

Attitudinal Differences Between High School Students and Their Parents in U. S. A.: A Case Study of Generation Gap

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CHAPTER I

INTRODUCTION

The question of generation discrepancies is a social issue as old as mankind's earliest writings and as contemporary as current journal articles. In the literature there are a large number of studies on the phenomenon of societal changes and their influences on youth attitudes, adjustments and behavioral patterns. Various theories and recommendations have been provided to account for the so-called generation gap problem. However the difficulties of inter-generational communications and adjustments are still persistent in the contemporary society. Despite the fact that other areas of teaching and educational facilities and program have effectively achieved to a very successful level during the past decade, adjustment problems among youth continue to be one of the major and institutional tasks. Therefore, in order to develop a more constructive and effective program, re-evaluation of the whole issue seems necessary. The present research is thus an intensive case study of generation gaps within a relatively homogeneous subject population. While Osgood's representational theory of human learning and cognition will be used as the basic theoretical framework, Tzeng's¹ research strategies will be used as the major measurement guide.

In this chapter, the literature on the contemporary issues of so-called generation gaps between school students and their parents will first be reviewed with the focuses of three broad areas: (i) historical prospective of the issue of generation gaps, (ii) areas of difficulties and adjustment problems reported in this changing society, and (iii) sources and dynamics of generation gaps. After evaluation of general theories and methods used in most studies of generation gaps, Osgood's² representation mediation theory and his semantic differential measurement technique will then be summarized for the development of the present research designs and methods.

Themes and Issues in Generational Studies

The history of generational studies can be traced through three progressive stages as follows (Bengtson et al.³):

(1) The Classical Perspective

This is the initial development of competing formulations focusing on the

impact of youth groups on social structure by social historians and modern sociologists. Social theorists such as August Comte⁴ and John Stuart Mill⁵ have utilized the concept of "generation" in their efforts to explain historical changes and the rise of particular political movements. More recently, several developments on generations have been made:

(A) Historical consciousness of age-groups. Mannheim⁶ developed the notion of historical consciousness and social organization as manifest in emerging generations. For him the concept of generations represented a unique type of social location — one aspect of differentiation in a society — based on the dynamic interplay of demographic facts which inevitably create an age cohort, and social meaning (the consciousness of that cohort's peculiar location in history, arising from decisive political or social events). The concept of generation thus serves as the crucial link between time and social structure and is important in understanding the progress of historical events and the course of social change.

(B) Structural-functional explanations of youth culture. Parsons⁷ and Eisenstadt⁸ attempted to assess more precisely how generations operate as dimensions of social structure, that is, how age groups reflect strain and imbalance in the social order and, by implication, how differentiations within age groups occur. According to Eisenstadt, the dynamics of generational phenomena can be traced to the interplay between technological development and the division of labor in complex societies. From the functionalist perspective, some degree of generational conflict inevitably arises from differences in stages of personality development between age groups and from contrasts in social positions between younger and older members of society. Such differences are not necessarily reflective of permanent value differences or discontinuity between generations, nor are they symptomatic of social disorganization. Rather, generational contrasts reflect the attempt of youth to adapt and to prepare for their entrance into adult roles as they succeed the parent generation (Parsons & Platt⁹).

(C) Assessments of generational conflict and transmission. While the historical-consciousness and structural-functional perspectives on the problem of generations are primarily macrosocietal conceptualization, the third perspective is more explicitly a macrosocietal analysis of generations — analysis of generational dynamics as manifest in the phenomenon of parent-youth conflict. Davis¹⁰ suggests that some generational conflict is unavoidable, arising as a function of developmental contrasts in individuals who are at different stages of socialization and who are born into different historical periods. Other scholars such as Berger,

¹¹ Coleman¹² and Cain¹³ have emphasized social and psychological research upon youth and inter-age contrasts as important dimensions of social organization. In varying ways, each attempted to use theoretical foundations to explain the unique situation, role, and character of age groups in the post-World War II era.

In summary, the classical period of generational analysis in modern social science was marked by the development of competing formulations regarding the impact of youth groups on social structures and changes.

(2) Studies of the Youth Movement

This stage refers to the period after the sudden appearance of student movements in the 1960s. Among students of social issues, social movements, and social change the protest movement caused a revival of interest in the concept of generations. Many social scientists carried out research in an attempt to identify the sources of student activism (Flacks,¹⁴ Altbach and Laufer,¹⁵ Lipset and Ladd¹⁶). About the same time, many sociologists (such as Roszak,¹⁷ Simmons and Winograd,¹⁸ Suchman¹⁹) had focused on the development of the counterculture with its exotic innovations and life-styles in order to chart the course of social change as the many elements of the counterculture. From this wave of generational research, three stereotypic perspectives were readily discernable (Bengtson²⁰). The first focused on generational discontinuity which has been called a great gap orientation. During the 1960s, traditional socialization processes had become dysfunctional in an age of rapid social change, often exacerbated by the apparent hypocrisy of the parental generation. The result was discontinuities in basic core value between youth and their elders (Friedenberg,^{21,22} Mead,²³ Laufer and Light²⁴). This orientation suggests basic, and in some sense, irreconcilable differences between age groups in American society, culminating in rapid cultural transformation. Slater²⁵ suggested we had already become a nation of two cultures defined mainly by age distinctions.

The second group of researchers, including such scientists as Douvan and Adelson,²⁶ Campbell,²⁷ Walsh,²⁸ Yankelovich,²⁹ indicated that the reported generational differences were really an illusion; that the social events of the 1960s were not based in value discontinuities between the generations, but rather represented social change precipitated by other conditions. As youth matures into adulthood, one may anticipate a reaffirmation of the basic continuity that exists between the generations in the structure of social institutions.

The third thesis elucidated that the nature of the student activism of the 1960s may be termed selective continuity (Benedict,³⁰ Hill,^{31,32} Thomas³³). That is, despite the apparent discontinuity between protesting youth and their parents, there was a great deal of familiar similarity in values and opinions between generations. Therefore, the youth-based social movement of the 1960s was not so much a function of generational discontinuity, as a reflection of the developmental concerns of youth, but rather accepting many of the orientations of their parents in response to new events, they modify others and abandon a few.

The three positions just reviewed — great gap, nothing really new, and selective continuity — reflect a debate that continues to characterize analyses concerning innovations of the unprecedented youth movement. Even though the revival of interest in generational analysis in the 1960s produced numerous studies and a great deal of public awareness, no clear answer to social-psychological questions regarding the causes and our understanding of generational dynamics has been provided.

(3) Development and Refinement of Generational Theory

The third stage of generational analysis is currently being consolidated in sociology and psychology. A growing body of empirical data has been obtained on a variety of specific behavioral issues (religious behavior, drugs, educational and occupational aspirations, emergent cultural themes, the “freak” life style, political behavior and ideology) and a true life-span perspective that considers the generational implications of several age groups.

There are five major themes that characterize the current concerns of generational analysis:

(A) Definition of generational units. The central issues are concerned with conceptual relationship among time, aging and social changes. Attempts have been made to provide a social-psychological viewpoint on the issues and variables involved in the identification of generational differences. In general, the empirical research has focused on the examination of generational phenomenon with respect to a macro (age-cohort) level or a micro (family lineage) level (Connell,³⁴ Bengtson and Black,³⁵ Jennings³⁶). Many of the apparent disagreements that have characterized generational analysis in the past decade can be traced to such questions as: Is it a “cohort gap” or a “lineage gap”? and What are the relative importance of cohort and lineage similarities and differences in accounting for broader patterns of societal change?

(B) **Continuity and discontinuity between age groups.** The central component of generational analysis is the extent of similarity and conflict between age groups in behaviors and standards of behaviors. The issue involves analysis of socialization or transmission from elders to youth, as well as the degree of feedback as youth socialize their elders. (Aldous and Hill,³⁷ Keniston,³⁸ Riley *et al.*³⁹) Many studies on similarities and differences between generations at either the cohort or lineage level are analyzed in terms of drug use, religious beliefs and behaviors, political orientation, and attitudes toward nuclear wars.

(C) **Duration of generational units.** This is concerned with the question whether contrasts between generations evident in a particular year or decade portend changes that will characterize a longer period of cultural history, or whether the differences are merely reflective of the social and psychological immaturity of youth. The central issue in the study of generations is therefore the relative role played by generational units (or group consciousness) and maturation in the dynamics of generational differences.

(D) **Generational solidarity.** This issue involves the degree of interpenetration and commonality among generational units. In part this reflects the degree of distinctiveness of the emergent cohort, and in part it reflects the homogeneity of experiences and outlook within the cohort. The impact of youth cohort solidarity on society, the nature of the social change it effects, and the growth of its impact by dissemination to other segments of society are topics which will receive considerable attention in coming years.

(E) **Generations and other dimensions of social structure.** This involves the functional relationships between generational dynamics and the issue of social organization: the interaction of age or age-consciousness with other dimensions of social differentiation. Several issues frequently stand out in the literature, including the effect of rate of social change on generational development, technological innovations and the relations between generations, mass media influences on generational dynamics (Hayakawa⁴⁰), the age structure of society as manifest in demographic characteristics, roles, and social class.

Due to the complexity of factors relevant to any characterization of social changes or stability, the preceding review suggests that no grand theory has been developed to describe the role of emergent generations in the course of social change. Bengtson *et al.*⁴¹ indicate that the orientation known as *general systems theory* which emphasizes the role of information process and feedback would be a possible guideline in future research of generational dynamics. Therefore,

in the next section of this chapter an effort will be made to review the reported problems of youth adjustments and their sources. In order to assess the general research findings, the theory and method in the reported studies of generation gaps will also be evaluated. An alternative research rationale and methodology – the semantic differential – will finally be presented.

Generational Gaps and Youth Adjustments

In the literature, many empirical studies have been reported on the characteristics of youth in relation to social changes and institutions. The so-called generational gap has been regarded as existing between today's older and younger people with respect to students' morals, attitudes, ethics, values and other contemporary social issues (Buys,⁴² Lerner *et al.*^{43,44}). These discrepancies have been regarded as associated with such behaviors as drug abuse and social rebellion by the young (Blum,⁴⁵ Goode,⁴⁶ and Ramsey⁴⁷). However, in most of the reported studies, the domain and relevancy of the issues such as war, sexuality, racism, were usually defined subjectively by the researchers. Issues on which significant differences may exist between the two generations may not readily be inferred as the real gaps that contribute to the behavioral dynamics of the present younger generation (Tzeng and Dimit⁴⁸). This implies that only the conflicting issues with highest psychological significance to the young will have greater influence, or more correlates, in determining their behavioral patterns and intentions.

In order to assess empirically for a group of college students the actual issue domain of generational disagreements, Tzeng and Dimit⁴⁹ used a natural elicitation procedure to obtain a list of items (areas) from college students of both sexes to represent what they considered the most significant differences of opinion they had with their parents. A total of 89 items were elicited and grouped into 11 categories according to their relative frequencies as follows:

1. Dating (with dominant items premarital sexual relationship and selection of dates)
2. Chemical substances and related behaviors (using drugs, drinking and smoking both cigarette and marijuana)
3. Money related issues (materialism and cars)
4. Individual appearance (mainly hair length, dress and facial hair)
5. General life patterns (religion, morals, life styles and goals)
6. Social values and political issues (political issues, racial and religious

prejudice, women's rights, changes in society, personal roles in social institutions)

7. Pastime activities (music, entertainment, late hours and travel)
8. Interpersonal relationship (friends of the same sex, friends of a different race, religion, nationality and sexual beliefs)
9. Education and career planning (perception of a good job, significance of education, grades and choice of own career)
10. Marriage and family (child-rearing, birth control and abortion, marriage, teen-age pregnancies)
11. Housing (coed housing, unmarried couples living together, value of fraternity and sorority, university living and living away from home after school)

These reported discrepancies between college students and their parents are generally concerned with self (ego orientation), to others (inter-personal relationships), and to society (social-economical aspects). Sex differences on some areas were also evident: for the males, the differences were mainly concerned with students as individuals; for the females, the issues involved the current progress of women's equal participation in social and political functions. According to Tzeng and Dimit, since these data are perceived areas of generation gaps as only reported by students, cross-validation from the parents should be made in order to establish common ground responses. As reviewed earlier, many observations on potential sources, behavioral dynamics, and correlates of the growth of generation gaps have been reported in the literature. The most important one seems to be rapid social transformation and depersonalization, as the result of great achievements in technology and science.⁵⁰ However, very little empirical research has been reported about the development of a theoretical framework or psychological explanation of the so-called generation gap. Tzeng and Dimit,⁵¹ however, attempt to investigate this problem area by comparing the response characteristics of 20 self-related variables between thirty college female students and their parents. The results indicated that there were some large generational discrepancies in the implicit value systems and psychological connotations of social and environmental institutions, including such items as personal political persuasions, rock music, personal attitude toward social political system in this country and the belief as to whose opinions (between parents and peers) are more influential when there are conflicting opinions for youth.

In order to probe the possible dynamics of generational discrepancies for

college female students, Tzeng and Dimit obtained factorial structures of the same 20 measurement variables for the two generations. The characteristics and hierarchical order of the first three factors for the parents group is: (1) complete ego-centralization of happy life, (2) association with peers and immediate living environment, and (3) materialistic (money) and emotional (children's conformity) security. The remaining factors are more remote from the necessary personal survival and identify; and are in order: (4) attitude toward social/political institutions, (5) personal pastime activities, and (6) entertainment. These kinds of psychological structures (factors) seems to reflect the adults' individuality with respect to the personal standing in the near living environment. But for female students, the factor structures were reported to reflect a group-oriented pattern of personal standing among the peers. Their self-perceptions, entertainment, relationships with close opposite-sex friends, attitude toward money, and general emotional stability are closely related with social institutions and peers. However, the conformity to parents was also reported as playing an important role in children's level of ego satisfaction. The potential adjustment difficulty for the youth will definitely arise when the peer pressures and the desire of parental conformity are not congruent. No empirical studies have been reported in the literature as to whether these findings would suggest the cohort solidarity among high school students and college females, however.

Evaluation of Reported Research Strategies

In the literature, numerous articles have been published which dealt with the problems of the so-called generational gaps. However, no universally agreeable conclusions have been reached for identification of the precise areas and degrees of generational gaps which have significant determining effects on culture changes. This is probably due to the fact that many reported findings were based on inferences from possibly biased subjective observations and/or empirical research. As Tzeng and Dimit⁵² pointed out, subjective selection of research issues or domains such as politics, values, sex, drugs, future career planning, could not guarantee the relevancy of issues in attributing to the behavioral dynamics of the present younger generation. Methodologically, most reported studies used only simple statistical comparisons (i.e., differences in percentages or in group means) on responses of various predefined questions. Therefore, functional relationships among variables were frequently integrated by subjective inferences or simple correlation analysis (or its equivalent form, such as path

analysis). All this implies that if one wants to conduct a sophisticated empirical research in this area, the following considerations should be made: (1) Areas of generational discrepancies should be directly obtained from the subject population (both youth and parents). This will insure the content validity of the research variable domain and thus maximize the construct validity of later research solutions. Tzeng and Dimit's⁵³ naturalistic procedure of eliciting conflictual issues directly from subject population will thus be used as the model for the present research. (2) Measurement tools used in the research should be able to reflect both the areas and degree of generational differences. The within-and between-generational similarities and differences in underlying psychological frameworks for perceiving the conflicting issues should also be maximally accounted for. This suggests that in an ideal research situation one should apply a research methodology that could investigate the human cognitive structures and their influences in human perceptions and judgements. In this respect, the semantic differential technique and its rationale, as reviewed in the next section, will be used as the main measurement instrument in this research.

Behavioral Rationale of the Semantic Differential Technique

According to Tzeng⁵⁴ the process of human perceiving and judging involves three major variables: unique characteristics of the *individuals* making the judgments, characteristics of the *objects* (things or persons) being judged, and the *criteria* (or *meaning systems*) people use. Meanings of objects always represent different experiences of the individual organism in *interaction* with the environment (including other humans). The meanings of the same objects for different individuals will vary to the extent that their experiences and behaviors toward the objects have varied. This implies that meanings of objects will reflect the *idiosyncrasies of individual learning experiences*. Since one of the most important factors in social activity is meaning and change in meaning – whether it is termed “opinion”, “value”, “attitude”, or something else, measurement of meaning has therefore both practical and theoretical significance in the social sciences.

As to the question of what *kind* of meaning is being referred to, is it measurable? According to Osgood⁵⁵ it is the *semantic meaning* which is defined as the underlying psychological relation between signs (e.g., the word “mother”) and their significates (the object MOTHERS). Osgood developed a representational mediation theory in his book, *Method and Theory in Experimental Psychology*

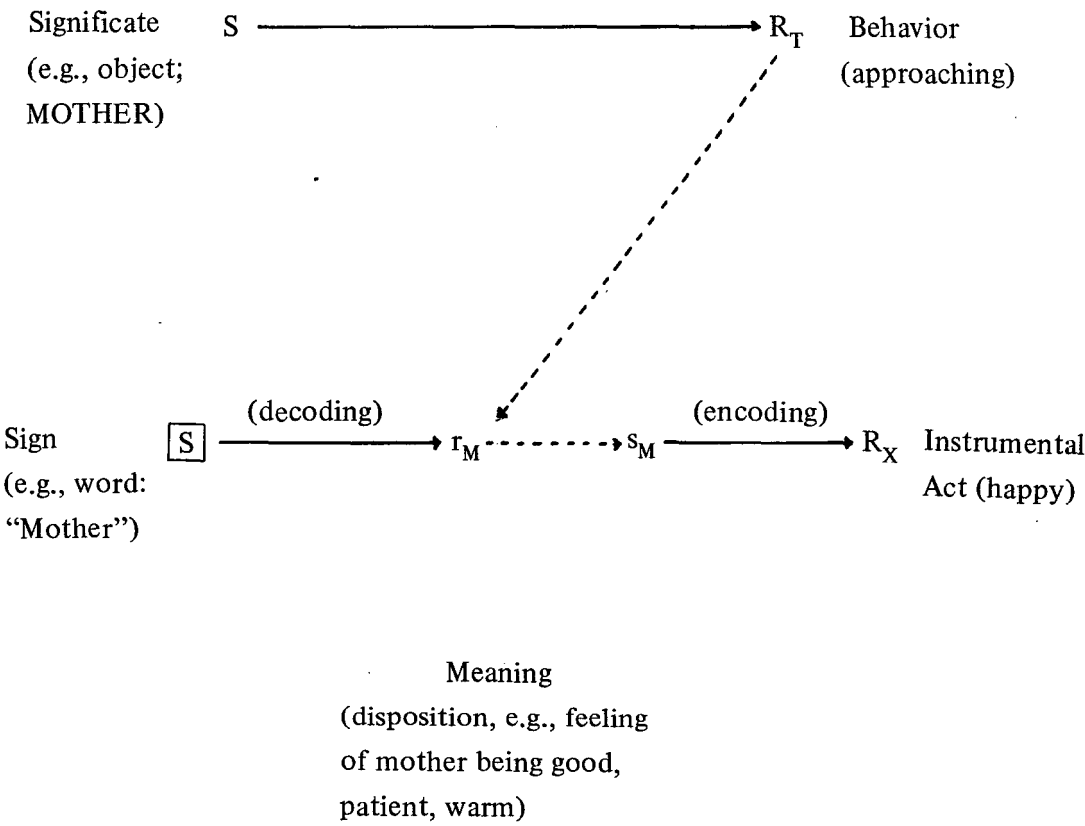


Figure 1: Schematic representation of the development of conceptions (this figure is from Tzeng⁵⁶).

as a behavioral model in general and theory of meaning in particular, within the stimulus-response, association paradigm, as shown in Figure 1.

In this model, the signs and significates are related via the theoretical constructs called "representational mediator" (r_m — s_M) which are derived from the behavior (R_T) elicited by significates. For example, a child tends to approach his mother, who has been very *good*, *warm*, and *patient* to him, whenever he sees her. After the child has learned the word "mother", he develops psychological dispositions toward conceiving MOTHER as being very *good*, *warm* and *patient* from these experiences with his own mother. These dispositions are identified as "meanings" of the concept "mother". They are *representational* because they represent part of the external experience (R_T) produced by the signicate itself (MOTHER). They are also *mediational* because the meanings are usually associated with a variety of instrumental acts (R_x , for example, feeling of happiness when the child sees his MOTHER). In this variation from usual S-R paradigms, Osgood has divided the process of the stimulus-response into two stages. The first stage, called "decoding", is the association of signs with mediator components (r_M) or features (the semantic "code"), and therefore this stage is the "understanding" of objects or significates. The second stage, called "encoding", is the association of the same mediation processes, now as internal stimuli (s_M) or "intentions", with overt instrumental or linguistic behavior, thus the "expression" of ideas.

Dichotomies of Semantic Meanings

Due to different processes in formulating psychological dispositions, meanings of objects have further been dichotomized into two aspects — affective and non-affective.⁵⁷ The reason is that it is crucial for the human animal, as well as other higher organisms, to make different emotional (autonomic) reactions to distinguish among the *signs* of things as being *good* or bad (Evaluation) *strong* or *weak* (Potency) and *active* or *passive* (Activity) with respect to himself when confronting any behavioral decision (or judgment) situation. These distinguishing processes reflect a person's attitude or feelings about an object. They are primarily emotional in nature, and thus the meaning of this type is *affective*.⁵⁸

When meanings of signs are established to characterize objects or events *referentially*, they reflect a person's implicit judgments or descriptive criteria about the object. The criteria include various conceptual categories, such as grouping, contrast, similarity, and classification. In description of persons, for

example, such terms as *sophisticated-naive*, *predictable-unpredictable* may be used. The meaning from this abstract structure of signs can be defined as non-affective (or denotative) meaning.⁵⁹

Typically these two meaning systems — affective and non-affective — are simultaneously involved in human perceptual and judgmental situations. Affective meaning systems play a dominant role. Measurement of these two aspects of meaning in relation to individual and object variables are basic to the social behavioral sciences.

Scales and Semantic Components

The meaning of a sign (i.e., a concept) can be characterized by qualifiers or adjectives. These qualifiers (they will be referred to as “scales”) are “different” in reference to different psychological criteria (or areas). This is because the meanings of an object are *componential* in nature — consisting of a number of different (both affective and non-affective) semantic features of psychological criteria. Therefore, Osgood⁶⁰ defined meanings as *a simultaneous bundle of distinctive semantic features or components*.

Each feature or component can be represented by a number of similar scales which connote the same meanings in a particular context and for a particular group of persons. For example, in judgment of personalities, we may use such scales as good (bad), nice (awful), warm (cold), and honest (dishonest) to mean one area (component) of character, and use strong (weak), powerful (powerless) and dominant (submissive) to mean another area.

Osgood⁶¹ states that semantic components have three basic characteristics: (1) *Bi-polar organization*: meanings of an object are differentiated in terms of polar oppositions of components, and each component is defined by a number of pairs of bi-polar adjectives. (2) *Attribution of positiveness to one of the poles of each semantic component*: the positive poles such as *strong* and *active* are somehow psychologically positive, like *good*, as compared with their opposites, *weak* and *passive*. (3) *A tendency toward parallel polarity among scales*: bi-polar scales representing diverse semantic components tend to be related in parallel, positive with positives and negatives with negatives, rather than in contrary directions, thus *good AND strong*, but *good BUT weak*.

Under the above circumstances a group of perceived objects or verbal signs can be measured by a group of bipolar adjective scales from which we can identify (1) the semantic components (or dimensions) which are relevant for the entire

set of objects, and (2) the degree to which each object or sign is related to each semantic component.

The Semantic Differential Technique and Its Measurement Rationale

In order to measure the meanings of objects and linguistic signs (concepts), Osgood *et al.*⁶² has developed a quantitative methodology, called the Semantic Differential (hereafter abbreviated SD) technique. He called it “semantic” because it is supposed to measure aspects of *meaning*, and “differential” because the technique provides differential results in terms of *dimensions* of meaning. The basic measurement assumption of the SD is that the objects or concepts under study can be represented geometrically by points in a multidimensional meaning space which can be accounted for by a given number of significant semantic features.

Based on the properties of the vector space in a right-angle coordinate system, the semantic differential technique makes the following analogies:

(1) There is a *scale vector space*, called the *semantic space* in human cognitions, which consists of a number of meaning dimensions.

(2) The axes are considered to be *independent semantic components* which are the criteria used in human judgment.

(3) The origin of the vector space is defined as complete “meaninglessness” or irrelevance (neutrality) of all components to objects under study.

(4) The meaning of any *object* (or *concept*) is considered as a point in this N-dimensional semantic space and can be represented by a vector from the origin to that point.

(5) The length of the vector is an index of the “degree of meaningfulness” of this object.

(6) Different projections of each object onto various dimensions represent different degrees of intensity — positive, neutral or negative — of the object in association with different semantic components.

In short, the purpose of the SD is to identify the relationship between objects (or concept) and their semantic components in a multidimensional meaning space. Given the information on two objects (or concepts), similarities and differences of their meanings can therefore be differentiated by means of their relative relationships with meaning components in the space.

Following the above theoretical development, the SD model covers two

steps in measurement: (1) *to identify psychological semantic dimensions as axes in the semantic space*, and (2) *to measure the meanings of objects with respect to these semantic components*. While the first step is the procedure of developing the SD rating scales, the second step is the application of the SD in various context areas.

Since semantic components are not directly observable, they must be “discovered” from evaluation of inter-relationships among scale vectors in the semantic space. This discovery procedure includes the following three steps:

(1) To obtain a representative sample of bi-polar scales which are actually used in judgments of a given object domain; (2) to construct inter-scale correlations in a semantic space based on their characterizations of usage for the objects being judged, and (3) to identify (discover) different natural clusterings of these vector scales to represent various hypothetical constructs (or components) of human conceptions. This procedure has been used by Osgood and his associates in cross-cultural research and can be described as follows:

From a representative sample of 100 diverse concepts (including abstract terms, such as SUCCESS, POWER, and HOPE, as well as concrete terms, such as BIRD, DOCTOR and HOUSE) which have no translation difficulty in various communities, a large sample of verbal qualifiers (adjectives, such as good, hard, long, tender, sharp, etc.) were elicited from high school male students in some 25 language/culture communities around the world. This is called the naturalistic elicitation procedure. Each subject was asked to give an adjective as his response in describing each of the 100 nouns.

A total of 50 qualifiers and their opposites were selected, based on their high productivity (high association with the 100 terms across all subjects — they are produced from a large number of terms by a large number of subjects) and independence (low interrelationship among adjectives with respect to both the 100 terms and all subjects). These qualifiers and their opposites were used to construct the SD bi-polar scales for ratings of the same 100 terms by new samples of the same high school male student population in all language/culture communities involved. These scales presumably represent the entire common criteria (i.e., meaning vectors in the semantic space) used in the judgments of the 100 representative concepts of human environments.

In preparation of rating booklets, each bi-polar adjective scale is defined as a straight line in the semantic space and is scaled into seven discriminable steps from +3 to -3. The central position, the zero point, is assumed to be located

at the origin of the semantic space, representing neutrality of the quality. The position 1 or -1 is designated as “slightly”, the position 2 or -2 “quite” and position 3 or -3 “very”. These particular quantifiers have been shown to yield approximately equal degrees of intensity of meaning. In a typical SD task, the concept (object) is rated against a set of bi-polar scales as follows:

							MOTHER							
good		:		:		:		:		:		:		bad
	+3		+2		+1		0		-1		-2		-3	

One of the spaces is checked to indicate a respondent’s judgment on the continuum. For example, when most people rate MOTHER +3, they are creating a little sentence which says *Mothers are very good*. All of the “sentences” on the SD form have this same structure – *substantive (be) quantifier* qualifier – but the substantives (concepts), qualifiers (adjective pairs) and poles of the adjective (left-right ordering of pairs) are randomly ordered in the booklet.

Within each culture, a sample of people rated a set of concepts against the 50 selected scales. A cube of data was generated, as displayed schematically in Figure 2. The rows of the cube represent the subjects doing the ratings, the columns represent the scales, and the slices, front to back, represent the substantive concepts being judged. Each cell contains a single value from +3 through 0 to -3 , to represent how a particular subject rated a particular concept against a given scale.

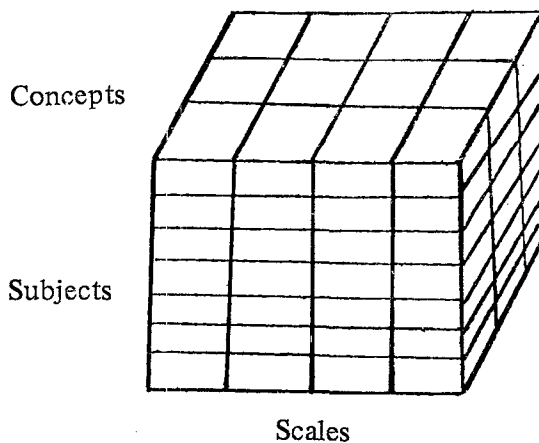


Figure 2: The three-mode cube of semantic differential data.

Given such three-mode data for each culture, the degree of semantic similarity among descriptive scales can be indexed by their degree of similarity in usage across all subjects and concepts. Conceptually, this is to obtain inter-correlations among the 50 scales, computed across the other two data modes (subjects and concepts), in a semantic space with each scale as a vector. These inter-scale correlations were then used as input to solve for natural clusters of all scale vectors. Statistically, this is to identify "discover" various independent clusters of vectors as different axes (called factors) which are orthogonal to each other and can account for the entire semantic scale vector space. The dimensionality of the semantic space is therefore the number of independent vector clusters in the space.

To implement the above purpose, a statistical method known as "pan-cultural factorization", (for details see Osgood, *et al.*⁶³) was applied to the crosscultural interscale correlations (each culture's 50 scales were correlated with each other cultures' scales across indigenous group mean ratings of the 100 terms) among some 25 cultures. Conceptually factor analysis starts from input of inter-correlations (or their equivalent forms) among variables, and solves for (1) factors of the semantic space and (2) projections of all vectors (variables) on the resultant dimensions in a final factor loading matrix. Psychological characteristics of each dimension (each column of the factor loading matrix) can be determined and labelled by common properties of defining vectors (variables as rows of the factor loading matrix) which have uniquely high projections on the dimension, but very low on all other dimensions. Three cross-culturally common and independent (orthogonal) factors were obtained from the pan-cultural factor analysis and identified as *Evaluation*, *Potency* and *Activity*. For each culture, four indigenous scales which have the highest and purest (uniquely high) projections on each of these three semantic components were selected as shown in Table 1. Since the three underlying dimensions appeared to be on the way humans attribute more primitive emotional feelings (rather than sensory discrimination) towards persons and things in their environments, they constitute an affective (or connotative) meaning system.

All scales in Table 1 were defined as "markers" for their respective dimensions, and they are functionally equivalent in referring to the same affective psychosemantic components among all 25 cultures involved. Under these circumstances, these scales can be thought of as comparable "yardsticks" for

Table 1
Examples of Pan-Cultural E-P-A Markers*

Language/Culture Community	Semantic Feature		
	Evaluation	Potency	Activity
AE (American/English)	nice/awful	big/little	fast/slow
	good/bad	powerful/powerless	alive/dead
	sweet/sour	strong/weak	young/old
	helpful/unhelpful	deep/shallow	noisy/quiet
BF (Belgium/Flemish)	good/bad	strong/weak	quick/slow
	magnificent/horrible	big/small	active/passive
	beautiful/ugly	deep/shallow	impetuous/quiet
DH (Delhi/Hindi)	glad, happy/angry	strong/weak	fickle/serious
	good/bad	big/small	soft/hard
	nectar-like/poisonous	heavy/light	slim/thick
	useful/harmful	strong/imperfect	wet/dry

*All scale markers from non-English cultures in this table are here translated into English, but they were actually in their respective native languages in all procedures of data collection and analyses. This table is from Osgood, May, & Miron, *Cross cultural universality of affective meaning systems*.

measuring the affective meanings of the same concepts across different language/culture communities.

The SD technique has also been applied by Osgood and his associates (for details see Osgood, Suci and Tannenbaum,⁶⁴ and Snyder and Osgood⁶⁵) to various types of subjects (of different ages, education, IQ levels, political affiliations, and even normals vs. schizophrenics) with different samplings of scales and of concepts, and even different methods of factoring, these three dominant and independent factors have kept reappearing. The universality of affective meaning — E, P, and A — is generally regarded as psychological reality by SD practitioners around the world.

Methodology for Separating Affect and Denotation

Tzeng⁶⁶ and Tzeng and May⁶⁷ have argued that, in the judgment of a set of more homogeneous concepts (e.g., all relating to personalities as drugs) on SD-type scales, the affective meaning space can be separated from the remaining factor structure by using the “markers” of the Osgood pan-cultural E, P, and A dimensions as control traits. The structure of the denotative meaning system can then be analyzed independently. The simultaneous influences of affective and denotative meaning components on each scale can also be differentiated. As Osgood⁶⁸ pointed out a decade ago, development of a rigorous method for such a simultaneous and differential identification is one of the most important problems for contemporary psychosemantics.

Tzeng⁶⁹ has developed a quantitative method for separating the semantic space. In essence, the method can be summarized as follows: Partition the initial scale factor matrix of the personality ratings into two subdomain matrices — the marker domain (the E-P-A marker scales on factors) and the non-marker domain (other scales on factors). After a sequence of transformations, the resultant factor matrix is divided into four quadrants: Q_{11} , the pancultural marker-scale loadings in the affective space (from which the purity of these markers when functioning in the homogenous personality domain can be determined); Q_{21} , the non-marker-scale loadings in the Affective space; Q_{12} , the loadings of E-P-A marker scales on factors in the Denotative space (which should be near zero), and Q_{22} , the loadings of non-marker scales in the Denotative space (from which the semantic “character” of the non-affective factors can be determined). After completion of the affect/denotation separation in the scale factor matrix, a further application of Tucker's⁷⁰ three-mode factor analytic model is made to

compute the concept and subject factor structures and factorial relationships among subjects, concepts and meaning components in the core matrix.

Tzeng⁷¹ has applied the above method to data of cross-cultural personality research from Britain English, Finland Finnish, Belgium Flemish, and Japan Japanese with the following observations:

(1) the separation of affect and denotation is not only theoretically possible but is also operationally successful by the method employed.

(2) Affective dimensions proved to be common to all cultures, confirming the hypothesis that pan-cultural markers also function as affective markers for indigenous personality ratings.

(3) The existence of denotative dimensions represented clear references for affect-free "description" of personalities.

(4) Both cross-cultural scale and concept factors include three "types": cross-culturally common, culture specific, and sex/cultural specific.

(5) The "cross-cultural" inner core matrix provides evidence for both intra- and inter-cultural differences.

(6) Four kinds of reliability indices indicate high stability of the SD ratings.

(7) The methodology developed in the present study, along with the SD technique can be applied to all kinds of subjects and/or concept domains. By testing different age groups, unique patterns of cultural change in different concept domains can be obtained. Cross-cultural comparisons on such patterns could be of considerable importance for international understanding.

Design of the Study

Rationale and Purposes

According to Tzeng⁷² the process of human perceiving and judging involve three major variables: (1) the individuals making judgment, (2) objects or issues being judged, and (3) the underlying psychological frames of reference which subjects have developed. Individual differences in perceptions or attitudes are mainly due to their previous learning experiences or interactions with the environment. In the present research of generations, it seems quite reasonable to apply Tzeng's theoretical framework of human perception for empirical validation of the so-called generation gaps. This implies that for a subject population (e.g., high school students and their parents), while the issues or concepts of generational discrepancies can be defined as the *object* domain and the youth

and their parents can be defined as the *subject* mode, the extent of generational discrepancies on issues can be measured by *underlying psychological criteria*.

Under this theoretical formulation, areas of opinion differences should therefore be obtained through a *naturalistic elicitation* procedure as recommended by Tzeng⁷³ from both generations. Resultant items will define the entire domain of generational discrepancies. Each item will further reflect one of the following three characteristics: (1) generational common variable — an area of discrepancies perceived by both generations as significantly different, (2) parental unique variable — an area only perceived by parents as significantly different from their children, and (3) children unique variable — an area uniquely perceived by the youth (of either or both sexes). While the generational common variables may be regarded as *mutual perceived generation gaps*, the parental and children unique variables may be regarded as *partial perceived generational gaps*. It should be noted that since all elicited items are not automatically mutual independent, it is therefore necessary to reduce the entire item pool into an organized categorical set. Areas of generational discrepancies will therefore become obvious in relations to human societal functions. However, these areas will only represent the qualitative gaps. The severity of these gaps (i.e., the quantitative properties of generational gaps) should be measured independently.

The semantic differential technique which can account for the three variables in human perceptions is used for measurements of quantitative properties of generational gaps. In the process of selecting semantic differential bi-polar scales for ratings of all important issues by both generations, Osgood's affective (evaluation, potency and activity) markers will be used and other concept domain relevant traits will also be constructed through a naturalistic elicitation procedure.⁷⁴ Given the present design of research, characteristics of three sources involved in generational gaps — issues by psychological framework by two subject generations — will become identifiable.

In order to investigate the fundamental nature (direct as well as indirect courses) of generational gaps, all important potential sources and psychological correlates of generation gaps as reported in the literature will be constructed as measurement tools. Through multivariate analytic treatments of these measurement data from both generations, the similarities of differences in psychological structures and interrelationships of these sources variables will then be used to probe the dynamics of generation gaps and social changes. In this respect, the present research will function not only as an exploratory study but also as an

confirmatory check of other reported findings.

Method and Strategies

The degree of interstratum similarity or cohesiveness in generation studies has received considerable attention in the past research. This is also the major focus of the present research as indicated above. Furthermore, due to the possible heterogeneity properties within the youth – a “homogeneous” younger generation composing of heterogeneous components, such as sex, educational levels, and social economic backgrounds, the traditional boundaries of age differentiations should not be the only independent variable to investigate the generations. Therefore in order to maximize the subject homogeneity within generations, the present study will focus on a high school student population in the Midwest with upper-middle social economic background. Their parents will also be sampled. The issue of cohort solidarity can thus be examined to a full extent. Comparisons of parental perceptions on issues with their children’s perceptions can further be made to provide more precise information on the dynamics of generational gaps.

In summary, the entire research procedure can be divided into three phases:

(1) Elicitation of significant opinions (issues) from both generations. This is to identify (categorize) the significant qualitative domain of contemporary generation gaps. Within (sex) and between generation difference will be examined.

(2) Construction of the *opinion differential* for rating of all selected semantic differential scales. This is to obtain the three-mode data of subjects by concepts by scales for identification of psychological structures of concept and semantic factors across different groups.

(3) Construction of various unidimensional measurements for evaluation of the potential sources and dynamics of generation gaps. This is to provide a foundation for integration of solutions from phases 1 and 2 and subsequently for a possible theorization of generation gaps.

It is clear that all these three phases are interrelated and equally important as far as the investigation of the phenomena and dynamics of true generational gaps is concerned. The detailed description of the method, procedures and results of these three phases will be presented separately in the following three chapters. Their relationships will be examined and integrated in Chapter V. Comparison between solutions from high school students in the present study and those from college students as reported by Tzeng and Dimit⁷⁵ will also be made to determine

the cohort solidarity and dynamics of youth culture changes within the American indigenous culture.

Rationale for Statistical Techniques

In order to provide objective accounts for the phenomena of the so-called generation gaps, various statistical techniques are employed in this study under considerations of measurement theories and practice. In Phase I, the *naturalistic approach* used for eliciting discrepant opinions is to guarantee the relevancy and representativeness of issues from the subject population. Based on proportional distributions of response items, a final set of representative items can be obtained to maximize the reliability and construct validity of solutions in Phase II. Its solutions are therefore fundamental for generalization of solution of the entire research.

In Phase II, as presented in Chapter III, four major procedures are employed: (1) the naturalistic elicitation approach (to obtain all concept (i.e., issue) domain relevant traits actually used by individuals), (2) content analysis of elicited traits (to reduce all elicited qualifiers to a representative set of scales with high frequency, productivity, and diversity in usage across all subjects and concepts), (3) three-mode factor analysis (to identify) simultaneously factors of all three mode variables — issues, SD scales, and individuals — and their interactions), and (4) coefficients of congruence (to measure the similarities and differences in factor structures of scales as well as concepts across all four generation/sex groups). All these techniques are under the considerations of (1) the content validity and representativeness of issues and of semantic criteria, (2) construct validity of measurement results, and (3) all possible information on intra- and inter-generational comparisons of factor structures.

In Phase III, where ANOVA is used to identify intra- and inter-group differences with respect to all 16 unidimensional variables, multiple regression analysis is used to predict the reported degrees (or behavioral aspects) of generation gaps within each generation/sex group. Therefore, since Phase II is concentrated on the measurements of behavioral dispositions (or conceptions) of generation gaps, and Phase III is on the measurements of social and psychological correlates, the integration of solutions from both phases will further help our understanding of the dynamic relationships between individual dispositions and their social behaviors and adjustments.

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CHAPTER II

ISSUES OF OPINION DIFFERENCES BETWEEN STUDENTS AND THEIR PARENTS

The purpose of this chapter was to investigate significant areas of opinion differences between high school students and their parents through a naturalistic elicitation procedure as employed by Tzeng and Dimit.⁷⁶ The items obtained from both generations were further grouped into categories to represent major characteristics of generation gaps. The purpose of these results was to provide bases for examination of the extent of discrepancies through the semantic differential technique at both the between-sex and between-generation levels in Chapter III.

Subjects

One hundred and twenty high school students ranging in age from 14 to 18 were sampled randomly from Glenbrook South High School in Glenview, Illinois, based on student identification numbers obtained from the school's registrar office. In order to maximize their representativeness of two sexes and four school years (freshman, sophomore, junior and senior), fifteen students were selected from each sex by school year group. Parents of these students sampled were also asked to participate in this study. In general, subjects were residents of this school district area, representing typical suburban communities surrounding Chicago city.

Procedures

An open-end questionnaire was constructed as given in Appendix A. Each subject was asked to list at least five items (or areas) which they considered to represent the most significant differences in opinion or attitudes between them and their counterparts. Specific phrases were required as their responses. For both the student and parent samples, the questionnaire was administered as a take home test. All subjects were also informed of the purpose and nature of this study therefore they were asked not to discuss their response or opinion with peers as well as other family members before the completion of their test. Furthermore, for purpose of soliciting subject cooperation, the confidentiality and anonymity of their responses were also guaranteed by two ways: first,

subjects were asked not to give any personal identification on the questionnaire, and second, each completed questionnaire was mailed back to the present investigator separately by a provided envelope.

Results

For the two student samples, the number of returned questionnaires were 42 from the male student group and 40 from the female student group. Each represents about a 70 percent return rate. For the parent sample, on the other hand, the return rate was lower with only 60 to 120 questionnaires completed. The total numbers of items elicited were 247, 195 and 245 for male students, female students and parent groups respectively. Their respective mean responses, 5.88, 4.87 and 4.08, indicates that parents have a somewhat smaller domain of so-called generation gaps.

All items were intuitively grouped into 23 categories in Table 2 and ordered in accordance with their relative frequencies computed across three subject groups. Within each category, items were also ordered based on their relative importance (frequency). "Restriction on sports and activities after school" was the most conflictual area as reported by the students of both sexes and their parents. It represents about ten percent of the entire conflicting issue domains for all three groups. Items in this area included such issues as types of friends and types of activities or sports after school. Between the two sexes, this area seemed to be more conflictual for male students.

"School grades and future goals" was the second major area of disagreement, including items like school grades, plan for the future, home work and priority in life, etc. There seemed no significant difference between the two student groups in their frequency distributions. But the parent generation perceived this area being more dominant (with 11.02%) in the entire domain. The third category was "dating and sex education". This consisted of clear within and between generational discrepancies of opinions. "Going out" and "dating" were perceived by female students as especially conflictual with their parents. For male students, these issues were less problematic with their parents. However, this category was not equally reported by the parent group as having high disagreement with their children. Therefore, the obvious discrepancy between parents and students (students mean 8.82% versus parents mean 3.20%) clearly reflected the existence of generational conflicts.

The fourth category was "responsibilities at home". The obvious difference

Table 2
Summary of Elicited Attitudinal Differences Between Generations

Response Category	Frequency		Total	
	Students	Parents		
	(Male/Female)	Total		
1. Restriction on sports and activities				
Type of friends	(8/9)	17	9	26
Stay after school	(4/5)	9	3	12
Watching T.V. too long	(2/0)	2	5	7
Doing everything with family	(3/0)	3	4	7
Decision making on activities	(2/2)	4	2	6
Type of sports	(4/0)	4	2	6
Playing	(4/0)	4	1	5
Type of movie	(1/0)	1	1	2
Sum	(28/16)	44	27	71
Percentage*	(11.33/8.20)	(9.95)	(11.02)	
2. School grades and future goals				
School grades	(5/5)	10	8	18
Plan for the future	(6/2)	8	7	15
Home work	(5/2)	7	6	13
Attitudes toward day to day living	(2/7)	9	4	13
Priorities in life goals	(1/2)	3	1	4
Study with music playing	(1/0)	1	1	2
Sum	(20/18)	38	27	65
Percentage	(8.09/9.23)	(8.59)	(11.02)	
3. Dating and sex education				
Going out	(11/9)	20	5	25
Dating	(2/7)	9	2	11
Views on sex	(3/2)	5	0	5
Sex education	(0/1)	1	1	2
How to handle girl friends	(2/0)	2	0	2

How to be respectful to boy friend	(0/2)	2	0	2
Sum	(18/21)	39	8	47
Percentage	(7.28/10.76)	(8.82)	(3.26)	
4. Responsibilities at home				
Work more around the house	(4/9)	13	12	25
Children's responsibilities at home	(5/0)	5	8	13
Things children have to pay for	(2/0)	2	1	3
Work ethic	(1/0)	1	1	2
Sum	(12/9)	21	22	43
Percentage	(4.85/4.61)	(4.75)	(8.97)	
5. Curfew				
Children's staying out late	(16/12)	28	8	36
How late the children can stay up	(2/0)	2	2	4
Necessity of curfew	(1/0)	1	0	1
Sum	(19/12)	31	10	41
Percentage	(7.69/6.15)	(7.01)	(4.08)	
6. Religion related issues				
Religious ideas	(5/5)	10	6	16
Going to church every Sunday	(4/2)	6	5	11
Religion	(4/0)	4	2	6
Believing in faith	(0/4)	4	1	5
Freedom to choose own religion	(1/0)	1	0	1
Sum	(14/11)	25	14	39
Percentage	(5.66/5.64)	(5.65)	(5.71)	
7. Rock music				
Kinds of music to listen	(5/5)	10	8	18
Playing music too much and too loud	(4/2)	6	7	13
Time spent on musical instrument	(1/2)	3	4	7
Sum	(10/9)	19	19	38
Percentage	(4.04/4.61)	(4.29)	(7.75)	

8. Parents consultation on spending

money

Ways of spending money	(7/9)	16	8	24
Family money problem	(0/2)	2	1	3
Perception of monetary value	(1/0)	1	1	2
Sum	(8/11)	19	10	29
Percentage	(3.23/5.64)	(4.29)	(4.08)	

9. Telephone

Talking on phone too long	(5/6)	11	15	26
Giving phone message too late	(2/0)	2	0	2
Sum	(7/6)	13	15	28
Percentage	(2.83/3.07)	(2.94)	(6.12)	

10. Owning or driving a car

Having a car	(6/4)	10	8	18
Driving too fast	(2/0)	2	4	6
Views on owning a motorcycle	(1/0)	1	1	2
Racing car	(1/0)	1	1	2
Sum	(10/4)	14	14	28
Percentage	(4.04/2.05)	(3.16)	(5.71)	

11. Drinking

Drinking alcohol	(7/0)	7	8	15
Drinking beer	(2/2)	4	2	6
When a student can start drinking alcohol	(1/0)	1	4	5
Attitude toward legalization of alcohol	(1/0)	1	1	2
Sum	(11/2)	13	15	28
Percentage	(4.45/1.02)	(2.94)	(6.12)	

12. Going steady

The necessity of going steady	(6/4)	10	7	17
Going steady among high school students (behavior)	(5/2)	7	3	10

Sum	(11/6)	17	10	27
Percentage	(4.45/3.07)	(3.84)	(4.08)	

13. Neatness of a bedroom

Neatness of a bedroom	(7/5)	12	12	24
Habit of keeping things at home	(1/0)	1	2	3
Sum	(8/5)	13	14	27
Percentage	(3.23/2.56)	(2.94)	(5.71)	

14. Independent living

Live outside of home	(10/9)	19	7	26
Sum	(10/9)	19	7	26
Percentage	(4.04/4.61)	(4.29)	(2.85)	

15. Dressing

Clothing	(8/2)	10	6	16
The way of dressing	(2/0)	2	2	4
Make up (cosmetics)	(0/2)	2	2	4
Sum	(10/4)	14	10	24
Percentage	(4.04/2.05)	(3.16)	(4.08)	

16. Showing respect to authority

Interruption of conversation	(1/2)	3	2	5
Obedience	(2/2)	4	1	5
Parents' shifting moods	(1/4)	5	0	5
Courtesy	(0/2)	2	2	4
Asking for father's permission	(0/2)	2	0	2
Sum	(4/12)	16	5	21
Percentage	(1.61/6.15)	(3.61)	(2.04)	

17. Hair style

Length of hair	(12/0)	12	6	18
Freedom to choose own hair style	(1/0)	1	1	2
Sum	(13/0)	13	7	20
Percentage	(5.26/0)	(2.94)	(2.85)	

18. Discussion issues

Lack of understanding	(0/2)	2	1	3
What school to go to	(2/0)	2	1	3
Prejudice	(0/2)	2	0	2
Approach toward problem solving	(1/0)	1	1	2
Distinction between socio- economical classes	(0/2)	2	0	2
How to spend summer	(0/2)	2	0	2
Views on death and suicide	(0/2)	2	0	2
Taste on art forms	(0/2)	2	0	2
Sum	(3/12)	15	3	18
Percentage	(1.21/6.15)	(3.39)	(1.22)	

19. Drug, smoking and gambling

Smoking	(2/4)	6	1	7
Drug	(3/0)	3	3	6
Gambling	(1/0)	1	0	1
Sum	(6/4)	10	4	14
Percentage	(2.42/2.05)	(2.26)	(1.63)	

20. Double standards

Favoritism	(5/2)	7	1	8
Punish differently and unfairly	(1/2)	3	1	4
Sum	(6/4)	10	2	12
Percentage	(2.42/2.05)	(2.26)	(0.81)	

21. Privilege and privacy

Over-protection	(2/4)	6	1	7
Independence	(1/0)	1	1	2
Privacy	(1/0)	1	0	1
Privileges	(1/0)	1	0	1
Philosophy	(1/0)	1	0	1
Sum	(6/4)	10	2	12
Percentage	(2.42/2.05)	(2.26)	(0.81)	

22. Miscellaneous (Female)

Selfishness	(0/3)	3	0	3
Talk openly about anything	(0/3)	3	0	3
Hand writing	(0/3)	3	0	3
Showing emotion to other people	(0/3)	3	0	3
Sarcastic remark	(0/2)	2	0	2
Sources from which a person can learn good values	(0/2)	2	0	2
Sum	(0/16)	16	0	16
Percentage	(0/8.20)	(3.61)	0	
23. Miscellaneous (Male)				
Government and politics	(2/0)	2	0	2
Sleeping in the morning	(2/0)	2	0	2
Having a party	(2/0)	2	0	2
What for dinner	(2/0)	2	0	2
Way of camping	(1/0)	1	0	1
Views on owning a gun	(1/0)	1	0	1
Use of fireworks	(1/0)	1	0	1
Trivia	(1/0)	1	0	1
Teasing	(1/0)	1	0	1
Sum	(13/0)	13	0	13
Percentage	(5.26/0)	(2.94)	0	
Total frequency	247/195	442	245	687
Number of subjects	42/40	82	60	142
Mean	5.88/4.87	5.39	4.08	

*Percentage is computed from dividing sum of each response category by total frequency within each subject group.

in proportions of responses between students and their parents (4.75% versus 8.97%) indicated the emphasis of sharing family responsibilities by the parents. The fifth area of disagreement, "curfew" was related to restriction on children's sleeping time. However, parents considered this area less conflictual. The sixth category was "religion related issues" including such items as religious ideals, attending church, belief in God. No obvious difference was found within and between generations as far as the proportion of its importance with respect to their respective generation gap domains.

"Rock music" was the seventh area of disagreements with parents being more sensitive about its value. The eighth area was related to parental roles in children's spending money behaviors. No obvious sex and generational differences was observed. The ninth area, "telephone", included two items — children's talking too long on telephone and parents' giving phone message too late. Parents regarded this category as a more important area of conflict than their children.

"Owning or drivning a car" was the tenth category. The order of relative proportions among the three groups was, in order, female students, male students and parents. 'Having a car' in particular was the most dominant item for all subjects. The eleventh area, "drinking", has a similar pattern of frequency distribution as the issue related to cars. However, except for the item of drinking beer, none of the other items were reported by female students. "Going steady" was the twelfth area of discrepancy listed. This included both the opinion of the necessity of going steady and the actual dating pattern. No proportional differences was found among all three groups of two generations.

The thirteenth area, "neatness of bedroom", included the condition of children's bedrooms and their habits of keeping things at home. In general, parents were less satisfied with both items than their children. The fourteenth area was the issue of living outside among high school students. Both male and female students tended to perceive this as ~~Be~~ more problematic than their parents. "Dressing" was the fifteenth issue with no difference of proportions between male students and the parent group. However, female students considered it least problematic than the male students and their parents. The sixteenth area, "showing respect to authority", included items such as obedience, courtesy, interruption of conversation, and asking for father's permission. This issue was especially emphasized by female students.

"Hair style" was the seventeenth area which was the most emphasized as conflicting by male students. On the other hand, it was entirely not a conflictual

item for female students. The eighteenth issue, "discussion on issues" seemed to relate general social perceptions and behaviors (e.g., what school to go to, prejudice, distinction of social-economic classes, taste of art, etc.). Compared with low response frequencies from male students and parents, this was an issue specifically emphasized by female students.

The next three categories had the fewest frequencies and showed no major differences between sexes or generations. Category nineteen was "drug, smoking and gambling", category twenty was "double standards" (toward different children) and category twenty one was "privilege and privacy" (over-protection, independency, privacy, privilege and philosophy). The last two categories were student/sex specific issues. Category twenty-two identified as "miscellaneous for females" consisted of items reported uniquely by female students. They included selfishness, talk openly anything, hand writing, showing emotion to other people. Since among these items, there seemed no direct relationship to each other and neither to the previous twenty-one categories, it was identified as miscellaneous. On the other hand, category twenty three, identified as "miscellaneous for males" was all male related issues, including such items as government and politics, sleeping in the morning, having a party, what for dinner, way of camping, use of fireworks, trivia and teasing.

Discussion

The preceeding opinion discrepancies were organized into six super-categories based on their patterns of frequency distribution within and between generations. As given in Table 3 each entry represents the proportion conflicting item to the entire elicited responses within each sex/generation group. Their relative differences between groups would therefore indicate the relative dominance of an issue with respect to separate subject group domains of the so-called generation gaps. The first super-category contained five "old generational higher responses". They seemed to characterize the traditional expectations of parents from their children — having promising future and also being a cooperative and hard working member in the family. This super-category accounted for about 40% of the entire discrepancy domain for the parent group. On the other hand, both male and female students perceived them less important.

The second super-category represented the young generation higher issues, including the categories of curfew, independent living, double standards, and privilege and privacy. In contrast to the family orientation in super-category 1,

Table 3
Summary of Proportional Differences
in Opinion Responses

Category	Proportion		
	Male Students	Female Students	Parents
I. Old generation higher issues			
2. School grades and future goals	8.09	9.23	11.02*
4. Responsibilities at home	4.85	4.61	8.97*
7. Rock music	4.04	4.61	7.75*
9. Telephone	2.83	3.07	6.12*
13. Neatness of bedroom	3.23	2.56	5.71*
Sum	(23.04)	(24.00)	(39.57)
II. Young generation higher issues			
5. Curfew	7.69	6.15	4.08*
14. Independent living	4.04	4.61	2.85*
20. Double standards	2.42	2.05	0.81*
21. Privilege and privacy	2.41	2.05	0.81*
Sum	(16.56)	(14.86)	(8.55)
III. Female student higher issues			
22. Miscellaneous (Female)	—	8.20*	—
16. Showing respect to authority	1.61	6.15*	2.04
18. Discussion all issues	1.21	6.15*	1.22

8. Parents consultation on spending money	3.23	5.64*	4.08
Sum	(6.05)	(26.14)	(7.34)

IV. Female student lower issues

1. Restriction on sports and activities	11.33	8.22*	11.02
12. Going steady	4.45	3.07*	4.08
15. Dressing	4.04	2.05*	4.08
Sum	(19.82)	(13.34)	(19.18)

V. Cross sex and cross generational differences

3. Dating and sex education	7.28*	10.76*	3.26
10. Owning or driving a car	4.04*	2.05	5.71*
11. Drinking	4.45*	1.02	6.12*
17. Hair style	5.26*	—	2.85*
23. Miscellaneous (Male)	5.26	—	—
Sum	(26.29)	(13.83)	(17.94)

VI. Similar response patterns

6. Religion	5.66	5.64	5.71
19. Drug, smoking and gambling	2.42	2.05	1.63
Sum	(8.08)	(7.69)	(7.34)

Total Percent	(99.84)	(99.86)	(99.92)
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*Salient issues.

this seemed to suggest the desirability of self realization among youth. The third super-category was female student specific with consistently higher proportions. It included issues relating to the current progress of woman's equality in family and societal functions. The fourth super-category was also female specific, but with lower proportions. This included restriction on sports and activities, going steady, and dressing. The higher proportions for male students and parents in this super-category may be mainly due to the relatively more vulnerable development for teenage males than for teenage females.

The fifth super-category reflected opinion discrepancies not only between but also within generations. Therefore, dating and sex education was the most conflictual for female students. Some female students indicated that many of their parents permitted the dating only under various restricted conditions which may not easily be followed. For example, some parents required their daughters to call back home every half an hour during the entire dating period.

Drinking and driving a car were more concerned by parents than by children. However, within the younger generation, they were generally less problematic among females. Hair style and the male miscellaneous items were uniquely high for male students. The last super-category with no difference among all three groups was related to religion, drug, smoking and gambling behaviors. The drug issue which was usually considered as one of the major problems among youth was not reported as highly conflictual. According to the school counsellor, this may be due to the fact that most students in the present study do not have drug use experience.

Since the purpose of the present elicitation of opinion discrepancies was to identify salient areas of issues for construction of semantic differential ratings in Chapter III, category 1 to 18 which have consistent pattern of inter- and intra-generational disagreements will only be used. Therefore, categories 19 through 23 with minor frequencies reported will not be pursued further in later comparisons.

Notes

76. *Ibid.*

CHAPTER III

OPINION DIFFERENCES BETWEEN STUDENTS AND THEIR PARENTS

In this chapter, those salient opinions from Chapter II which represented the most important generation gaps were used to define the concept domain of the present opinion differential study. Standard semantic differential bipolar scales were also constructed as the measurement tools for rating these concepts by the samples of the same (male and female) students populations and their parents. This resulted in four (i.e., two sexes by two generatoions) three-mode semantic differential ratings of concepts by scales by subjects. Factor analytic techniques were then employed on each data matrix for intra- and inter-generational comparisons of semantic meaning systems and patterns of conflicting opinions.

Selection of Areas of Conflictual Opinions and Semantic Differential Scales

Based on Chapter II, a total of 18 statements which presumably represent all common conflictual areas of opinions between generations were prepared as given in Table 4, and used to define the usual semantic differential concept domain for both elicitation of bipolar scales and standard semantic differential ratings. According to Tzeng⁷⁷ in selection of semantic differential scales, it is necessary to consider (i) their representativeness of the traits actually used by general individuals for characterization of the entire concept domain, and (ii) their frequencies with respect to the entire subject populations. These procedures will maximize the relevancy and content validity of all traits in semantic differential ratings of a given concept domain. Therefore, in the present study, a naturalistic elicitation procedure of scales was applied by asking a group of 50 students of both sexes and their parents to respond with an adjective to each of 18 statements. As a result, 162 different adjectives were collected from 45 students and 37 parents and were further subjected to the following analyses:

(1) **Salience of qualifier.** It was the overall frequency of occurrence from all subjects responding to all 18 statements. The maximal salience score equaled to the product of 18 (statements) and 82 (subjects).

(2) **Diversity.** It is defined as the association of each qualifier with the

Table 4
Eighteen Concepts of Opinion Discrepancies

-
1. Parents imposing curfew on high school students
 2. Attending church regularly for high school students
 3. High school students accepting responsibility at home
 4. Going steady for a high school student
 5. High school students dressing sloppily
 6. High school students choosing their own hair style
 7. Being free to leave home when a high school student feels he or she is independent
 8. High school students spending a long time on the telephone
 9. High school students owning or driving a car
 10. High school students drinking alcoholic beverages
 11. High school students getting good grades for future advancement
 12. Rock music
 13. Neatness of a bedroom
 14. Parent's consultation for high school students spending money
 15. Freedom from restriction for high school students on sports and activities after school
 16. Frequent open discussion on all issues between high school students and their parents
 17. High school students showing respect to authority
 18. Dating whenever the high school student wants
-

number of statements. The maximal diversity score is 18 when the same qualifier is used at least once for all statements.

(3) **Productivity (called H-index).** This index equivalent to the measure of conditional entropy in information theory (Cf., Osgood, May and Miron, 1975) and was computed for each qualifier by

$$H_j = - \sum_i^{18} P(i, j) \text{Log } P_j(i).$$

Where j stands for each qualifier, i for concept, $P(i, j)$ is the probability of the joint occurrence of concept i and qualifier j , and $P_j(i)$ is the conditional probability of qualifier j given concept i . This index indicates simultaneously a qualifier's overall frequency (salience) and diversity of occurrence in relation to other different stimuli. However, the zero H-value is obtained whenever it has a diversity score equal to 1, regardless of its total frequency. Based on this information, all qualifiers were arranged in a hierarchical order.

(4) **Qualifier independence.** In order to select a relative small number of qualifiers which would be representative of not only the most productive (high H-value) but also inter-independent opinion domain relevant traits, the *Phi* measure was calculated for each qualifier against every other qualifier having a lower H-value in the productivity-ordered list. This statistics is to index quasi-synonymity among qualifiers — that is, qualifiers having high *positive Phi* value with its preceeding qualifier in the list will be considered as functionally the same and thus redundant. Based on a .601 rejection level of *Phi* (i.e., for one tailed test at the .05 significant level). 40 qualifiers having the highest H-rank and most independence from each other (with lower *phi*'s) were retained. These qualifiers presumably represent the exhaustive, important opinion domain relevant traits actually used by the present student and parent populations. In order to construct the standard semantic differential bipolar-scales from these qualifiers, ten native English speaking individuals with at least high school education were then asked to respond the best opposite words (adjectives) for each qualifier. The opposite which received a clear majority (at least 70%) of agreement for the qualifier was then taken as a semantic differential scale item. Since some qualifiers elicited one another as opposites (e.g., *usual/unusual*, *predictable/unpredictable*) and some qualifiers could not elicited be agreed-upon opposites, the original list of 40 qualifiers was reduced to 26 semantic differential bipolar pairs. Furthermore, in order to detect the affective conotation about the present opinion

Table 5

Twenty Nine Semantic Differential Scales

1. bad/good ^a	16. dangerous/safe
2. wrong/right ^a	17. flexible/rigid
3. strong/weak ^a	18. unreasonable/reasonable
4. powerful/powerless ^a	19. destructive/constructive
5. slow/fast ^a	20. dirty/clean
6. noisy/quiet ^a	21. tolerant/intolerant
7. active/passive	22. self-confident/insecure
8. careful/careless	23. necessary/unnecessary
9. beautiful/ugly	24. relaxed/tense
10. rational/irrational	25. light/heavy
11. naive/sophisticated	26. immoral/moral
12. unpleasant/pleasant	27. unpredictable/predictable
13. disreputable/reputable	28. clever/stupid
14. unimportant/important	29. artificial/natural
15. usual/unusual	

^aOsgood's cross-cultural E-P-A markers.

domain, Osgood's markers for the cross-cultural common Evaluation, Potency, and Activity dimensions also included (two for each dimension, but three markers were already elicited). The final selected list of the 29 scales, in Table 5, was therefore used in the later semantic differential ratings.

Subjects

High school students of both sexes in Glenbrook South High School were defined as the student population of the present research. Fifteen students were randomly sampled based on their school identification numbers across both males and females in four years. This accounted to a total sample of 120 students, half males and half females. Parents (preferably, of the same sex) of the selected students were also requested to participate in this study. It should be noted that since the school cite is a suburban community of Chicage, most students have upper middle-class, white ethnic background.

Procedures

Data were collected by means of a questionnaire of three parts. As given in Appendix B, the first part was to solicit demographic information. For the student group of both sexes, this part consisted of six items, including sex, age, year in school, personal perception about the family income in the region they live, personal feelings as to which parent has influenced student's opinion most, and the student's birth rank. For the parent group, this part consisted of both parents age, relative income level, educational background, marital status, and which parent has influenced student's opinion most.

The second part was standard semantic differential ratings of the 18 conflicting opinions against the 29 bipolar scales with each concept printed at the top of a page and all 29 seven-step bipolar scales randomly ordered with respect to both scale sequences and two poles at the bottom. All subjects were informed of the nature of the survey and did the ratings at home following the same printed instructions. In order to obtain full cooperation, the confidentiality and anonymity of their responses were assured by eliminating use of names on the questionnaire. However, within each family, their family pairs were given an identical code number. Follow-up requests were also made by telephone to increase response rate.

Subject Demographic Information

Among all 120 family pairs of subjects sampled, 88 questionnaires were returned from 47 male students and 41 females. All parents' questionnaires of these students were also collected. Among them, for the parents of male students group, 29 were from fathers and 18 from mothers; for the parents of female students group, 33 from mothers and 8 from fathers. The marital status of all parents, as given in Table 6, indicated that over 92% of parents are presently married and 90% of them belong to students' natural parents. Only 4% were divorced and 3% being either widowed or separated. The ages of these parents were in the range of 31 to 70 with the majority of parents (over 90%) in the range of 36 to 55.

The number of students in each school year and their age distribution are given in Table 7. It is clear that the present sample of students consisted of individuals aged from 14 to 18 with rather even proportions of numbers with respect to both their school years and ages. As to the information of students' birth rank, the average number of children in all families were 4 for the male student group, and 3.53 for the female group. The median of children size was 3 for both sex groups. The average of students' birth ranks were 2.42 (with median = 1) and 2.02 (median = 1) for the two groups respectively.

Table 8 presented the contingency distribution of both students and parents responses to the question "who has influenced students' opinions most". It is interesting to note that among male students, fathers were reported to have more influential power, but on the contrary, among female students, mothers to be more influential. In general, both male and female students agreed on that both parents did not have equal influences on their opinions. However, parents' response were not consistent with such reports. Among parents of male students, influences were reported to be somewhat equal between father or mother alone, or both. The joint distribution of both students and parents responses were further tested by a chi-square with the null hypothesis that the conditional probability of each cell would not be predictable from their respective rows or columns. However, the results of significance tests ($X^2 = 9.811$ and 13.56 for both male and female students groups) indicated high predictabilities for both groups.

Table 9 presented a summary contingency table of two generational responses on the topic of family income in the region where they lived. The relationships between both generational responses were high for both sex groups (by chi-square test with $P < .001$), indicating consistent perceptions of two

Table 6

Martial Status of parents*

Status	Parents of Male Students				Parents of Female Students				Total	(%)
	FR.	SM.	JR.	SR.	FR.	SM.	JR.	SR.		
	FR.	SM.	JR.	SR.	FR.	SM.	JR.	SR.		
Married	11	11	10	10	7	12	11	7	79	90
Divorced	1		1			2			4	04
Widowed				2					2	02
Separated								1	1	01
Re-married	—	—	—	<u>1</u>	—	<u>1</u>	—	—	<u>2</u>	<u>03</u>
Total	12	11	11	13	7	15	11	8	88	100

*FR = Freshman; SM = Sophomore; JR = Junior; SR = Senior.

Table 7
Age of Students

Age	Male Students				Female Students			
	FR.	SM.	JR.	SR.	FR.	SM.	JR.	SR.
14	7				2	1		10
15	3	4			5	2		1
16	1	7	4	1		9	4	
17			7	9		2	8	3
18				3				4
Total	11	11	11	13	7	14	12	8

Table 8
Who Has Influenced Students' Opinion Most

Responses of Parents	Responses of Male Students				Responses of Parents	Responses of Female Students			
	F*	M	B	Total		F	M	B	Total
F	14	3	—	17	F	7	1	1	9
M	4	9	—	13	M	5	21	1	27
B	10	5	2	17	B	1	4	—	5
Total	28	17	2	47	Total	13	26	2	41

*F = Father
M = Mother
B = Both

Concept mode:

1. Single concept: DRESSING SLOPPILY, FREE TO LEAVE HOME
2. Concept factor: "IDEAL YOUTH SOCIAL BEHAVIORS"

Group of subjects:

1. Male students, female students
 2. Parents of male students, Parents of female students.
-

Based on relative magnitudes of successive roots differences, the numbers of factors retained for scales, concepts, and subjects respectively are five, four, and three for the male student group, six, four, and three for the female student group, five, five, and three for parents group of male students, and six, five, and five for the parents group of female students. These factors accounted for between 55% to 80% of their respective total sums of squares.

Male students (M-S).

Scale Factors (M-S). The salient scales and loadings from Tzeng's⁷⁸ rotation scheme are given in Table 11(A). The first factor is led by two *Evaluation* scales *good* and *right*, and followed by other socially desirable traits, including *necessary*, *reasonable*, *pleasant*, *important*, *constructive*, *rational*, *moral* and *safe*. The second factor, led by two Osgood's pan-cultural *Potency* markers *strong* and *powerful* along with *active*, *heavy*, *self-confident*, *flexible*, *reputable*, *usual* and *sophisticated*, can be defined as a Potency factor. The third factor reflects the characteristics of behavioral patterns among the contemporary younger

generations about their family's socio-economic levels.

Table 9
Perception of Income

		Responses of Male Students						Responses of Female Students			
Responses of Parents		AA*	A	BA	Total	Responses of Parents		AA	A	BA	Total
Responses of Parents	AA	13	4		17	Responses of Parents	AA	14	2		16
	A	4	24		28		A	3	17	1	21
	BA		1	1	2		BA		2	2	4
Total		17	29	1	47	Total		17	21	3	41

*AA = Above average

A = Average

BA = Below average

Indigenous Group Factor Analyses of Concepts and Scales

The semantic differential ratings* of 18 opinion concepts against 29 scales in the present study resulted in four three-mode (concepts by scales by individuals) data matrices from two student groups of both sexes and their parents. For each group, three-mode factor analyses procedure were applied to its raw data matrix independently. For all four groups, the first 15 roots from the principal-components solutions on the cross-product matrices of scale, concept, and subjects matrices (each was computed across the other two modes) and their percentages of the total sums of squares accounted for are shown in Table 10.

*From here on, the examples of general reference of typing are as follows:

Scale mode:

1. Single scale: *good, bad, strong, . . .* or *good/bad*.
2. Semantic scale factors:

Evaluation, Potency, Activity, Morality

Table 10
First Fifteen Latent Roots of Cross-product Matrices

Root	Scale Mode		Concept Mode		Subject Mode ^e	
	Root ^a	% ^b	Root	%	Root	%
Male Students						
1.	354671	52.87	254885	37.99	240552	35.86
2.	29643	4.81	70810	10.56	47362	7.06
3.	25893	3.86	35645	5.31	30470 ^c	4.54
4.	24578	3.66	33401 ^c	4.97	26196	3.90
5.	19976 ^c	2.97	30698	4.57	24854	3.70
6.	17085	2.54	28427	4.24	20428	3.04
7.	16499	2.45	26236	3.91	18854	2.81
8.	15508	2.31	23588	3.51	16480	2.45
9.	14589	2.17	21906	3.26	15546	2.31
10.	11703	1.74	20300	3.02	14405	2.14
11.	11635	1.73	18765	2.79	12494	1.86
12.	11033	1.64	17487	2.60	12056	1.79
13.	9908	1.47	17029	2.53	11560	1.72
14.	9163	1.37	15436	2.50	10271	1.53
15.	8884	1.32	15166	2.26	9627	1.43
Total ^d	670780	100.00	670780	100.00	670780	100.00

Table 10 (Continued)

Root	Scale Mode		Concept Mode		Subject Mode	
	Root	%	Root	%	Root	%
Female Students						
1.	375922	53.30	290446	41.18	297392	42.17
2.	38175	5.41	73739	10.45	40204	5.70
3.	31231	4.42	40355	5.72	30005 ^c	4.25
4.	27706	3.92	37406 ^c	5.30	26450	3.75
5.	20320	2.88	30921	4.38	24869	3.52
6.	17390 ^c	2.46	28314	4.01	19876	2.81
7.	15467	2.19	23384	3.31	18255	2.58
8.	14529	2.06	22556	3.19	16597	2.35
9.	12602	1.78	20076	2.84	15572	2.20
10.	11593	1.64	19495	2.76	15493	2.19
11.	11417	1.61	18541	2.62	14524	2.05
12.	11034	1.56	18380	2.60	13091	1.85
13.	10488	1.48	15863	2.24	12601	1.78
14.	9729	1.37	15097	2.14	11897	1.68
15.	9457	1.34	14252	2.02	11547	1.63
	705220	100.00	705220	100.00	705220	100.00

Table 10 (Continued)

Root	Scale Mode		Concept Mode		Subject Mode	
	Root	%	Root	%	Root	%
Parents of Male Students						
1.	361386	58.49	312631	50.60	314581	50.91
2.	35104	5.68	57624	9.32	26479	4.28
3.	22735	3.67	33584	5.43	25310 ^c	4.09 ^c
4.	19568	3.16	25361	4.10	18485	2.99
5.	17731 ^c	2.87 ^c	23809 ^c	3.85	16198	2.62
6.	13376	2.16	18777	3.03	15249	2.46
7.	12438	2.01	18013	2.91	12313	1.99
8.	10801	1.74	15782	2.55	11022	1.78
9.	10182	1.64	14787	2.39	10642	1.72
10.	9345	1.51	14051	2.27	10435	1.68
11.	9000	1.45	12594	2.03	9019	1.45
12.	8051	1.30	11988	1.94	8012	1.29
13.	7795	1.26	11272	1.82	7967	1.28
14.	7424	1.20	10534	1.70	7762	1.25
15.	6992	1.13	10045	1.62	7460	1.20
	617840	100.00	617840	100.00	617840	100.00

Table 10 (Continued)

Root	Scale Mode		Concept Mode		Subject Mode	
	Roots	%	Roots	%	Roots	%
Parents of Female Students						
1.	367799	59.38	306643	49.50	323502	52.22
2.	35217	5.68	63035	10.17	34063	5.49
3.	24709	3.98	32049	5.17	21392	3.45
4.	17542	2.83	25741	4.15	19253	3.10
5.	15762	2.54	23431	3.78 ^c	16634	2.68
6.	15026	2.42 ^c	20042	3.23	13809	2.22
7.	12670	2.04	18922	3.05	13684	2.20
8.	11476	1.85	17678	2.85	11123	1.79
9.	11160	1.80	15210	2.45	10891	1.75
10.	9402	1.51	14198	2.29	10295	1.66
11.	8781	1.41	13767	2.22	9962	1.60
12.	8099	1.30	12513	2.02	8717	1.40
13.	7705	1.24	11317	1.82	8367	1.35
14.	7040	1.13	10052	1.62	7710	1.24
15.	6587	1.06	9400	1.51	7520	1.21
	619400	100.00	619400	100.00	619400	100.00

Table 10 (Continued)

^aThe total numbers of roots equals 29 for the scale mode, 18 for the concept mode, 47 for male students and their parents and 41 for female students and their parents.

^b% is the ratio of root over total sum of squares.

^cCut-off point. This root and those above were retained.

^dTotal value equals sum of all possible roots.

^eFor the subject modes of the four groups, the coefficients of subject factors were not reported in this study.

generation as being *tense, noisy, important, unpredictable, heavy, dirty, dangerous, artificial, active* and *intolerant* versus *relaxed, quiet, unimportant, predictable, light, clean, safe, natural, passive, and tolerant*. This factor seems consistent with Osgood's *Activity* factor. Dimension 4 dominated by *predictable, rigid, tense, usual* and *careful*, versus *unpredictable, flexible, relaxed, unusual, careless*, apparently reflects stable versus unstable patterns of behaviors. Therefore, choosing from the left term scales, this factor is called a Predictability dimension. The last dimension seems to characterize people's type of dealing with issues or environments, being either *usual, natural, relaxed, flexible, predictable, naive*, and *careless* or *unusual, artificial, tense, rigid, unpredictable, sophisticated*, and *careful*. This factor might be dubbed a Uniqueness dimension.

Concept Factors (M-S). The salient concepts from the orthogonally (varimax) rotated concept factor structure are given in Table 11(B). The leading concepts for the first factor are as follows: DRESSING SLOPPILY, DRINKING ALCOHOL, FREE TO LEAVE HOME, LONG TIME ON TELEPHONE, versus ATTENDING CHURCH and GETTING GOOD GRADES. These concepts seem to reflect very well the current phenomena of youth culture versus their traditional behavioral pattern expected from parents. It seems quite reasonable to define it as a "CONTEMPORARY YOUTH'S LIFE PATTERN" dimension. The salient concepts for the second factor are PARENTS IMPOSING CURFEW, PARENTS CONSULTATION ON SPENDING MONEY, SHOWING RESPECT TO AUTHORITY, NEATNESS OF BEDROOM, OPEN DISCUSSION ON ALL ISSUES, ACCEPT RESPONSIBILITY AT HOME. Except for LONG TIME ON TELEPHONE and AFTER SCHOOL ACTIVITY, all are obviously related to traditional and parental expectations of youth. It may be identified as a "TRADITIONAL EXPECTATIONS OF YOUTH" dimension. The salient concepts for the third factor are NO RESTRICTION ON AFTER SCHOOL ACTIVITY and FREE TO LEAVE HOME versus CONSULTATION ON MONEY and GETTING GOOD GRADES. This factor seems to suggest the tendency of conformance with peers among youth, and it will be called a "YOUTH INDEPENDENCE" dimension. The last dimension has concepts related to popular social and school activities within the youth subculture including DATING, GETTING GOOD GRADES, ROCK MUSIC, DRIVING A CAR, HAIR STYLE, GOING STEADY, and DRINKING ALCOHOL. It may be termed as a "YOUTH'S IDEAL SOCIAL BEHAVIORS" dimension.

Salient Variables and Loadings for Male Students*

A. Scale Mode

Dimension 1		Dimension 3	
1. good/bad	.38	24. tense/relaxed	.46
2. right/wrong	.34	6. noisy/quiet	.39
23. necessary/unnecessary	.34	34. important/unimportant	.36
18. reasonable/unreasonable	.32	27. unpredictable/predictable	.27
12. pleasant/unpleasant	.29	25. heavy/light	.25
14. important/unimportant	.29	20. dirty/clean	.24
19. constructive/destructive	.27	16. dangerous/safe	.23
10. rational/irrational	.24	29. artificial/natural	.20
26. moral/immoral	.20	7. active/passive	.20
16. safe/dangerous	.19	21. intolerant/tolerant	.19
Dimension 2		Dimension 4	
3. strong/weak	.40	27. predictable/unpredictable	.69
4. powerful/powerless	.37	17. rigid/flexible	.58
7. active/passive	.32	24. tense/relaxed	.18
25. heavy/light	.32	15. usual/unusual	.18
22. self-confident/insecure	.26	8. careful/careless	.17
8. flexible/rigid	.21		
13. reputable/disreputable	.20	Dimension 5	
15. usual/unusual	.18	15. usual/unusual	.64
11. sophisticated/naive	.18	29. natural/artificial	.31

24. relaxed/tense	.29	11. naive/sophisticated	.20
17. flexible/rigid	.29	8. careless/careful	.20
27. predictable/unpredictable	.21		

B. Concept Mode

Dimension 1			
5. dressing sloppily	.54	15. after school activity	.15
10. drinking alcohol	.48	18. dating	-.17
7. free to leave home	.30	Dimension 3	
8. long time on telephone	.29	15. after school activity	.81
2. attending church	-.24	7. free to leave home	.41
11. getting good grades	-.34	14. consultation on money	-.26
		11. getting good grades	-.26
Dimension 2		Dimension 4	
1. curfew	.46	18. dating	.43
14. consultation on money	.43	11. getting good grades	.42
17. respect to authority	.36	12. rock music	.41
13. neatness of bedroom	.34	9. driving a car	.40
16. discussion all issues	.31	6. hair style	.35
8. long time on telephone	.24	4. going steady	.33
3. responsibility at home	.23	10. drinking alcohol	.15
2. attending church	.20		

* The complete statements used in the questionnaire are in Table 3. The factor loading matrix of the scale mode is given in Appendix 3.

Salient Variables and Loadings for Female Students

A. Scale Mode

Dimension 1		Dimension 3	
23. necessary/unnecessary	.33	27. unpredictable/predictable	.41
14. important/unimportant	.33	7. active/passive	.36
1. good/bad	.32	17. flexible/rigid	.34
2. right/wrong	.30	16. dangerous/safe	.23
18. reasonable/unreasonable	.29	15. usual/unusual	.23
10. rational/irrational	.25	25. heavy/light	.21
19. constructive/destructive	.24	29. artificial/natural	.19
11. sophisticated/naive	.22	12. pleasant/unpleasant	.19
12. pleasant/unpleasant	.21		
13. reputable/disreputable	.16	Dimension 4	
8. flexible/rigid	.16	15. unusual/usual	.70
28. clever/stupid	.16	27. unpredictable/predictable	.42
		7. pleasant/unpleasant	.32
		29. artificial/natural	.31
		17. flexible/rigid	.21
Dimension 2		Dimension 5	
27. natural/artificial	.48	24. relaxed/tense	.55
4. powerful/powerless	.43	17. flexible/rigid	.42
3. strong/weak	.40	29. natural/artificial	.41
17. flexible/rigid	.29	25. light/heavy	.29
25. predictable/unpredictable	.25	8. careless/careful	.25
22. self-confident/insecure	.17		
5. fast/slow	.17		
16. safe/dangerous	.17		

13. disreputable/reputable	.21	24. relaxed/tense	.30
11. naive/sophisticated	.16	23. unnecessary/necessary	.29
7. passive/active	.15	9. beautiful/ugly	.28
		20. clean/dirty	.23
		5. fast/slow	.21
Dimension 6			
14. unimportant/important	.49	11. sophisticated/naive	.19
12. pleasant/unpleasant	.35	21. tolerant/intolerant	.15
13. reputable/disreputable	.33		

B. Concept Mode

Dimension 1		Dimension 3	
5. dressing sloppily	.58	17. respect to authority	.40
14. consultation on money	.46	11. getting good grades	.35
1. curfew	.42	16. discussion all issues	.33
8. long time on telephone	.27	2. attending church	.33
10. drinking alcohol	.21	1. curfew	.31
18. dating	-.16	13. neatness of bedroom	.30
7. free to leave home	-.22	3. responsibility at home	.27
		14. consultation on money	.23
		15. after school activity	.16
Dimension 2		4. going steady	.16
10. drinking alcohol	.60	8. long time on telephone	-.16
4. going steady	.43	10. drinking alcohol	-.20
7. free to leave home	.42	5. Dressing sloppily	-.23
18. dating	.29		
9. driving a car	.17		

Dimension 4			
12. rock music	.58	18. dating	.25
6. hair style	.45	3. responsibility at home	.16
9. driving a car	.36	14. consultation on money	-.18
15. after school activity	.28		
8. long time on telephone	.26		

Female Students (F-S).

Scale factors (F-S). The salient scale factors rotated through varimax rotation scheme are given in Table 12(A). The first and most dominant factor is factor 1 which, like the male student results, is obviously an Evaluation factor with dominant scales *necessary, important, good, right, reasonable, constructive*, etc. The second factor seems to be the usual Potency factor led by *powerful, strong* along with *natural* and *flexible*. The third factor, dominated by *unpredictable, active, flexible, dangerous, usual*, seems to characterize the Activity connotation of semantic criteria. Dimension 4 is an apparent Uniqueness dimension with salient scales *unusual, pleasant, unpredictable, artificial, and flexible*. Factor 5 is dominated by scales *tense, rigid, artificial, heavy, careful, reputable, sophisticated* and *active* versus their opposites *relaxed, flexible, natural, light, careless, disreputable, naive* and *passive*. It seems to characterize one's style in dealing with the problems and environment, and thus may be called an Sophistication dimension. For the last dimension, the relationship of *unimportant* and *unnecessary* with other scales seems to make this factor intuitively incomprehensible. However, the remaining scales seem to suggest this factor representing ideal female students' popular personality natures as being *pleasant, reputable, relaxed, beautiful, clean, fast, sophisticated* and *tolerant*. Therefore, it is tentatively defined as a Reputation factor.

Concept factors (F-S). The salient concepts from the resultant rotated factor structure are given in Table 12(B). The leading concepts for the first dimension are DRESSING SLOPPILY, CONSULTATION ON MONEY, CURFEW, LONG TIME ON TELEPHONE and DRINKING. Two concepts DATING (with no time restriction) and FREE to LEAVE HOME also appears on this factor, but on the negative pole. This factor seems to characterize the behaviors which are not only consistent with the peer group behaviors (on dressing and alcohol drinking), but also with parental restrictions or general standard of family life. This factor will therefore be called a "CULTURAL ADAPTABILITY" dimension. The second factor, like the first dimension of male students, is related to typical independent-seeking behavioral patterns among youth – DRINKING ALCOHOL, FREE TO LEAVE HOME, NO RESTRICTION ON DATING, etc. It may be called a "CONTEMPORARY YOUTH'S LIFE PATTERN" dimension. Dimension 3, like dimension 2 of male students has dominant concepts related to traditional behavior standards or expectations of children at home, including RESPECT TO AUTHORITY,

GETTING GOOD GRADES, DISCUSSION ALL ISSUES, ATTENDING CHURCH, CURFEW, NEATNESS OF BEDROOM, RESPONSIBILITY AT HOME, CONSULTATION ON MONEY. In contrast to such conceptions as DRINKING ALCOHOL and DRESSING SLOPPILY, this dimension can be termed as a "TRADITIONAL EXPECTATIONS OF YOUTH" dimension. Dimension 4 is similar to the last dimension of male group with dominant concepts of ROCK MUSIC, HAIR STYLE, DRIVING A CAR, NO RESTRICTION OF AFTER SCHOOL ACTIVITY, LONG TIME ON TELEPHONE and DATING. It will also be termed as a "YOUTH'S IDEAL SOCIAL BEHAVIORS" behavior.

Parents of Male Students (P-M)

Scale factor (P-M). The salient scale factors and loadings are given in Table 13(A). Like both male and female students, the first and most dominant factor is factor 1 with clear Evaluation connotation as reflected by scales *good, right, reasonable, necessary, rational, constructive, pleasant, safe, careful, and reputable*. The second factor seems to be Osgood's Potency factor led by *predictable, powerful, strong, self-confident, moral, reputable, important and careful*. The appearance of *active* and *fast* would seem to suggest the dynamism nature of this factor. The third factor is dominated by scales *flexible, tolerant, relaxed, unusual, beautiful, self-confident, clean, clever, quiet, and pleasant*. It seems to characterize individual's acceptability and positive attitude toward social environment. It may be called a Flexibility dimension. Dimension 4 has many salient scales common to dimension 3, but it has a different flavor of energies and uniqueness. It will be dubbed as a Uniqueness dimension. The last dimension describes the adventurous nature of human behavior, including scales *important, unpredictable, active, dangerous unusual and reasonable*. It may be identified as an Adventurousness dimension.

Concept factors (P-M). The resultant concept factors and salient loadings are given in Table 13(B). Dimension 1 dominated by three concepts ATTENDING CHURCH, CURFEW, and RESPONSIBILITY AT HOME, with minor loadings from LONG TIME ON TELEPHONE and RESPECT TO AUTHORITY seems to represent a traditional good citizenship training program at home. It likes dimension 2 of male students, this factor is called a "PARENTAL CONFORMANCE" dimension. The second dimension contains concepts representing some youth's pursuit of peer group independent life. They are FREE TO LEAVE HOME, ACTIVITIES AFTER SCHOOL and NO RESTRICTION ABOUT THE

Table 13
Salient Variables and Loadings for Parents of Male Students

A. Scale Mode			
Dimension 1			
1. good/bad	.37	9. beautiful/ugly	.16
2. right/wrong	.41	5. fast/slow	.16
18. reasonable/unreasonable	.38	17. rigid/flexible	.16
23. necessary/unnecessary	.38	Dimension 3	
10. rational/irrational	.31	17. rigid/flexible	.49
19. constructive/destructive	.29	21. intolerant/tolerant	.39
12. pleasant/unpleasant	.22	24. tense/relaxed	.39
16. safe/dangerous	.17	15. usual/unusual	.28
8. careful/careless	.18	9. ugly/beautiful	.22
13. reputable/disreputable	.16	22. insecure/self-confident	.21
Dimension 2		20. dirty/clean	.21
27. predictable/unpredictable	.43	28. stupid/clever	.18
7. active/passive	.39	6. noisy/quite	.17
4. powerful/powerless	.34	12. unpleasant/pleasant	.16
3. strong/weak	.28	Dimension 4	
22. self-confident/insecure	.27	15. usual/unusual	.64
26. moral/immoral	.28	17. flexible/rigid	.43
13. reputable/disreputable	.19	29. natural/artificial	.29
14. important/unimportant	.18	8. careless/careful	.25
8. careful/careless	.17	9. ugly/beautiful	.17

12. unpleasant/pleasant	.16	7. active/passive	.26
Dimension 5		16. dangerous/safe	.24
14. important/unimportant	.74	15. unusual/usual	.22
		18. reasonable/unreasonable	.21

Table 13 (Continued)

B. Concept Mode			
Dimension 1		15. activities after school	-.42
2. attending church	.58	Dimension 4	
1. curfew	.45	13. neatness of bedroom	.46
3. responsibility at home	.45	16. discussion all issues	.45
8. long time on telephone	.19	11. getting good grades	.41
17. respect to authority	.18	14. consultation on money	.37
12. rock music	-.32	17. respect to authority	.34
Dimension 2		12. rock music	.19
7. free to leave home	.59	5. dressing sloppily	.26
15. activities after school	.53	Dimension 5	
18. dating	.52	12. rock music	.56
Dimension 3		9. driving a car	.47
10. drinking alcohol	.76	6. hair style	.37
7. free to leave home	.34	5. dressing sloppily	.33
5. dressing sloppily	.22	8. long time on telephone	.27
8. long time on telephone	.21	4. going steady	.23
		15. activities after school	.20

TIME OF DATING. Like dimension 3 of the male student group it may be identified as a "YOUTH INDEPENDENCE" dimension. Dimension 3 emphasizes contemporary young generational behaviors, including DRINKING ALCOHOL, FREE TO LEAVE HOME, DRESSING SLOPPILY, LONG TIME ON TELEPHONE, and ACTIVITIES AFTER SCHOOL. Like dimension 1 of the male student group, this factor is called a "CONTEMPORARY YOUTH BEHAVIOR PATTERN" dimension. Dimension 4 emphasizes the characteristics of traditional roles or expectations of youth in social and family environments. It may be called a "TRADITIONAL EXPECTATION OF YOUTH" dimension. The last dimension, dominated by concepts ROCK MUSIC, DRIVING A CAR, HAIR STYLE, DRESSING SLOPPILY, LONG TIME ON TELEPHONE, GOING STEADY, and ACTIVITIES AFTER SCHOOL, clearly represents a "YOUTH'S IDEAL SOCIAL BEHAVIOR" dimension.

Parents of Female Students (P-F)

Scale factors (P-F). The salient factor loadings of scales are given in Table 14(A). Dimension 1 is the usual Evaluation dimension with leading scales *good, right, reasonable, constructive, important, safe, rational, and necessary*. The second factor also recapture Osgood's Potency dimension with scales *strong, powerful, active, self-confident, careful, beautiful, clean, moral, sophisticated, fast, and predictable*. The third dimension, dominated by *noisy* but *immoral*, or *passive* but *moral* connotations — *noisy, usual, unpredictable, active, dirty, immoral, disreputable, and dangerous* versus *quiet, unusual, predictable, passive, clean, moral, reputable, and safe*. This factor may be identified as an Active-Immorality dimension. The fourth dimension is dominated by *usual* versus *unusual*, along with *flexible, relaxed, tolerant, reasonable, predictable, and natural* on the left, and *rigid, tense, intolerant, unreasonable, unpredictable, and artificial* on the right. Like for other groups, this factor is called a Uniqueness dimension. The last dimension led by the scales *predictable, rigid, passive, ugly, intolerant, usual, unimportant, and unpleasant* versus their opposites *unpredictable, flexible, active, beautiful, tolerant, unusual, unimportant, and pleasant*. This dimension seems to underline the nature of behavioral predictability, and it will be called a Predictability dimension. The last dimension is intuitively very difficult to interpret because of the coexistence of *unimportant, powerless and immoral* along with *sophisticated, clever, careful, pleasant and predictable*. This factor may represent specific interaction concept and subject factors in

A. Scale Mode

Dimension 1					
1. good/bad	.40		15. usual/unusual	.38	
2. right/wrong	.39		27. unpredictable/predictable	.33	
18. reasonable/unreasonable	.37		7. active/passive	.22	
19. constructive/destructive	.26		20. dirty/clean	.22	
14. important/unimportant	.24		26. immoral/moral	.22	
16. safe/dangerous	.20		13. disreputable/reputable	.20	
10. rational/irrational	.30		16. dangerous/safe	.18	
23. necessary/unnecessary	.42		Dimension 4		
Dimension 2			15. usual/unusual	.71	
3. strong/weak	.40		17. flexible/rigid	.38	
4. powerful/powerless	.32		24. relaxed/tense	.29	
7. active/passive	.45		21. tolerant/intolerant	.22	
22. self-confident/insecure	.35		18. reasonable/unreasonable	.15	
8. careful/careless	.20		27. predictable/unpredictable	.22	
9. beautiful/ugly	.19		29. natural/artificial	.32	
20. clean/dirty	.15		Dimension 5		
26. moral/immoral	.15		27. predictable/unpredictable	.65	
11. naive/sophisticated	-.15		17. rigid/flexible	.43	
5. slow/fast	-.19		7. active/passive	.24	
27. unpredictable/predictable	-.25		9. beautiful/ugly	.21	
Dimension 3			21. tolerant/intolerant	.20	
6. noisy/quiet	.37		15. usual/unusual	.15	
			14. pleasant/unpleasant	.20	

Dimension 6		8. careful/careless	.28
		12. pleasant/unpleasant	.23
14. unimportant/important	.72	27. unpredictable/predictable	.19
11. sophisticated/naive	.32	4. powerless/powerful	.18
28. clever/stupid	.29	26. immoral/moral	.17

Table 14 (Continued)

B. Concept Mode			
Dimension 1		1. curfew	.26
18. dating	.41	10. drinking alcohol	.15
9. driving a car	.40	13. neatness of bedroom	-.27
15. activity after school	.38	Dimension 4	
12. rock music	.37	7. free to leave home	.83
4. going steady	.35	2. attending church	.38
10. drinking alcohol	.20	1. curfew	.21
11. getting good grades	.20	18. dating	.20
6. hair style	.17	Dimension 5	
1. curfew	-.21	11. getting good grades	.38
2. attending church	-.25	16. discussion all issues	.38
Dimension 2		17. respect to authority	.36
10. drinking alcohol	.70	3. responsibility at home	.31
9. driving a car	.16	13. neatness of a bedroom	.29
6. hair style	-.16	14. consultation on money	.28
15. activities after school	-.59	1. curfew	.27
Dimension 3		2. attending church	.26
5. dressing sloppily	.60		

semantic differential ratings. Choosing from the right hand poles, this factor may be tentatively identified as an Important-but-Naïve dimension.

Concept factors (P-F). The resultant concept factors are given in Table 14(B). Dimension 1 consists of usual young female students' daily activities and life patterns, including DATING, DRIVING A CAR, ACTIVITY AFTER SCHOOL, ROCK MUSIC, GOING STEADY, DRINKING ALCOHOL, GETTING GOOD GRADES, and HAIR STYLE. The negative pole of this dimension, on the other hand, is dominated by traditional parental efforts on children development-IMPOSING CURFEW and ATTENDING CHURCH. This factor like Dimension 1 of students' parent group may be called "YOUTH'S IDEAL SOCIAL BEHAVIOR" dimension. Dimension 2 is dominated by four concepts - DRINKING ALCOHOL and DRIVING A CAR, on the one hand, and HAIR STYLE and AFTER SCHOOL ACTIVITIES on the other. It seems to emphasize the individual's participation in contemporary youth societal functions. It is called the "CONTEMPORARY YOUTH LIFE PATTERN" dimension following dimension 2 of female students. Dimension 3 seems to reflect a bipolar characteristics of casual versus clean dimension as suggested by the leading concepts - DRESSING SLOPPILY, LONG TIME ON TELEPHONE, CURFEW, DRINKING ALCOHOL versus NEATNESS OF BEDROOM. This dimension, though in some sense similar to dimension 1 of female students, may be defined as a Neatness dimension. Dimension 4 is led by FREE TO LEAVE HOME WHEN FEMALE STUDENTS ARE INDEPENDENT, and followed by ATTENDING CHURCH, CURFEW and DATING. These concepts are close to family activity and home orientation. This factor is therefore termed as a "FAMILY ORIENTATION" dimension. The last dimension, dominated by GETTING GOOD GRADES, DISCUSSION ALL ISSUES, RESPECT TO AUTHORITY, RESPONSIBILITY AT HOME, NEATNESS OF A BEDROOM, CONSULTATION ON MONEY, CURFEW, ATTENDING CHURCH, DRIVING A CAR, with DATING, on the opposite, seems to emphasize all traditional roles and behaviors expected from their parents. In consistent with the same naming for other three groups, the present dimension may be called as a "TRADITIONAL EXPECTATIONS OF YOUTH" dimension.

Cross-Group and Cross-Generational Factor Comparisons

Based on the preceeding four indigenous group factor analyses, their results of factorial structures on both the scale and concept modes were compared by

Tucker's⁷⁹ *factoria* coefficients of congruence. This will not only provide a non-arbitrary guide to summarize all "non-redundant" semantic factors and conceptual structures of reported opinion discrepancies between and within generations, but also serve as a basis for examination of possible inter- and intra-generational similarities and differences in these structural characteristics.

Scale Factor Similarities

In the scale mode, factors having high coefficients of congruence (i.e., in the range of 47 to 97 with median equal to 81) were identified in Table 15. In general, there emerge two types of semantic criteria: one consists of cross-generational common factors which appeared to be common to both sexes and both generations. These include Osgood's three affective Evaluation, Potency, and Activity dimensions, and two denotative dimensions — Uniqueness and Predictability. The other type represents generation/sex factors: Sophistication and Reputation for Female Students, Adventurousness for Parents of Male Students, and Important-but-Naive for Parents of Female Students. The present solutions suggest that individual in this study tended to use the same psychosemantic criteria in perceiving issues of opinions. However, it should be noted that the results of their perceptions may not necessarily be the same.

Table 15
Cross-Generational Scale Factors

Dimensions	Students		Parents of	
	Male	Female	Males	Females
Evaluation	I	I	I	I
Potency	II	II	II	II
Activity	III	III		III*
Uniqueness	V	IV	IV	IV
Predictability	IV		III	V
Sophistication		V		
Reputation		VI		
Adventurousness			V	
Important-But-Naive				VI

*But here "Activity-Immorality".

Concept Factor Similarities

Intra- and inter-generational concept factor similarities were computed among all dimensions of the four groups. The resultant concept factors were presented in Table 16. Each common factor has a coefficient of congruence over .54 with the same factor of other groups. In general, three types of factorial characteristics emerge: (1) Cross-sex and cross-generational common factors, including "CONTEMPORARY YOUTH'S LIFE PATTERN", "YOUTH IDEAL SOCIAL BEHAVIORS", and "TRADITIONAL EXPECTATIONS OF YOUTH": (2) Sex specific factors which are common to a given group of students and their parents, including "YOUTH INDEPENDENCE" (common to male students and their parents), and "CULTURAL ADOPTABILITY" (common to female students and their parents); (3) Sex/generation specific factor — "FAMILY ORIENTATION" being specific to parents of female students.

Discussion

As stated in Chapter I, the processes of human perceptions and judgments involve simultaneously three major variables — individuals, semantic criteria, and concept factors. Individual or group similarities in the structural organization of semantic criteria and concept factors will not necessarily reflect the similarities of the functional usage of psychosemantic criteria on concept factors. This suggests that it will be helpful if one can investigate the *interactions* of three way factors of individuals, concepts, and scales modes in a research domain. For the present study, in order to assess this possibility, Tucker's⁸⁰ three-mode factor analytic technique was applied to the data of male students.

Subject factors of male students. Three retained dimensions of inter-subject cross-products account for about 50 percent of the total sums of squares. Rotated subject coefficient matrix indicated that school years do not well contribute to the pattern of subject response homogeneity. As given in Table 17 dimension 1 is dominated by ten students and dimension 2 by other ten students of all four school years. Dimension 3, however, is dominated by more than 25 other students, among them most are juniors or seniors. The similarities and differences among these three subject types in the interactions of concept factors with semantic criteria are revealed in the core matrix.

Inner core matrix of male students. Table 18 presents the inner core matrix

Table 16
Cross-generational Concept Factors

Factors	Students		Parents of	
	Male	Female	Males	Females
1. CONTEMPORARY YOUTH'S LIFE PATTERN	I	II	III	II
2. YOUTH IDEAL SOCIAL BEHAVIOR	IV	IV	V	I
3. TRADITIONAL EXPEC- TATIONS OF YOUTH	II	III	IV	V
4. YOUTH INDEPENDENCE	III		II	
5. CULTURAL ADAPTABILITY		I		III
6. PARENTAL CONFORMANCE			I	
7. FAMILY ORIENTATION				IV

Table 17
Salient Subject Factor Coefficients

Subjects	Coefficients	Subjects	Coefficients
Dimension 1		Dimension 2	
31	.61	45	.46
33	.33	14	.42
37	.26	6	.31
45	.17	4	.25
34	.15	15	.23
39	.13	7	.19
46	-.15	5	.17
41	-.21	17	.16
27	-.24	32	.14
47	-.36	33	-.24
Dimension 3			
39	.35	40	.17
33	.26	34	.17
24	.25	19	.17
12	.21	23	.16
47	.21	41	.15
1	.21	35	.15
3	.20	9	.15
29	.18	37	.14
21	.18	31	.14
40	.17	44	.13
34	.17	20	.13
		46	.12
		18	.12
		45	-.27

Table 18
Rotated Core Matrix For Male Students

Scale factors	Subject factors			Concept factors
	1	2	3	
Evaluation	27.25	23.93	25.60	CONTEMPORARY YOUTH LIFE PATTERN
	-50.34	-26.80	-51.21	TRADITIONAL EXPECTATIONS OF YOUTH
	8.54	-17.99	- 6.93	YOUTH INDEPENDENCE
	4.65	-62.74	-77.34	YOUTH IDEAL SOCIAL DIMENSION
Potency	10.03	13.82	3.28	CONTEMPORARY YOUTH LIFE PATTERN
	-29.54	-19.10	-21.20	TRADITIONAL EXPECTATIONS OF YOUTH
	1.62	-12.22	- 6.26	YOUTH INDEPENDENCE
	- 6.24	-44.00	-48.04	YOUTH IDEAL SOCIAL DIMENSION
	-15.55	- 8.07	- 3.74	CONTEMPORARY YOUTH LIFE PATTERN

Activity	19.49	7.38	9.05	TRADITIONAL EXPECTATIONS OF YOUTH
	- 3.97	0.05	- 0.16	YOUTH INDEPENDENCE
	- 3.21	21.23	4.99	YOUTH IDEAL SOCIAL DIMENSION
Predictability	3.92	9.60	11.88	CONTEMPORARY YOUTH LIFE PATTERN
	- 5.77	- 8.42	- 4.11	TRADITIONAL EXPECTATIONS OF YOUTH
	- 0.24	1.33	6.93	YOUTH INDEPENDENCE
Uniqueness	- 2.79	- 5.09	- 0.93	YOUTH IDEAL SOCIAL DIMENSION
	1.72	- 5.61	-18.40	CONTEMPORARY YOUTH LIFE PATTERN
	- 6.86	- 5.03	- 7.16	TRADITIONAL EXPECTATIONS OF YOUTH
	1.21	- 3.13	- 2.50	YOUTH INDEPENDENCE
	- 2.61	- 6.86	-17.38	YOUTH IDEAL SOCIAL DIMENSION

which contains the loadings of three-mode factors. Entries can be defined as the hypothetical judgments of three idealized individuals on the four concept factors against the five semantic criterion dimensions. It is interesting to note that three subjects appear to be more similar than different in the pattern of their judgments' of concept factors against semantic criteria. This is expected to be the case since the first dimension — accounting for over 35 percent of the total sum of squares in the unrotated subject coefficient matrix — is a representation of the average subjects (group mean) with high loadings from all individuals. In any case, some consistent patterns of "judgments" in the rotated solution appear interesting. For example, except for the Uniqueness dimension, concept factors "CONTEMPORARY YOUTH'S LIFE PATTERN" and "TRADITIONAL EXPECTATIONS OF YOUTH" always have different size. That is, DRESSING SLOPPILY, FREE TO LEAVE HOME and DRINKING ALCOHOL (in the "CONTEMPORARY YOUTH'S LIFE PATTERN" dimension) are always *better* (E+), stronger (P+), more *predictable* (Predictability+) but less *active* (A-) as compared with PARENTS IMPOSING CURFEW, PARENTS CONSULTATION ON SPENDING MONEY, SHOWING RESPECT TO AUTHORITY and NEATNESS OF A BEDROOM (in the "TRADITIONAL EXPECTATIONS OF YOUTH" dimension) which are considered as *bad* (E-), *weak* (P-), unpredictable (Predictability-) but very *active* (A+). Other comparisons can also be made from this Table.

Notes

77. Tzeng, *Application of Semantic Differential technique*.
78. Tzeng, *Differentiation of Affective and Denotative Meaning Systems in Personality ratings*.
79. Harman, *Modern Factor Analysis*.
80. Tucker, *Three-mode Factor Analysis*.

CHAPTER IV

DYNAMICS OF GENERATIONAL GAPS

The purpose of this chapter is to investigate the possible dynamics of generation gaps between high school students and their parents. Sixteen unidimensional variables were constructed to cover reported sources of psychological and socio-cultural correlates which contribute the so-called generation gaps. Ratings on these measures from high school students of both sexes and their parents were subjected to analytic treatments of various uni- and multivariate statistic techniques. The potential dynamics of generation gaps will then be theorized from cross-sex and cross-generation comparisons of their statistical solutions.

Method

Subjects

Subjects reported in Chapter III were also used in this part of the study. They are 47 high school male students and their parents and 41 female students and their parents.

Procedures

A sixteen-item questionnaire was constructed to cover representative sources or correlates of generation gaps, based on the literature review, as reported in Chapter I, and subjective observations (the author was a high school teacher and has a daughter who was a member of the female student subject population). Each item shown in Table 19 was rated on a 7-step bipolar scale (scores from +3 to -3 with +3 to the left and -3 to the right poles). Since these items were included as part of the entire questionnaire booklet as described in Chapter III, all subjects did the ratings as a take home task.

Results and Discussion

Means of the 16 items for all four groups are presented in columns 2-5 of Table 20. A summary of the analyses of variance performed on these variables is presented in columns 6-8. Results from inter-group comparison on the group

mean ratings of nine significant variables are also presented in Table 20.

Among the nine variables with an F ratio significantly beyond the .05 level, two patterns of generational differences emerge: Students of both sexes considered rock music being more enjoyable (item 6), and also they have higher level of involvement in sports and physical activities (item 12). On the other hand, parents of both student groups considered that the general social standards of their children were higher than their children's opinions of parents standards (item 1), and when there were conflicting thoughts for youth, parents opinions should be more influential (item 11). Parents also perceived that the general social standards of their peers are better than those of their children's peers (item 2) and that their peers' opinion of them as a person were high (item 4). As to the issues on general social political system, the religious belief, and saving money for the future usage, parents gave significantly more favorable responses.

In terms of pairwise comparisons of groups mean ratings on the nine significant variables, two types of differences were observed: (1) *Within generational differences* — comparisons between two students groups (males vs females). While no significant difference is found between two parent groups, there are some differences between two student groups. That is, male students are more favorable to the political system in this country (item 7) and have higher involvement in sports and physical activities (item 12). (2) *Between generational comparisons* — comparisons of each student group with both parent groups. It is interesting to note that for both male and female students, the areas (or items) of generational differences are almost identical for within and outside the families. That is, the differences between male students and their own parents and those between male students and parents of female students are identical — male students are more enjoyable in rock music (item 6) and more active in sports and physical activities (item 12), parents of both student groups have relatively higher values on item 1 (the general social standards of their children), item 2 (the general social standards of parents' own peers), item 10 (saving money for the future as opposed to spending it now), item 11 (parents' opinions should be more influential when there are conflicting thoughts for youth), item 14 (the students' high school education). Similarly, the differences between female students and their own parents are the same as the differences between female students and the parents of male students. This includes the following items: Female students consider rock music is more enjoyable (item 6), and parents consider the political system in this country is more satisfactory

Table 19
Unidimensional Variables

-
1. The general social standards of my parents (or my child if answered by parents) are: (good vs bad)
 2. The general social standards of my peers are: (good vs bad)
 3. My own opinion of myself as a person is: (high vs low)
 4. My peers opinion of myself as a person is: (high vs low)
 5. Parents' (or students') satisfaction with me as a person is: (favorable vs unfavorable)
 6. Rock music is: (enjoyable vs unenjoyable)
 7. The political system in this country is: (satisfactory vs unsatisfactory)
 8. The so-called generation gap between parents and children in my family does: (exist vs not exist)
 9. My distance from my parents (or my children if answered by parents) in most of their opinions is: (far vs close)
 10. Saving money for the future as opposed to spending it now is: (good vs bad)
 11. In general, when there are conflicting thoughts for youth, whose opinions should be more influential: (parents vs peer group)
 12. My own level of involvement with sports and physical activities is: (high vs low).
 13. My level of boredom is: (high vs low)
 14. My (i.e., the student) high school education is: (satisfactory vs unsatisfactory)
 15. My satisfaction level of childhood in general was: (high vs low)
 16. I consider that the religious belief is: (important vs unimportant)
-

Table 20
Summary Statistics of 16 Unidimensional Variables

Variables	Mean				ANOVA			Significant t tests ^a				
	Students		Parents of		MS	Error	F	A	B	C	D	F
	Male	Female	Males	Females								
1.	1.98	2.22	2.41	2.54	2.61	0.83	3.13*	A*		C**		
2.	1.47	1.52	2.37	2.25	9.93	1.24	7.97***	A***		C***	D***	F***
3.	1.94	2.03	2.20	2.15	0.61	0.59	1.04					
4.	1.86	1.81	2.24	2.13	1.92	0.68	2.82*	A*			D*	
5.	1.79	1.91	2.00	1.98	0.42	1.30	0.32					
6.	2.60	2.40	0.30	0.54	64.84	1.75	37.04***	A***		C***	D***	F***
7.	0.16	-0.35	0.83	-0.44	17.06	3.30	5.16**		B*		D*	F*
8.	0.37	0.25	0.03	0.37	5.31	3.48	1.52					
9.	-0.51	0.75	-1.00	-1.10	3.47	2.37	1.46					
10.	1.75	2.05	2.22	2.27	2.51	0.96	2.59*	A*		C*		
11.	0.83	0.54	1.73	1.79	17.03	1.62	10.49***	A***		C**	D**	F***
12.	1.58	0.79	0.70	0.35	12.38	3.50	3.53**	A*	B*	C**		
13.	-0.95	0.92	-1.25	-1.44	2.57	3.11	0.82					
14.	1.77	2.03	2.22	2.32	2.63	1.60	1.63					
15.	1.66	1.69	1.90	1.83	0.58	1.69	0.34					
16.	1.81	1.35	2.24	2.22	7.53	2.12	3.54**				D**	F**

a Pairwise comparisons include A: Male students/Parents of Male students, B: Male students/Female students, C: Male students/Parents of Female students, D: Parents of Male students/Female students, E: Parents of Male students/Parents of Female students, F: Female students/Parents of Female students. Non-significant entries are omitted.

* $P \leq .05$

** $P \leq .01$

*** $P \leq .001$

(item 7), parental opinions should be more influential when there are conflicting thoughts for youth (item 11), parents consider the religious belief is more important (item 16). However, there are two items which are different between the two generations but are not commonly different to both parent groups. While item 2 is only significant between female students and their own parents (i.e., parents consider the general social standards of parents' own peers are better), item 4 is significant between female students and the parents of male students (i.e., parents of male students have higher mean value on "my peer's opinion of myself as a person").

It was designed that item 8 would measure the perceived levels of the so-called generation gaps in each family from both students and their parents. Therefore, it seems feasible to determine the relationships between this perception and the other fifteen social and psychological variables for each of the four groups. A separate multiple regression analysis was performed by treating item 8 as the criterion variable and the other 15 items as predictor variables. The standard regression coefficients (B's) and the product-moment correlation coefficient (r's) of these variables with the criterion are summarized in Table 21.

As indicated by squared multiple regressions, at least 42 percent of the variance in perception of so-called generation gaps were accounted for among the four groups. The parents of female students group in particular have the best prediction value with 74 percent of variance accounted for. It should be noted that since all scores are bi-polar, negative signs of regression weights will have meanings different from the usual prediction of unipolar scores (Tzeng & Osgood⁸¹). Variables attributing significantly to the multiple regression equations of the so-called generation gaps are quite similar between male students and their parents. Two most important items are the intergenerational distances in most of opinions at home (item 9) and the general social standards of (children's as well as parents') peers (item 2) — both with a standard regression weight significant beyond the .01 level. Among the remaining variables, the zero-order correlations were significant for item 1 (the general social standards of parents, when answered by the students, and of children, when answered by the parents), item 5 (parent-child satisfaction level at home), and item 14 (the satisfaction level of students' high school education). For the male students in particular, item 4 is also significant at the .05 level (peers' opinion of oneself as a person). On the other hand, for the parents of male students, items 3 and

Table 21
Prediction of Perceived Generation Gaps Within the Family

Variable	Male students		Parents of male students		Female students		Parents of female students	
	B	(r)	B	(r)	B	(r)	B	(r)
1.	-.02	-.35*	.23	-.37*	-.10	-.34*	.23 ^m	-.31*
2.	-.41*	-.42**	-.44*	-.41**	-.19	-.39**	-.38**	-.36*
3.	.15	-.14	.29	-.27 ^m	.20 ^m	-.10	.34*	-.09
4.	-.05	-.35*	-.10	-.16	-.08	-.32*	.33*	-.07
5.	-.19	-.26 ^m	-.23	-.40**	-.00	-.11	-.57**	-.45**
6.	-.16	.00	.01	-.09	.18	.14	-.27*	-.31*
7.	.07	-.12	-.04	.02	.03	-.09	.02	-.03
9.	.41*	.56**	.36*	.46**	.55**	.62**	.40**	.64**
10.	.16	.14	-.08	-.21	.22 ^m	.00	-.17 ^m	-.26 ^m
11.	-.08	-.16	.13	.11	-.16	-.28 ^m	-.02	-.18
12.	-.23	-.17	-.23 ^m	-.32*	-.08	-.22	.12	-.15
13.	-.03	.00	-.01	-.23	-.03	-.11	.03	.08
14.	.08	-.25 ^m	-.08	-.27 ^m	.04	-.14	.25*	.20
15.	.11	-.10	.07	-.07	-.02	-.30*	-.35*	-.14
16.	-.13	-.17	.15	.01	-.19	-.10	-.04	.05
Multiple R (R ²)	.72	(.52)	.65	(.42)	.75	(.56)	.86	(.74)

m p < .10;

* P < .05;

** P < .01

12 are also significant — that is, the existence of the generation gap is highly correlated with parents' own low self esteem and lower level of involvement with sports and physical activities. Due to different intervariable relationships, some of these variables do not automatically become significant predictors.

For *the female student group*, item 9 (inter generational distances in most of their opinions) is clearly a significant predictor for the existence of the so-called generation gap at home. Two other items are also moderately good in prediction, they are item 3 (personal esteem of selves) and 10 (favorable attitude toward saving money for the future). However, in terms of product-moment correlations, both of these two items are not significant. Other variables with high r 's values include item 1 (general social standards of their parents), item 2 (general social standards of peers), item 4 (peer's opinion of themselves), item 11 (emphasis of peer group's influence on conflicting thoughts), and item 15 (lower satisfaction level of childhood in general). Compared with the solutions from the male students group, female students tend to rely heavily on self esteems and childhood development in the course of inter-generation understanding.

In predicting the perceptions the *parents of female students*, the existence of so-called generation gaps is best predicted, in order, by item 5 (the student's satisfaction with me as a person), item 9 (distances with children in most of their opinions), item 2 (general social standards of parent's own peers), item 15 (satisfaction level of parents' own childhood), item 3 (parents own opinions of selves), item 4 (opinions of selves as a person from parents' own peers) and item 14 (the satisfaction level of children's high school education). It is interesting to note that like the solution of female students, all these items also cover mostly the parents' own self esteem and development.

Since item 9 (inter-generational distances in most of children's opinions) is highly predictive for the existence of generation gaps across all four groups, it is therefore to treat it as the criterion variable to be predicted from the remaining fourteen variables. As given in Table 22, multiple R 's are higher than .59 for all four groups. The predictions of the two parents groups are specially significant beyond the .01 level. For the *male students group*, four variables have significant r 's with item 5 (parents satisfaction with the students) being also significant in prediction. The other three variables are item 4 (peer's opinion of self as a person), item 1 (general social standards of parents), and item 15 (students low satisfaction level of childhood). For the *parents of male students*, significant prediction variables include item 5 (the student's unsatisfaction with

Table 22
Prediction of Perceived Generational Distances on Opinions

Variable	Male students		Parents of male students		Female students		Parents of female students	
	B	(r)	B	(r)	B	(r)	B	(r)
1.	-.17	-.31*	-.00	-.36*	-.34 ^m	-.46**	-.22	-.42**
2.	-.02	-.17	-.03	-.31*	-.00	-.34*	-.08	-.22
3.	.14	-.08	-.43*	-.47**	.00	-.27	.28	-.34*
4.	-.26	-.42**	.20	-.35*	-.26 ^m	-.41**	-.26	-.36*
5.	-.40 ^m	-.44**	-.44*	-.59**	-.03	-.21	-.38 ^m	-.55**
6.	-.11	.08	-.32*	-.34*	.13	-.07	-.11	-.31*
7.	.05	-.14	.08	.09	.01	.00	-.26	-.12
10.	.23	.10	-.09	-.07	-.00	-.15	.06	-.19
11.	.14	-.11	-.06	-.13	-.05	-.21	-.32 ^m	-.25 ^m
12.	-.15	-.04	.18 ^m	-.19	-.06	-.02	-.40 ^m	-.30*
13.	-.03	.03	.18 ^m	.22	-.18	-.20	-.10	-.01
14.	.03	-.24	-.00	-.29 ^m	-.24 ^m	-.29	.34*	.04
15.	-.02	-.29 ^m	-.15	-.15	-.09	-.40**	.13	-.21
16.	-.12	-.15	-.06	-.05	.22	.09	.14	-.09
Multiple R (R ²)	.59	(.35)	.76	(.58)**	.67	(.45)	.75	(.56)**

m P < .10;

P < .05;

** P < .01

me as a person), item 3 (low personal opinion of self), item 6 (favorable attitude toward rock music), and item 13 (parents own high level of boredom). On the other hand, items, which do not contribute significantly to the prediction but are highly correlated with the criterion variable by r , include item 1 (general social standard of children), item 2 (social standards of parents own peers), and item 4 (parent's opinion of self as a person). Results from both male students and their parents seem to suggest a possible relationship between parents own social and/or economic adjustments (not necessarily status) and their relationships with children.

For *the female student group*, three items are moderately predictive — item 1 (parents general social standards), item 4 (peer's opinion of self) and item 14 (satisfaction level of students' own high school education). Items 2 and 15 (i.e., general social standards of students' peers, and students' own satisfaction level of children in general) have significant correlations with the criterion variable. For *the parents of female students*, the general patterns of prediction and correlations found for the parents of male students group also hold, but with minor deviations in the order of magnitude among coefficients.

Note

81. Tzeng, O.C.S. & Osgood, C.E. Validity tests for Componential Analysis of Conceptual Domains: A Cross-Cultural Study in Methodology. *Behavioral Sciences*, 1976, 21(2).

CHAPTER V

DISCUSSION AND CONCLUSIONS

The present research is a case study of the so-called generation gaps between high school students of both sexes and their parents. It is an exploratory study in both the theoretical and methodological aspects. In theory, the nature and extent of generational discrepancies are examined through empirical measurements of inter-generational adjustments and opinions; and in method, a more powerful research strategy and technique is employed to guarantee the content and construct validities of the solutions. Intra- and inter-generational comparisons on issues of opinion differences and on social and psychological correlates of the discrepancies provide some promising new information on the nature and dynamics of generation gaps. Since all of these aspects — theory, method, and results — and their implications are equally important for future studies in generations and contexts of inter-personal communications, the present chapter will discuss each of them separately.

On Theorizing of Generation Gaps

The general purpose of this study is to detect the areas of generational discrepancies between high school students and their parents in order to probe the influence of these discrepancies on students' social adjustments and personality development. Unlike other research in generations where the domain of issues was usually defined by the researchers, and where inter-generational differences in perceiving the issues were then regarded as the contributing factor to children's personality development and social adjustments, the present research follow Tzeng's theoretical formulation and strategy with emphasis of direct and simultaneous evaluation of the three major variables involved in human cognition and judgments — individuals, objects, and underlying psychological criterion.

Through a naturalistic elicitation procedure, important issues which have significant effects on inter-generational communications and adjustments at home, were direct obtained from the subject population. As a result, two types of discrepant opinions could be identified — one as being common to both generations, and the other being unique to parents or to students (of both or either sex). While the common items can be considered as *mutual perceived generation gaps*, the parental and/or children unique variables can be conceived

as *partial perceived generation gaps*. It seems reasonable to assume that in the course of inter-generational communications, mutual generation gaps are discrepancies known to both parties with obvious effects on their relationships and adjustments, but partial generation gaps are usually unknown to either party with only potential effects. In the present study, the majority of reported discrepant issues belong to the common (known) generation gaps category and thus were used for subsequent intra- and inter-generational comparison. On the other hand, most of partial issues are not inter-related with very low reporting frequencies. Therefore, unless being highly correlated to mutual discrepant issues, they were not included for subsequent treatment.

Since underlying psychological criterion variables are the major determinant factors for human behaviors and intentions, each reported common variable should in theory have value with respect to any underlying psychosemantic criterion. This implies that each perceived generational gap could be mathematically mapped onto various inter-generational difference continuum. The differences of the perceived values for an issue from the two generations should then be expected ranging from zero to some maximal magnitude. For example, the concept FREE TO LEAVE HOME should have two judgment values on the *good-bad* scale from both parents and their children. The difference between the two values should reflect the generational difference in opinion of the concept. However, if one is able to identify an indiscriminant interval around the value zero to represent the acceptable similarity of psychological characteristics of an issue, then values within the interval would represent the pseudo-generational gaps – reflecting that both generations actually perceive the same issue in a non-discriminant way with respect to the same psychological criterion. On the other hand, values beyond the interval would indicate the true quantitative natures of generation gaps. In this respect, the semantic differential technique was used to measure 18 elicited opinions on a set of 29 bi-polar scales which all have direct concept domain relevancy.

On the Method of Data Analysis

For the data of semantic differential ratings from students of both sexes and their parents, factor analytic technique is the major treatment tool. It is to identify the underlying features or structures dominating the inter-scale and inter-concept relationships for all four groups. However, it should be noted that in usual application of factor analysis, inter-variable correlations are usually used

as input (cf., Harman⁸²). But according to Tzeng⁸³ a product-moment correlation coefficient is not sensitive to the constant group mean differences in ratings of objects against various scales, and nor is r stable if some scale poles are presented in a different form. Therefore, the cross-products of variables were used as input factor analysis in the present research.

Intra-generational as well as inter-generational comparisons are also made on both the concept and scale factor structures across all four groups. This is to examine the generational phenomena with respect to both macro (age-cohort) and micro (family lineage) levels. For the illustrative purpose, three-mode factor analytic solutions for the male-students group are also represented. Three-way factorial structures of subjects, objects and underlying psycho-semantic criteria and their interactions then become obvious in reflecting the subject type similarities and differences. In fact, similar three-mode factor analytic solutions can be obtained for all other three groups, and intra- and inter-generational comparisons can be accordingly conducted to their core matrices. This will be a topic for the future continuing research in this area.

For data from the third part of questionnaire — subject ratings of sixteen unidimensional variables, two analytic procedures were carried out. The first is the analysis of variance scheme for intergroup comparisons on each variable. Detailed information on intra- and inter-generational similarities and differences is thus available. Of course, other alternative methods may also be applied. For example, one may conduct t test for *differences in means* for each pair of inter-generational comparisons between the students groups with their parents, and also conduct t test for *means* between two intra-generation groups (e.g., male students versus female students) or between two inter-generational groups without linear relationship (e.g., male students versus parents of female students). The second analytic technique employed in this study is multiple regression of one criterion variable on other predictor variables. In the original construction of sixteen variables, items 8 and 9 were purposely included as criterion variables. Given the fact that item 8 which is a direct measure of generation gaps is successfully predictable from all other variables — especially by item 9 which is an indirect indication of generation gap within each family, it is logical and advantageous to predict item 9 by other social and psychological correlates of generational gaps. The solutions seem to support that as far as the investigation of the dynamics of generational gaps is concerned, the research methodology employed is quite sufficient.

On Solutions and Implications of the Present Research

As indicated before, this exploratory study includes three phases of research:

(1) to identify the conflictual issues of generational gaps directly from the subjects of both generations, (2) to compare the judgmental patterns of scale and concept domains across all four groups, and (3) to probe the nature and dynamics of generational gaps. Given the fact that both the theoretical framework and methodological strategies of this study are consistent with Osgood's theory of human cognition and general measurement theories of reliability and validity, the solutions presented in Chapters 2, 3 and 4 seem to have maximal values for theorizing the so-called generational gaps.

In comparisons with reported generation gaps at college level (Tzeng and Dimit⁸⁴), the solutions from the first phase of this study seem to provide invaluable information on the future status of inter-generational communications and adjustments. It is interesting to note that there exists a continuation of generation gaps between students at the high school level and those at the college level. In general, for high school students, reported discrepancies are very much concerned with self developments and near environmental adjustments (including family and inter-personal relationships). Social economic aspects of differences are minimal. For female students in particular some unique issues were evident — mainly in relation to current emphasis of woman's equal opportunity in social and institutional functions. This phenomenon is also most conflictual for college females and their parents as reported by Tzeng and Dimit. Dating and sex education is another area of obvious conflict not only at the high school level but also at the college level.

Results on the semantic differential ratings of 18 discrepant opinions as obtained from the second phase of the present research indicate that both students and parents groups yield quite congruent structure of psychosemantic criteria. In the affective space, Osgood's Evaluation, Potency, and Activity structure are well preserved. Among the other denotative dimensions, Uniqueness and Predictability are the cross-sex and cross-generational common dimensions. In the conceptual structure of 18 opinion items, three factors "CONTEMPORARY YOUTH'S LIFE PATTERN", "YOUTH IDEAL SOCIAL BEHAVIORS", and "TRADITIONAL EXPECTATIONS OF YOUTH" are ubiquitous across all four groups. Since these three factors may not be congruent in subject underlying psychosemantic space as shown in the core matrix of male students, they will function as potential constant pressures in the course of the

personality development and social adjustment for youth. Unless some kind of compromise between them can be developed (e.g., a "CULTURAL ADAPTABILITY" dimension as found for female students and their parents) adjustment problems with youth may become severe and persistent. It seems therefore very important for policy makers to prepare an active educational program to bridge such adjustment bi-polarities between the traditional expectations and contemporary youth ideal behaviors. In other words, it should be an ideal program which will help the youth to cultivate a healthy attitude toward the simultaneous adjustment of these extremes without requiring their inner emotional struggle.

Phase three of the present research indicates that in terms of ANOVA on the 16 unidimensional variables, no significant difference within each generation (i.e., comparisons between male students and female students, as well as comparisons between parents of both student groups) is evident, but significant differences appear in the inter-generational comparisons. In general, parent groups seem more satisfied with the values and establishments of their immediate environment and social institutions, whereas the student groups have more favorable attitudes toward sports and rock music. In order to explore the dynamics of generation gaps, the perceived generation gaps within each family were predicted by other variables. Both generation groups agree that two items have significant contribution to such perceptions. They are inter-generational distances in most of students' opinions at home, and general social standards of children's, as well as parents', own peers. This seems to stress the important effects of implicit value system and environmental pressures on individual behaviors and adjustments in family and society. Another interesting finding from this part of the study is that parents own social adjustment and self esteem are highly related to their distances from children in most opinions. The immediate implication can be that the perceived generational gaps are not only due to children's maladjustments of social and environmental pressures, but also due to parents' own personality factors. Since family is one of the closest environments which contribute to children's progress and patterns of personality development and social adjustments, the present research seems to justify that in a future research of generation gaps, the importance of parental roles and personality factors should be more emphasized.

Notes

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83. Tzeng, O. C. S. *Q-Reliability Coefficient for Semantic Differential Ratings*. University of Illinois, 1976(b). (Mimeo.)
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APPENDIX A

Questionnaire About Opinion Differences Between Generations

Code ____ (S)

Student Form

I. Information:

Please place an "X" by those which apply.

Year in school: Freshman____, Sophomore____,

Junior____, Senior____,

Sex: Male____, Female____.

II. Areas which you feel being quite different from your parents:

Please list as many issues as you think apply (hoepfully at least five).

Use specific phrases, not general statement.

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

*Attitudinal Differences Between High School Students and
Their Parents in U.S.A.: A Case Study of Generation Gap*

Questionnaire About Opinion Differences Between Generations

Code ____ (P)

Parent Form

I. General Information:

Please fill in the blanks and place "X" in the boxes which apply. In order to facilitate comparisons between parent group and students, may I request that the parents and students participating in this study are of the same sex.

Person who is answering this questionnaire is:

father _____

mother _____

II. Areas which you usually consider being different from your son or daughter:

(Please list as many issues as you think apply (hopefully at least five).

Use specific phrases, not general statement.

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

APPENDIX B

General Information (Parent Form)

No. _____

Please fill in the blanks and place an "X" by those which apply.

1. This questionnaire is answered by:
father alone____, mother alone____, both parents_____.
2. If your answer on the above question is both parents, who does the first part of this questionnaire (page 1 - 5)?
Father____, Mother_____.
3. Highest education received by parent(s) who participate(s) in this study:
Father: below high school____, high school____,
technical training____, college____,
above college____,
Mother: below high school____, high school____,
technical training____, college____,
above college____,
4. Your family income in the region where you live:
Above average____, Average____, Below average_____.
5. Who has influenced student's opinions *most*:
Father____, Mother_____.
6. Age of parent(s) who participate(s) in this study:
Father____, Mother_____.
7. Marital status: check if applicable
Divorced____, Widowed____,
Remarried____, Separated_____.

From here on, you will be asked to make responses on each question. The basic form of the question and an example follow.

Suppose that the first page of your questionnaire had the words, "SMOKING CIGARETTE is" at the top of the page and had the following line beneath it:

very	quite	slightly		slightly	quite	very
good	good	good	neither	bad	bad	bad
good	_____	_____	_____	_____	_____	bad

You would indicate for this line, how closely in your opinion, the example words, "SMOKING CIGARETTE", was related to one of the sides of the pair of opposites. For example, you might feel that SMOKING CIGARETTE was *very good* by putting your check mark as such:

good	X	_____	_____	_____	_____	_____	bad
				0			

For some of the words it may be hard to see how the words are related at all, but we have found that it will go quite easily if you, as rapidly as possible, without being careless, use your first impression without thinking very long about

Examples of The Items on The Questionnaire

1. Parents imposing curfew on high school students is:

	very	quite	slightly	neither	slightly	quite	very
active _____	_____	_____	_____	0	_____	_____	lazy _____
wrong _____	_____	_____	_____	0	_____	_____	right _____
careful _____	_____	_____	_____	0	_____	_____	careless _____
beautiful _____	_____	_____	_____	0	_____	_____	ugly _____
rational _____	_____	_____	_____	0	_____	_____	irrational _____
naive _____	_____	_____	_____	0	_____	_____	sophisticated _____
unpleasant _____	_____	_____	_____	0	_____	_____	pleasant _____
disreputable _____	_____	_____	_____	0	_____	_____	reputable _____
unimportant _____	_____	_____	_____	0	_____	_____	important _____
usual _____	_____	_____	_____	0	_____	_____	unusual _____
dangerous _____	_____	_____	_____	0	_____	_____	safe _____
powerful _____	_____	_____	_____	0	_____	_____	powerless _____
flexible _____	_____	_____	_____	0	_____	_____	rigid _____
unreasonable _____	_____	_____	_____	0	_____	_____	reasonable _____
slow _____	_____	_____	_____	0	_____	_____	fast _____
destructive _____	_____	_____	_____	0	_____	_____	constructive _____
dirty _____	_____	_____	_____	0	_____	_____	clean _____
tolerant _____	_____	_____	_____	0	_____	_____	intolerant _____
self-confident _____	_____	_____	_____	0	_____	_____	insecure _____
bad _____	_____	_____	_____	0	_____	_____	good _____
necessary _____	_____	_____	_____	0	_____	_____	unnecessary _____
noisy _____	_____	_____	_____	0	_____	_____	quiet _____
relaxed _____	_____	_____	_____	0	_____	_____	tense _____
light _____	_____	_____	_____	0	_____	_____	heavy _____
immoral _____	_____	_____	_____	0	_____	_____	moral _____
unpredictable _____	_____	_____	_____	0	_____	_____	predictable _____
clever _____	_____	_____	_____	0	_____	_____	stupid _____
artificial _____	_____	_____	_____	0	_____	_____	natural _____
strong _____	_____	_____	_____	0	_____	_____	weak _____

2. Attending church regularly for high school students is:

	very	quite	slightly	neither	slightly	quite	very
active	_____	_____	_____	_____	_____	_____	lazy
wrong	_____	_____	_____	0	_____	_____	right
careful	_____	_____	_____	0	_____	_____	careless
beautiful	_____	_____	_____	0	_____	_____	ugly
rational	_____	_____	_____	0	_____	_____	irrational
naive	_____	_____	_____	0	_____	_____	sophisticated
unpleasant	_____	_____	_____	0	_____	_____	pleasant
disreputable	_____	_____	_____	0	_____	_____	reputable
unimportant	_____	_____	_____	0	_____	_____	important
usual	_____	_____	_____	0	_____	_____	unusual
dangerous	_____	_____	_____	0	_____	_____	safe
powerful	_____	_____	_____	0	_____	_____	powerless
flexible	_____	_____	_____	0	_____	_____	rigid
unreasonable	_____	_____	_____	0	_____	_____	reasonable
slow	_____	_____	_____	0	_____	_____	fast
destructive	_____	_____	_____	0	_____	_____	constructive
dirty	_____	_____	_____	0	_____	_____	clean
tolerant	_____	_____	_____	0	_____	_____	intolerant
self-confident	_____	_____	_____	0	_____	_____	insecure
bad	_____	_____	_____	0	_____	_____	good
necessary	_____	_____	_____	0	_____	_____	unnecessary
noisy	_____	_____	_____	0	_____	_____	quiet
relaxed	_____	_____	_____	0	_____	_____	tense
light	_____	_____	_____	0	_____	_____	heavy
immoral	_____	_____	_____	0	_____	_____	moral
unpredictable	_____	_____	_____	0	_____	_____	predictable
clever	_____	_____	_____	0	_____	_____	stupid
artificial	_____	_____	_____	0	_____	_____	natural
strong	_____	_____	_____	0	_____	_____	weak

The Rest Items on The Questionnaire

Item

3. High school students accepting responsibility at home is:
4. Going steady for a high school student is:
5. High School students dressing sloppily is:
6. High school students choosing their own hair style is:
7. Being free to leave home when a high school student feels he or she is independent is:
8. High school students spending a long time on the telephone is:
9. High school students owning or driving a car is:
10. High school students drinking alcoholic beverage is:
11. High school students getting good grades for future advancement is:
12. Rock music is:
13. Neatness of a bedroom is:
14. Parents' consultation for high school students' spending money is:
15. Freedom from restriction for high school students on sports and activities after school is:
16. Frequent open discussion on all issues between high school students and their parents is:
17. High school students showing respect to authority is:
18. Dating whenever the high school student wants is:
19. The general social standards of my parents (or my child if answered by parents) are:
 good _____ : _____ : _____ : _____ : _____ : _____ : _____ bad
 0
20. The general social standards of my peers are:
 good _____ : _____ : _____ : _____ : _____ : _____ : _____ bad
 0
21. My own opinion of myself as a person is:
 high _____ : _____ : _____ : _____ : _____ : _____ : _____ low
 0
22. My peer's opinion of myself as a person is:
 high _____ : _____ : _____ : _____ : _____ : _____ : _____ low
 0
23. Parents' (or the student's) satisfaction with me as a person is:
 favorable _____ : _____ : _____ : _____ : _____ : _____ : _____ unfavorable
 0

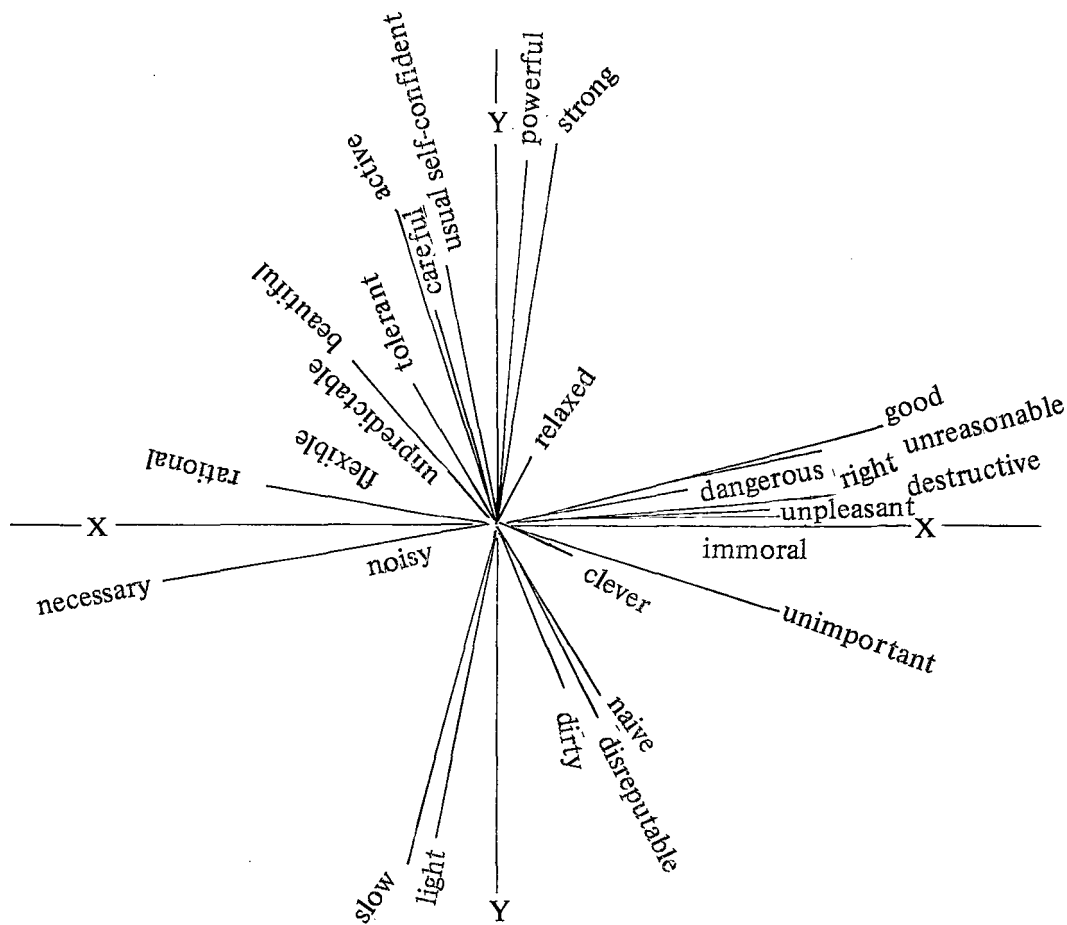
24. Rock music is:
enjoyable _____ : _____ : _____ : _____ : _____ : _____ : _____ not enjoyable
0
25. The political system in this country is:
satisfactory _____ : _____ : _____ : _____ : _____ : _____ : _____ unsatisfactory
0
26. The so-called generation gap between parents and children in my family
does:
exist _____ : _____ : _____ : _____ : _____ : _____ : _____ not exist
0
27. My distance from my parents (or my children, if answered by parents)
in most of their opinion is:
far _____ : _____ : _____ : _____ : _____ : _____ : _____ close
0
28. Saving money for the future as opposed to spending it now is:
good _____ : _____ : _____ : _____ : _____ : _____ : _____ bad
0
29. In general, when there are conflicting thoughts for youth, whose opinions
should be more influential:
parents _____ : _____ : _____ : _____ : _____ : _____ : _____ peer group
0
30. My own level of involvement with sports and physical activities is:
high _____ : _____ : _____ : _____ : _____ : _____ : _____ low
0
31. My level of boredom is:
high _____ : _____ : _____ : _____ : _____ : _____ : _____ low
0
32. My (i.e. the student) high school education is:
satisfactory _____ : _____ : _____ : _____ : _____ : _____ : _____ unsatisfactory
0
33. My satisfaction level of childhood in general was:
high _____ : _____ : _____ : _____ : _____ : _____ : _____ low
0
34. I consider that the religious belief is:
Important _____ : _____ : _____ : _____ : _____ : _____ : _____ unimportant
0

APPENDIX C

(I) Male-students' Factor Loadings of Scales

Scales	Dimensions				
	1	2	3	4	5
good/bad	.38	.10	.00	-.00	.01
right/wrong	.34	.03	-.07	.00	-.01
strong/weak	.06	.40	.00	-.03	.01
powerful/powerless	.03	.37	.02	.02	.01
slow/fast	-.09	-.36	.00	-.01	.03
noisy/quiet	-.05	.01	.39	-.00	-.00
active/passive	-.10	.32	.19	-.02	.17
careful/careless	-.06	.21	-.12	-.17	-.19
beautiful/ugly	-.14	.16	-.08	.05	-.11
rational/irrational	-.23	.04	-.02	-.04	-.05
naive/sophisticated	.10	-.17	.12	.00	.19
unpleasant/pleasant	.28	.02	.01	-.09	.01
disreputable/reputable	.10	-.19	.07	.06	.13
unimportant/important	.28	-.09	-.35	.06	-.13
usual/unusual	-.05	.17	.13	-.18	.64
dangerous/safe	.19	.04	.23	.06	.09
flexible/rigid	-.11	.02	-.08	.58	.29
unreasonable/reasonable	.32	.08	.02	.01	-.04
destructive/constructive	.27	.02	.08	-.00	.11
dirty/clean	.06	-.15	.23	.00	.16
tolerant/intolerant	-.08	.14	-.18	.13	.09
self-confident/insecure	-.05	.26	-.13	.05	.03
necessary/unnecessary	-.33	-.06	.11	-.11	.01
relaxed/tense	.03	.06	-.45	.18	.29
light/heavy	-.06	-.31	-.24	.03	.13
immoral/moral	.20	.00	.07	.12	-.03
unpredictable/predictable	-.04	.05	.26	.69	-.21
clever/stupid	-.11	.14	-.14	-.01	-.17
artificial/natural	.07	-.03	.20	.00	-.30

(II) Two Dimensional Plots of Factor Loadings*



*Given a 29 x 6 (variables by dimensions) factor loading matrix, there are 15 possible two dimensional plots that can be drawn from each pair of dimensions (i.e., $n(n-1)/2$ pairs). However, for the present purpose of illustrating the relationships between the SD scales and dimensions, only two diagrams were depicted.

美國高中學生及家長態度之差異：代溝之個案研究

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〔中文摘要〕

「代溝」是一項具有長久歷史的社會和教育問題，雖然許多學者已經就社會變遷的現象對青年的態度、社會適應和行為模式的影響，有了廣泛的研究，但一般類似的研究多由研究者自行假定兩代間態度差異之領域，含有濃厚的主觀色彩，而且資料的分析多以敘述性的統計方法為主，結果難趨週密。因此，兩代間溝通和適應上的困難，迄今依然存在於社會之中，「代溝」的範圍和程度，亦未獲得一致的結論。

本文為對「代溝」理論及其研究方法之一項探測性之研究。其主要目的是在發現美國高中學生及其家長間態度差異之真實領域，以便進而探查這些差異對青年的社會適應和人格發展的影響。本文之內容除對「代溝」有關之研究作深入之探討，以明瞭其歷史發展及社會變遷中適應問題與困難所在，並特別選用「語義分析法」之理論與技術，作為研究設計之架構；在資料處理的方法上，更引用較精密的統計方法，以確保研究結果之信度與效度。全部設計共分為三個層次：第一，採用自然發生的方法直接從受測之高中學生及其家長測得影響他們意見溝通和適應困難之重要問題；第二，用語義分析和因子分析的方法比較兩代之間及男女性別之間四組受測者之判斷模式與概念範疇；第三，用變異數分析和多重迴歸的方法探討「代溝」之性質與起因。其重要結論為：

一、由自由發生的方法所獲得之十八項意見差異，供給了研究「代溝」問題之重要基礎。

二、語義分析法無論在理論上和技術上均為研究「代溝」之適當方法。

三、兩代共有之意見差異即其心理標準之價值反映，此項價值差異可以數量表示，清楚地說明了「代溝」之存在及其差異的程度。

四、「當代青年的生活方式」、「青年理想的社會行為」和「傳統對青年的期望」是青年在人格發展和社會適應中經常的潛在壓力，教育實施方面應有適當的計劃，予以調和，否則將會形成嚴重的適應問題。

五、就一般而言，家長對當前的環境和社會制度中的價值比較滿意，而高中學生却對運動和流行的音樂較為偏愛。

六、「代溝」的形成不僅由於學生對社會的不良適應和環境的壓力，而且與家長的人格因素有關。

七、高中學生及其家長間態度之差異與大專學生及其家長間態度之差異有連續性。