with many foreign students (Becker 1971:473), CVS tend to seek out and surround themselves with other compatriots and fellow nationals.

From a ECS point of view the CVS are typified as a ubiquitous group. Fong (1965), however, cautions that CVS represent a number of groups and subgroups depending on geographical origin, dialect subgroup and other less conspicuous features.

The demographic distribution of ethnic groups is an important consideration. According to the University of Victoria Department of Institutional Analysis there were 34 times as many Canadian students as visa students enrolled at the University in 1985-86. Although ethnic identity can not be determined from this data it is safe to assume that ECS greatly outnumber CVS or CCS. It is also likely that the friendship patterns of ECS reflect a limited amount of contact with the other two groups. All other things being equal, the chance of a student meeting and establishing a

friendship with an ECS is greater than the chance of meeting and establishing a friendship with either a CVS or a CCS.

This is illustrated by a statement from an ECS:

I don't have any friends who are Chinese or Chinese-Canadians. I haven't met any, not in any of my classes.

Demographic and cultural consideration combine to affect group interaction. An ECS explains:

Most of the Chinese visa and Chinese-Canadians I associate with are through my area of study. There are a lot of Chinese in Computer Science, Math, Engineering; for social and cultural reasons. They always seem to do well in school because of family background or lack of social interaction.

Among the Chinese, according to Trimble (1982), there is a tendency to be less socially extroverted, less individualistic, and more conventional. Their general vocational interests are in business related and applied science occupations. These psycho-social characteristics are related to their family background and developmental experiences and are noted for both CVS and CCS. The traditional Chinese value of "having a good job so that they can provide their family with a comfortable standard of living" is consistent with these vocational aspirations (Young 1971:232). Pang et al. (1985) suggest that possible physical insecurities lead Japanese-Americans and other visible minorities away from careers requiring high visibility, such as politics, law, performing arts, business management, and journalism, and into less visible careers,

such as mathematics, laboratory sciences, and computer science. This suggestion, however, is highly speculative since Pang et al. do not present any supporting evidence and since it is common to see, for example, television journalists who are members visible minority groups.

In this research CCS show a pattern of friendship from outside their own ethnic group and a close association with the ECS group. Fong (1965-66) indicates that as the contact between Chinese people and general Chinese society decreases and contact with non-Chinese society increases there is a concurrent increase in their assimilation orientation and their internalization of non-Chinese perceptual norms. Although CCS belong to an ethnic Chinese group their identification as Canadian and easily available contact with ECS society accounts for their friendship patterns. Their exposure to, and participation with, the majority Euro-Canadian society exceeds the perimeters of their "university experience" and may include interaction with non-Chinese at home, work, and play. In short, CCS must participate in many ways with other Canadians, the majority of whom are non-Chinese.

Shibutani (1963:104) and Fong (1973:119) note an ambiguity in orientation for minority groups where some remain loyal to the parental culture while others seek desperately to become assimilated into the dominant group. The following quotation of a first generation CCS alludes to this former

perspective:

I look Chinese, therefore I feel Chinese. I think because I was born in Hong Kong, I still think in Chinese.

The latter perspective is illustrated in a quotation of a third generation CCS:

I would say I'm as English-Canadian as everyone else. There is nothing I do differently or say differently, that is any different from my English-Canadian friends.

Chan (1983:193), in his historical review of Chinese in the New World, explains that:

Many Chinese who experienced widespread alienation placed a premium on seeming like the majority. Assimilation--in dress, manners, lifestyle and work ethic--was more than a casual goal of many Chinese-Canadians. Many turned their backs on the Asian culture, which was in reality as foreign to them as to an Italian, Jew, or Briton living in Canada.

Lewin (1948:193) explains that there is a tendency to accept the values of the more privileged group and to become excessively sensitive to everything that belongs to the underprivileged group. Furthermore, Ashworth (1982) states:

In a deep desire to be accepted as a Canadian, some children refuse to speak their home language and are ashamed of their parents when they speak their own tongue in public. This rejection by the child of the first language and culture can spell the beginnings of a serious identity crisis (p.79).

According to Chan (1983:189), CCS are struggling to discover a Chinese-Canadian identity which is neither Chinese nor Canadian:

Much Asian-Canadian literature is concerned with the discovery that Chinese-Canadians have

a cultural identity that is neither Chinese nor Canadian, but Chinese-Canadian.

This struggle for identity is illustrated by a statement from a second generation CCS in which this student identifies herself as a Chinese-Canadian who is an amalgamation of Chinese and Canadian:

My parents lecture me that I'm Chinese and not Canadian. I always think that I'm Chinese-Canadian.

It is important to stress that ambiguous identifications and associations are characteristics of transitional groups. This ambiguity of identity is outlined by Nagata (1979:38-39, 1974:346) and involves opportunistic strategies of affiliations and associations with other groups. While these groups are often not afforded the same degree of status associated with the dominant groups, they may achieve a degree of mobility through their differential associations and loyalties with various reference groups. The following statement by a CCS illustrates this marginal status:

. . . a lot of Caucasians or Canadians think all Chinese are the same, all speak Chinese and all eat Chinese food. . . They [CVS] stare at my brother and I. It makes you wonder if they are trying to figure out where you are from.

Chan (1983:189) suggests that Chinese-Canadians continue to be regarded as foreigners and sojourners by the dominant Euro-Canadian group. The newer immigrants from Asia snub these "Asian Whites" for their abandonment of things Chinese (Fong 1965:272). With CVS, CCS share a common morphology, ancestry, and various aspects of culture and perception; and

also with ECS, they share a common national identity, friendship patterns, language, and various aspects of culture and perception. Thus CCS identity involves the acceptance and rejection of both Chinese and Euro-Canadian characteristics.

Yinger's (1981:249) theory for the processes of ethnic group interaction encapsulates the minimal beginnings of interaction to the complete fusion of groups. Assimilation is divided into four interdependent subprocesses: amalgamation (biological), identification (psychological), acculturation (cultural), and integration (structural).

The ethnic composition of friendship groups lies within the sub-process of structural assimilation, which refers specifically to the dispersion of the members of a group throughout the group structures of the society. For instance, the CCS friendship groups is largely composed of ECS which shows that they associate themselves structurally with the dominate ECS group. They also show an ambiguous psychological and cultural association with Chinese and non-Chinese society. Examples for this are indicated by the broad range of CCS terms of identification as Chinese, Chinese-Canadian, Canadian-Chinese, or Canadian, emphasizing either a Chinese, a non-Chinese, or an amalgamated identity.

Clearly the extent of the assimilation process is not fully examined in this study. The interdependent nature of these sub-processes makes it difficult to isolate any single

variable. Although Yinger suggests a range of issues to be considered, the researcher is faced with a methodological problem in the further pursuit of an empirical application of this model. Within the limitations of this study the heterogeneous nature of CCS reference groups allows us to formulate a range of strategy options available to the CCS. The behavioral strategies of the Chinese sojourner differ from the immigrants in their orientation towards either China or the Chinese community. As far as CCS are concerned, they are faced with two options: 1) a strategy of assimilation which is either directed towards a Chinese or a non-Chinese group, or 2) a strategy of ambiguity which maintains references with both groups and/or possibly develops into a semi-autonomous identification as a distinct group.

These strategies, it appears, are closely related to the way in which the individual CCS identifies him/herself. In this study, CCS range from identification as: 1) racially and culturally Chinese, 2) non-Chinese and any Chinese qualities are literally only "skin deep," and 3) an amalgamation which is both Chinese and non-Chinese. The first two strategies involve a process of assimilation, whereas the third strategy entails an ambiguous reference with both Chinese and non-Chinese groups. CCS at the University of Victoria are best characterized as having an identity that is Chinese in perception and non-Chinese in

orientation.

We have looked at the group dynamics of CVS, CCS and ECS, focusing on ethnic identity and friendship composition. At this point our discussion is expanded to include morphological age assessment in regard to its possible effects on group interaction.

Molner (1983:5) recognizes that perceived morphological differences between groups are often socially or culturally determined. A review of the biological maturation process demonstrates that any differences in morphological age assessments between the three ethnic groups of university students are perceived differences and not due to differences in maturation rates.

In the second hypothesis of this study, I examined perceived difference among the three ethnic groups in their morphological age assessment of Chinese students and Euro-Canadian students. From these results it is clear that CVS and CCS share the opinion that Chinese students are physically less mature. Likely, their common identification with a Chinese ancestry and subsequently their shared morphological perspective as Chinese have led to this shared perception. Living in a society in which the majority of people are visibly non-Chinese no doubt prompts the CVS and CCS to make comparisons and form opinions concerning their own morphological differences.

ECS, on the other hand, are varied in their opinions

regarding the maturity of Chinese students. Since the majority of students at university are ECS, comparisons of Chinese and non-Chinese maturity levels may seem relatively unimportant. Comparisons of this type do not hold the same implications for ECS participating in a predominately ECS environment as they might for CVS and CCS. The difference in responses between ECS and the other two ethnic groups is interesting when considered in terms of the friendship patterns. ECS demonstrate the most limited contact through friendships with either of the other two ethnic groups. The effect of a limited degree of contact on making such assessments was best illustrated in the following comment by a ECS:

I am not familiar with judging (morphological age assessment) people not of white skin.

Another ECS states:

I find it hard to discriminate Chinese age.

However, similar impressions are also expressed by CVS:

I cannot distinguish different people of Europe.... They all look alike to me, except Portuguese. I can hardly guess the age of Western people.

This does not suggest, however, that an increase in social interaction between the ethnic groups would lead to a corresponding increase in the accuracy of assessments of one another. Rather, it is interpreted as suggesting that an increase in social interaction through friendship (or other frames of reference) would lead to an increase in shared

perception.

The distinction made by Bennett (1979:435) between maturity and chronological age suggests that they are poor indicators of one another. The indicators of morphological age, while based on the maturation process, are highly subjective and subject to cultural modification. For example, a male CCS states:

Chinese from Asia appear to be younger looking than those Chinese Canadians here, their hair-styles, mostly.

A female CCS also suggests cultural differences associated with age:

Chinese girls usually don't wear make-up because they feel no desire to look older.

Staffieri (1972:127) suggests a Western social desirability for adolescent females to look younger and adolescent males to look older, but a female CCS contradicts him and gives her reason why female Canadians might want to appear older:

I make friends easier with people who are older than me, because they think my appearance is mature.

A quotation of a female ECS further illustrates this value:

I usually associate with people of my own age or older . . . I make an assumption of mental maturity based on my impression of how old somebody is physically (morphological age assessment).

This leads to questions concerning the effects of morphological age assessments on friendship composition. In the final two hypotheses, morphological age assessments

between the three ethnic groups in the social context of friendship patterns, are examined. The subjects were asked to assess each of their friends' maturity relative to themselves.

Results of this examination indicate a significant difference occurred between CVS and ECS; whereas no significant difference was found between CCS and either of the other two groups. In this aspect of group perception there is an expected difference between CVS and ECS, due to the fact that both differ in ethnic identity and friendship group. It appears that CCS maintain an ambiguous perceptual relationship with the other groups. This ambiguity is also expected due to the fact that CCS are ethnically heterogeneous in their group associations. These results are consistent with the contention that differences in group associations imply differences in perception. There is little evidence, however, to suggest that morphological age assessments affect the composition of friendship groups. A statement by a male CVS indicates that this is not a primary consideration in friendship formation:

I think when people interact with people they don't concern too much about the age because racial is more important.

This leads next to the review of Hypothesis 4, which compared the friends who are CVS, CCS, and ECS, to see if they are assessed differently. It is concluded from the results that the ethnic identity of the friends does not

affect assessment. Thus, the differences in perception (noted in Hypothesis 2, condition 1 and Hypothesis 3) are due to ethnic differences among the subjects and not due to the ethnic differences among the friends.

While morphological age assessment does not appear to be a factor in the friendship patterns between the three ethnic groups, perception of maturity between groups may still influence social interaction. Lerner and Hultsch (1983) suggest that there is a social advantage for males in having an advanced morphological age. Marsella et al. (1981:368) contend that:

In both the Japanese-American and Chinese-American cultures male identities are strongly tied to masculinity norms. Dissatisfaction with 'physique' is enhanced by the fact that Caucasian males are generally a few inches taller, weigh more, and have larger bone structures.

Two male CVS explain how their perceptions of Chinese morphological differences may affect their social interaction in sports:

Chinese descent people, because of their smaller physique, generally would, I think, be less boisterous and aggressive, especially in physical contact sports. They would be at a disadvantage when it comes to contact sports. When it comes to non-contact sports, for example badminton and table tennis, I think there wouldn't be any difference.

And the second student states:

The larger stature of the Canadian may be threatening to the Asian Chinese . . . purely size may affect contact, based on stereotypes.

The value placed in North American society on contact

sports emphasizing size, such as football and hockey, and sports which emphasize stature, such as basketball, combined with a possible CVS perception about their difference in size (apart from other considerations of differing skills, experiences, and cultural values in these sports) may inhibit the CVS from participation in these sports and ultimately limit their forum for male social interaction with ECS. Steward et al. (1982:105) lend support to this contention by stating that:

The heavy emphasis placed on outward physical attributes may be more a characteristic of American socialization in comparison to the value other countries hold towards physical appearance.

In other areas of social interaction, however, the individual's perception of his/her younger morphological age may be seen as an advantage (Staffieri 1972:126). A female CVS suggests a social advantage in looking younger:

I look younger than most Canadians. . . .
Sometimes I get treated as younger by my students and so do my peers. It helps me to look younger. When I ask for help people give it to me. They feel that I'm so helpless.

Other social advantages reported by CVS include: youth fare on buses and for movies, no sales tax on clothing for people under 16 years of age, and a general impression of youthfulness and innocence. The disadvantages of looking younger reported by CVS include: lack of respect in school and in public, problems going into restricted clubs and movies, and a general impression of immaturity. This CVS

perception of youthfulness and resulting behaviours might be faced by any individual, although CCS and ECS did not report this perspective.

Tanner (1977:323) indicates that morphological age has considerable repercussions on an individual's social behaviour. This study has considered perceptions of morphological age between ethnic groups. Although there is little evidence to suggest that morphological age assessment is a factor influencing friendship patterns within or between the ethnic groups, the evidence presented suggests that a perception of maturity may influence social behaviour. CVS perception of their younger morphological age has repercussions for their social behaviour in a Western university setting.

V. CONCLUSION

A student's experience at university entails more than long lectures and hard wooden chairs, endless assignments and cold cups of coffee, oversized books and overdue library fines. A university provides a setting for learning through social interaction. The Canadian student has the opportunity to develop friendship with others from a far broader spectrum than he/she could possibly find in his/her home community. For the visa student, university entails the opportunity to return home from his/her sojourn with an intimate and personal understanding of Canada and Canadians.

This study, however, indicates a scenario that is not consistent with this idyllic picture of university. Social interaction for both CVS and ECS does not often extend beyond the ethnic boundaries of the group. Cultural differences, language, values, background, experience, etc. are responsible for this.

Assimilation with regard to social interaction between CVS and ECS is not a major issue. The majority of CVS are sojourners and return home, thus ending any process of assimilation. A friendship between a CVS and ECS entails a

brief and restricted interaction between individuals representing different ethnic backgrounds.

In discussing CCS, however, it is difficult not to address the question of assimilation. For the CCS, identification through friendship is implicit. Friendship with another CVS or CCS implies a recognition and identification of the CCS (by him/herself and by others) as ethnically Chinese. On the other hand, friendship with an ECS may be construed as suggesting the CCS is oriented towards assimilation with the non-Chinese community. Pressure to make a choice for association between one or the other comes from both Chinese and non-Chinese sources---the individual, parents, cohorts, schoolmates, etc. Many CCS at the University of Victoria opt for an association through friendship with non-Chinese, regardless of the implications.

With regards to social interaction, CVS and ECS comprise semi-autonomous groups. Perception of one's own group in relation to others, then, becomes based on stereotypes and typifications. In effect this study examines the occurrence of, and consequences for, the perception that Chinese are physically less mature than non-Chinese. It is found that this stereotype is most prevalent among CVS and CCS. Rather than directly influencing friendship group composition, this perception subtly hampers and restricts the opportunities for cross-group interaction

to take place. This is noted in contact sports, but also affects other ways in which people behave towards each other in general.

Clearly, the perception of Chinese as physically less mature is not a major factor contributing to the establishment or maintenance of group boundaries. But in examining this rather obscure factor we are able to outline CVS friendship group composition in contrast with CCS and ECS group composition and observe ways in which CVS perception is shared by CCS.

This research involving reference groups has included an examination of: the interaction between ethnic groups, the nature and degree of ethnically heterogeneous and homogeneous friendship groups, and the relationship between perception and group associations. Specific factors that contribute to the total construct of inter-group perception need further study. As with this study, the use of photographs allows the researcher to present the subjects with concrete perceptual images. The body, body parts, or specific aspects of the body are especially powerful perceptual indicators for cross-cultural comparisons of self-image, image of others, and other cultural projections. This study might be duplicated in universities with larger CVS populations. Data could then be sorted into subgroups according to sex and nationality, for instance CVS from Hong Kong, from Taiwan, from Singapore and Malaysia. Research

concerning CCS should, likewise, take note of ethnic, national, and generational subgroupings. The possibilities for cross-cultural research into morphological perception and social interaction are endless and must not stop with simple recognition of visible and invisible ethnic groups.

The growth of anthropology as a science has brought about increasing specialization. This development has led to an expansion of anthropology into new and previously unconsidered areas of exploration. Expansion into new areas of study, however, has coincided with a fragmentation of the discipline as a whole, in which the traditional four sub-disciplines of anthropology may often seem unrelated. If anthropology is to benefit from this trend of specialization, efforts must be made to interact across disciplinary boundaries.

This study is an attempt to integrate the sub-discipline of cultural anthropology with physical anthropology. Attempts such as this enable anthropologists to expand their area of concentration and at the same time to benefit from other specialization within and outside their specific disciplines.

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APPENDIX 1
QUESTIONNAIRE

PART 1

My name is Mark Campbell. I am a second year graduate student in Anthropology at the University of Victoria. This questionnaire is a part of my masters thesis. I am interested in ethnic identity and age judgement of Chinese and Canadian students at the University of Victoria.

If you decide to participate in this study any and all of the information will remain confidential. No names or information that would otherwise violate this confidentiality will be published or otherwise revealed. If you choose, you may withdraw from this study at any time. In this event your questionnaire and/or any information will be destroyed. Thank you for your consideration.

I give my permission:

signature of student

date

to Mark Campbell to use the information in this
questionnaire in his research.

PART 2

1) You will be given 20 photographs. Please arrange all 20 photographs in relative age order from the person who looks the youngest to the person who looks the oldest.

RANK (youngest)	1	2	3	4	5	6	7	8	9	10													
PHOTOGRAPH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
RANK	11	12	13	14	15	16	17	18	19	20	(oldest)												
PHOTOGRAPH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

PART 3

Please complete the following:

NAME _____

AGE _____ SEX _____ SCHOOL LEVEL _____

NATIONALITY _____

BIRTHPLACE _____

MOTHER TONGUE _____

ETHNIC IDENTITY* _____

*for example:

Chinese from Hong Kong, Chinese from Singapore or Malaysia,
 Chinese from China, Chinese from other,
 English Canadian, French Canadian, Italian Canadian,
 Chinese Canadian, other Canadian.

2) Please complete the following for each of your three closest friends at the University of Victoria, who are the same sex as you.

Friends	1	2	3
<u>NAMES</u>	1	2	3
<u>AGES</u>	1	2	3
<u>SCHOOL LEVELS</u>	1	2	3
<u>NATIONALITIES</u>	1	2	3
<u>BIRTHPLACES</u>	1	2	3
<u>MOTHER TONGUES</u>	1	2	3
<u>ETHNIC IDENTITIES*</u>	1	2	3

(* see previous suggestions on ethnic identity)

3) Compared with myself, I look physically:

1st. friend a) younger, b) older, c) the same age.
 2nd. friend a) younger, b) older, c) the same age.
 3rd. friend a) younger, b) older, c) the same age.

(circle your response)

4) Based on physical appearance Chinese students appear to be : a) younger, b) older, c) no different, than Euro-Canadian students of the same age.

PART 4

5) Please make any comments, give observations, or make any suggestions.

thank you for your assistance.

VITA

Surname: CAMPBELL Given Names: MARK DAVID

Place of Birth: Kingston, Ontario

Date of Birth: November 27 1959

Educational Institutions Attended with dates of entering and
leaving:

Trent University, Ontario 1979 to 1982

University of Victoria, B.C. 1983 to 1987

Degrees Awarded with Dates and Names of Institutions:

B.A. (Honors) 1982 Trent University

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Title of Thesis

Social Interaction of Chinese Visa Students: Reference Groups and Morphological Age Assessments

Author


MARK DAVID CAMPBELL

APRIL 23 1987