



**Thesis by
IDEHEN,
EGBEWUARE
EMMANUEL**

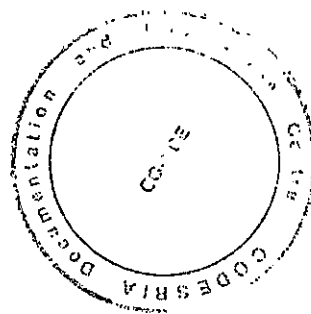
**UNIVERSITY, ILE-IFE,
NIGERIA**

**PERSONAL DISPOSITION AND
FUTURE ORIENTED MOTIVATION OF
OBAFEMI AWOLowo UNIVERSITY STUDENTS**

1998



03 NOV. 1998



05.03.02
IDE
10951

**PERSONAL DISPOSITION AND
FUTURE ORIENTED MOTIVATION OF
OBAFEMI AWOLOWO UNIVERSITY STUDENTS**

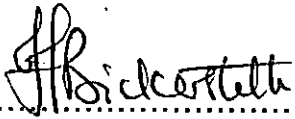
IDEHEN, EGBEWUARE EMMANUEL

A THESIS SUBMITTED TO THE FACULTY OF SOCIAL SCIENCES
OBAFEMI AWOLOWO UNIVERSITY, ILE-IFE, NIGERIA,
IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE
DEGREE OF DOCTOR OF PHILOSOPHY IN PSYCHOLOGY

1998

CERTIFICATION

I certify that this work was carried out by Mr. Idehen, Egbe Emmanuel at the Department of Psychology, Obafemi Awolowo University, Ile-Ife, Osun State, Nigeria.



.....
Dr. Funmi Togonu-Bickersteth,
Head,
Department of Psychology,
Obafemi Awolowo University,
Ile-Ife.



.....
Supervisor
Dr. F. Togonu-Bickersteth
Department of Psychology
O.A.U.
Ile-Ife.

.....
Co-Supervisor
Professor A.A. Olowu
Department of Psychology
O.A.U.
Ile-Ife.

ACKNOWLEDGEMENT

In carrying out a work of this magnitude, one inevitably becomes beholden to many people. It is however impossible to acknowledge everyone of these people. Hence, those whose names do not appear on these pages should accept my apologies. The failure to mention them was neither meant as a slight nor due to ingratitude. First, I gratefully acknowledge that this project was funded by CODESRIA.

In the course of this work, I was lucky and privileged to have Dr. Funmi Togonu-Bickersteth as my teacher and supervisor. Her concern, relentless encouragement, stimulation and above all faith in my ability were always the impetus to go on even when hope dimmed. I am especially grateful for her patience, time and material. My gratitude also goes to Professor A.A. Olowu, the co-supervisor of this work, for his fatherly concern and unstinting support throughout the period of my doctoral studies.

I wish too, to extend my gratitude to Drs. Akinnawo, Elegbeleye and Ajila; Messrs Akinyele, Adegoke, and Oguntula, and Mrs. E.A. Ayeni for giving me strength through words of encouragement, advice and thoughtful suggestions. To Dr. Clifford Odimegwu, who assisted with the data analysis, I say a very big thank you. To my wife Diekololami and the children, I say thanks for their understanding and support throughout this trying period. A very big thank you also goes to Chief and Chief (Mrs.) A. Adegbonmire, for their love and support. To all others too numerous to mention, I say, thank you.

ABSTRACT

Predicated upon the assumption that there are large individual differences in the capacity for all persons to be oriented toward the future, this study sought to explore and describe how Nigerians conceive of their future. The relationship between personal disposition and future orientation is mediated by several control variables such as age, gender, educational status, and religiosity. Five major hypotheses were proposed to explain the possible relations between these variables. These broad global hypotheses were broken into subsidiary postulates that related the independent and control variables with the four dimensions into which future orientation was analyzed.

Cross-sectional survey method was used for the study. A purposive-convenient sample was drawn from the Obafemi Awolowo University community. Three principal self-report paper-and-pencil scales were used to collect both qualitative and quantitative data for the study. To ease the coding of the qualitative data, a coding manual was drawn.

The data collected were analysed by means of the several sub-programmes of the SPSS PC+ Version 4.01. The results of these analyses suggest that the major portion of the variance in future orientation is contributed by age. The other variables - personal disposition, gender, educational status, and religiosity - were shown to be weak predictors of future orientation. The more the goals generated, the longer the future time span. The farther into the future goals were extended, the less people believe they are capable of accomplishing or preventing them. The less personal influence people felt they can exert on the occurrence of their goals, the less positive their outlook on the future. Future-oriented goals and their related temporal extensions decreased with increase in age.

TABLE OF CONTENTS

	Page
CERTIFICATION	ii
ABSTRACT	iii
ACKNOWLEDGEMENT	iv
TABLE OF CONTENTS	v
LIST OF TABLES	xii
LIST OF FIGURES	xiv
CHAPTER ONE	
INTRODUCTION	1
1.1 Background to the study	6
1.2 Statement of the research problem	11
1.3 Objectives of the study	15
1.4 Significance of the study	15
1.5 Scope of the study	19
1.6 Limitations of the study	20
1.7 Definition of terms	21
CHAPTER TWO	
LITERATURE REVIEW	24
2.1 Future Orientation	24
2.1.1 Methods previously applied in	

	research on future orientation	27
2.1.1a	Indirect Methods	28
2.1.1b	Direct Methods	30
2.1.2	Thematic Content	34
2.1.2a	Personal hopes	40
2.1.2b	Personal fears	48
2.1.2c	Age differences in future-oriented goals	53
2.1.2d	Gender differences in future-oriented goals	57
2.1.3	Temporal Extension	60
2.1.3a	Age differences in extension	63
2.1.3b	Gender differences in extension	67
2.1.3c	Educational status differences in future orientation	69
2.1.4	Affective tone	71
2.1.5	Perceived control	74
2.2	Personal disposition	80
2.3	Religiosity	83
2.4	Summary of the literature review	91
2.5	Examination of relevant theories and constructs	95
2.5.1	Heuristic principles applied in earlier research	96
2.5.2	The relational approach	96
2.5.3	The process approach	97
2.5.4	Expectancy X value models approach	98
2.5.5	Self-regulation approach	99
2.6	Hypotheses	100

2.6.1	Operational definitions	103
CHAPTER THREE		
	METHODOLOGY	105
3.1	Research Design	106
3.2	The Sample	107
3.2.1	The pre-test respondents	109
3.2.2	Participants in the main study	110
3.3	Measures	113
3.3.1	Personal Data form	113
3.3.2	Future Possibilities Questionnaires (FPQ)	114
3.3.3	Attitude and Internality Scale (AIS)	117
3.3.4	Life Orientation Test (LOT)	119
3.3.5	Religious Orientation Test (ROT)	122
3.3.6	Purpose in Life Test (PIL)	124
3.3.7	Awaritefe Psychological Index (API)	125
3.3.8	Health Behaviour Questionnaire (HBQ)	126
3.4	Questionnaire Administration	127
3.5	Coding and Scoring of the FPQ	133
3.6	Reliability and Validity of the Measures	140
3.6.1	Future Possibilities Questionnaire (FPQ)	141
3.6.2	Life Orientation Test (LOT)	150
3.6.3	Religious Orientation Test (ROT)	151
3.7	Data Analysis	153

CHAPTER FOUR

RESULTS	156
4.1 Age	161
4.1.1 Content of Hope	162
4.1.1a Age Group 13-18 (adolescents)	165
4.1.1b Age group 19-35 (young adults)	169
4.1.1c Age group 36-49 (middle age)	170
4.1.1d Age group 50-56 (late adulthood)	171
4.1.2 Content of fear by age	174
4.1.2a Age group 13-18 (adolescents)	175
4.1.2b Age group 19-35 (young adults)	181
4.1.2c Age group 36-49 (middle aged)	182
4.1.2d Age group 50-56 (late adulthood)	182
4.1.3a Extension of Hope by Age	185
4.1.3b Extension of Fear by Age	187
4.1.4a Control of Hope by Age	191
4.1.4b Control of Fear by Age	192
4.1.5 Affective Tone by Age	197
4.2 Gender	198
4.2.1a Content of Hope by Gender	198
4.2.1b Content of Fear by Gender	199
4.2.2a Extension of Hope by Gender	201
4.2.2b Extension of Fear by Gender	202
4.2.3a Control of Hope by Gender	203

4.2.3b	Control of Fear by Gender	204
4.2.4	Affective Tone by Gender	205
4.3	Educational Status	206
4.3.1a	Content of Hope by Educational Status	206
4.3.1b	Content of Fear by Educational Status	207
4.3.2a	Extension of Hope by Educational Status	209
4.3.2b	Extension of Fear by Educational Status	211
4.3.3a	Control of Hope by Educational Status	212
4.3.3b	Control of Fear by Educational Status	213
4.3.4	Affective tone by Educational Status	215
4.4	Personal Disposition	215
4.4.1a	Content of Hope by Personal Disposition	216
4.4.1b	Content of Fear by Personal Disposition	218
4.4.2a	Extension of Hope by Personal Disposition	219
4.4.2b	Extension of Fear by Personal Disposition	220
4.4.3a	Control of Hope by Personal Disposition	221
4.4.3b	Control of Fear by Personal Disposition	222
4.4.4	Affective Tone by Personal Disposition	223
4.5	Religiosity	223
4.5.1a	Content of Hope by Religiosity	224
4.5.1b	Content of Fear by Religiosity	225
4.5.2a	Extension of Hope by Religiosity	226
4.5.2b	Extension of Fear by Religiosity	228
4.5.3a	Control of Hope by Religiosity	228

4.5.3b	Control of Fear by Religiosity	229
4.5.4	Affective Tone by Religiosity	230
4.6	Multiple Regression Analyses	230
4.6.1	Predictors of Overall and Domain-Specific Content of Hope	231
4.6.2	Predictors of Overall and Domain-Specific Extension of Hope	239
4.6.3	Predictors of Overall and Domain-Specific Control of Hope	245
4.6.4	Predictors of Overall and Domain-Specific Content of Fear	252
4.6.5	Predictors of Overall and Domain-Specific Extension of Fear	259
4.6.6	Predictors of Overall and Domain-Specific Control of Fear	266
 CHAPTER FIVE		
DISCUSSION		
5.1	Discussion of Findings	275
5.2	Age Differences	284
5.3	Gender Differences	298
5.4	Educational Status Differences	304
5.5	Personality Differences	306
5.6	Religiosity Differences	309

CHAPTER SIX

SUMMARY AND CONCLUSION	312
6.1 Research and Applied Implications	319
REFERENCES	328
APPENDIX A	361
Part 1 Research on Future Intentions	361
Part 2 Future Possibilities Questionnaire Hope Scale (FPQ-H)	362
Part 3 Future Possibilities Questionnaire Fear Scale (FPQ-F)	363
Part 4 Attitude and Internality Scale (AIS)	364
Part 5 Life Orientation Test (LOT)	365
Part 6 Religious Orientation Test (ROT)	366
Part 7 Purpose-in-Life Scale (PIL)	367
Part 8 Awaritefe Psychological Index-Mood Scale (API-M)	368
Part 9 Health Behaviour Questionnaire (HBQ)	369
APPENDIX B	
Life Domain Coding Manual	370
APPENDIX C	
• The Results of the Multivariate Analyses of Variance (MANOVA)	383

LIST OF TABLES

		Page
1.	Demographic Characteristics of the three Samples Included in the Study	112
2.	Summary of Questionnaire Distribution and Response rate	132
3.	Inter-rater Reliability for the Assignment of Goal Statements to Life Domain Categories	144
4.	Test-Retest Reliabilities of the FPQ Scales	146
5.	Intercorrelation of the independent dependent, and control variables	149
6.	Mean Content, Extension, and Control of Hope and Fear Domains	158
7.	Life Domain Categories of Goals, Hopes, and Fears with Relative Frequencies and Ranks	159
8.	Content of Hope by Age with Relative Frequencies and Examples of Responses	166
9.	Percentages of Respondent who Mentioned Hopes Related to the Different Life Domain by Age	173
10.	Content of Fear by Age with Relative Frequencies and Examples of Responses	178
11.	Percentages of Respondents who mentioned Fears Related to the Different Life Domains by Age	184
12.	Mean Content, Extension and Control of Hope by Gender	199

13.	Mean, Content, Extension and Control of Fear by Gender	200
14.	Mean Content, Extension and Control of Hope by Educational Status	208
15.	Mean Content, Extension and Control of Fear by Educational Status	210
16.	Mean Content, Extension and Control of Hope by Personal Disposition	217
17.	Mean Content, Extension and Control of Fear by Personal Disposition	219
18.	Mean Content, Extension and Control of Hope by Religiosity	225
19.	Mean Content, Extension and Control of Fear by Religiosity	227
20.	Hierarchical Regression Analysis: Stepwise Prediction of Overall and Domain-Specific Content of Hope	233
21.	Hierarchical Regression Analysis: Stepwise Prediction of Overall and Domain-Specific Extension of Hope	240
22.	Hierarchical Regression Analysis: Stepwise Prediction of Overall and Domain-Specific Control of Hope	248
23.	Hierarchical Regression Analysis: Stepwise Prediction of Overall and Domain-Specific Content of Fear	253
24.	Hierarchical Regression Analysis: Stepwise Prediction of Overall and Domain-Specific Extension of Fear	261
25.	Hierarchical Regression Analysis: Stepwise Prediction of Overall and Domain-Specific Control of Fear	269

LIST OF FIGURES

	Page
1. Content of Hope by Age with significant differences between groups set at the .05 confidence level	163
2. Content of Fear by Age with significant differences between groups set at the .05 confidence level	176
3. Extension of overall and domain specific Hopes by Age with significant differences between groups set at .05 confidence level	188
4. Extension of overall and domain specific Fears by Age with significant differences between groups set at .05 confidence level	190
5. Control of overall and domain specific Hopes by Age with significant differences between groups set at .05 confidence level	193
6. Control of overall and domain specific fears by Age with significant differences between groups set at .05 confidence level	195

CHAPTER ONE

INTRODUCTION

A major feature of human thinking and acting is orientation toward future events and outcomes. Interestingly, psychological theories have recently begun to focus increasingly on orientation to the future. Bandura (1986) stressed forethought capability as one of the basic features of human thinking. Neisser (1976) discussed anticipation as one of the main functions of schemata. Oppenheimer (1987) underlined future orientation as a major characteristic of goal-directed behaviour. Already, phenomenological analyses of human motivation have revealed that motivational objects are localized in the future. In this perspective, human needs are cognitively processed into numerous means - end structures that constitute our goal objects, behavioural plans, long-term projects and life tasks. It follows that many of our motivational goals, subgoals, and instrumental acts intended to lead to those goals have a more or less defined temporal structure. This cognitive elaboration and temporal structuring of human needs create a future time dimension in our behavioural world. According to Nuttin (1984) future orientation is created by the cognitive elaboration of our needs in numerous means-end structures: in plans, projects, intentions, and tasks which have a more or less elaborate temporal structure. The future has, therefore, been called the "primary motivational space" (Nuttin, 1964). Motivation here refers to the interests people have in the future. Most of the motives, interests, goals, threats, and fears people have are future-oriented.

That is, they refer to anticipated future events and objectives (Nuttin, 1964). These future events and objectives are presented as expectations concerning the future. The knowledge on which these expectations are based plays an important role in the development of future-oriented motivation. The future is created by contents which are unequally distributed and spread along the life line. The contents are also mutually ordered with respect to concrete reference points closely related to the biological and social articulations of the life course. Moreover, intraindividual changes through the life-span can be adequately described in terms of observable changes in future orientation (Nuttin & Grommen, 1975).

The future provides objectives for peoples' motives and also, therefore, contexts for their life planning. How people see their personal future in terms of goals, hopes, threats, and fears has been described in terms of future orientation (Lewin, 1948; Nurmi, 1991; Nuttin, 1984; Poole & Cooney, 1987; Seginer, 1988a; Trommsdorff, Burger & Fuchsle, 1982). However, there seem to be large individual differences in this temporal function of future consequences (Gjesme, 1979; 1983; Heckhausen, 1977; Scheier & Carver, 1985; Scheier, Carver & Bridges 1994; Strathman, Gleicher, Bonniger & Edwards, 1994). Some individuals appear to be greatly affected by goals far away in time. Others seem to be only very slightly oriented towards and affected by events even in the very near future. One of the factors which causes such individual patterns of reaction towards future events might be personal dispositions. The present study is predicated on the notion that there are clear, measurable and therefore predictable

individual differences in the extent to which people are likely to consider distant outcomes in choosing their present behaviour. At one end of the continuum are those persons who consider future outcomes as a matter of course. Such persons appear greatly affected by events and objectives in the distant future. They believe certain behaviours are worthwhile because of future benefits, even if immediate outcomes are relatively undesirable, or even if there are immediate costs. They are willing to sacrifice immediate benefits like pleasure or conventions to achieve more desirable future states. The Yorubas call this people those with "*Aforiti*" (those who persevere). At the other end of the continuum are people who are not interested in considering possible future consequences. Such persons appear more concerned with maximizing immediate benefits at the expense of costs or benefits that will not occur for some time, and they place a high priority on such immediate benefits. The Yorubas call such people "*Eni ti ko ni Aforiti*" (persons without perseverance). This may be because they think that immediate goals are more important. They may also be more strongly influenced by the relatively more concrete and certain immediate consequences than by uncertain, probabilistic future outcomes.

In this study, the relation of personal disposition to future-oriented motivation is examined within the context of the current socioeconomic situation in the country. Orientation to the future occurs within social and cultural contexts that in themselves influence conceptions of what is possible and desirable in the future (Nurmi, 1993; Poole & Cooney, 1987). It would appear however that current conditions in Nigeria make investment

in the future seem incomprehensible. The collapse of socioeconomic structures, the rapid rate of change in value-systems, and the lingering political impasse colours everything and deeply impacts everybody. This much might be reasonably assumed from the enormous attention given to the existential conditions of Nigerians in the pages of the public press (Ake, 1993; Fafowora, 1993; Okediran, 1992; Okumadewa, 1995; Onumah, 1995; Yakubu, 1995). These writers suggest that there has been a massive drop in the quality of life and an increase in unmet aspirations in the life of Nigerians. The disposable income per capita of workers has been severely eroded and the vast majority of the people are living below the poverty line. Consequently, dreams are dying, hopes have been dimmed, and expectations remain unfulfilled. There is shortage of everything except trials and tribulations. The high crime rate and assassinations have resulted in people living under fear with the greatest level of uncertainty and insecurity. Daily life and living has become a formidable challenge and the struggle for existence too absorbing. There is a pervasive air of frustration, helplessness, and hopelessness. A direct support for these observations is provided by Ugorji (1982) who studied the attitude of Igbo rural dwellers to government policies. He reports feelings of ambivalence, alienation, powerlessness, dependency and dissatisfaction among this group of Nigerians. The loss of faith in the collective destiny produces feelings of passivity and ineffectiveness as well as insecurity and pessimism. People may have become so habituated to negativism and their self-esteem so eroded that the future and life in general appear futile. The feeling of resignation to an

uncertain future cuts across all social strata of the society. The result is that people are obliged to live intensely, exclusively and 'exhaustedly' in the present, a present so hectic and dangerous it renders a future implausible. Where hopes are difficult to realize and fears difficult to avoid, people may be pessimistic about their future and therefore pay relatively little attention to it. Cognitively, they may feel trapped in the present not understanding the temporal nature of things. It may even be more difficult for them to envisage distant future consequences.

When the present is beset with uncertainties of intimidating proportions and life appear futile people experience what Frankl (1970) referred to as existential frustration. There is a sense of meaninglessness in so far as people perceive a separation between the present and the future. As people begin to lose a firm hold on their cherished dreams, hopes, and aspirations, they search for meaning in life. Some theorists (Klinger, 1977) suggest that for one's life to feel meaningful one has to become dedicated to a single, consuming, relatively lofty purpose, preferably spiritual. Unlike Frankl, Freud (1927) noted that religion can serve as defense against the forces of privation, and suffering and an uncertain future. Certainly religion fulfills an important role not only as a balm to comfort the distressed or a pillar to sustain the suffering but it also gives meaning and supply incentives to life. Religion can bestow on a person a new sense of values and provide guides for reaching life's important goals. This religious worldview (or vision of life) may allow people the use of energy for personal growth and future planning.

In the light of the foregoing considerations, this study seeks answers

to three interrelated questions: (1) *How far ahead in time do people look for the fulfillments of their life ambitions?* (2) *What are the major concerns Nigerians think will occupy them at future ages?* and (3) *What influence does dispositional and demographic variables have on people's conceptions of the future?*

1.1 BACKGROUND TO THE STUDY

Research concerning the complex processes through which future thinking, personal disposition, and current situations shape individual adaptation are rare. This problem has become particularly salient to psychological research on resilience (defined as positive development in the midst of bad circumstances) and adaptation in the context of harsh life situations. The identification of the needs and concerns of people undergoing socioeconomic strains might help us to better understand normal coping processes. Procedures must be established that allow people to describe their needs and concerns in their own terms. The thrust of this study is that this can be done by assessing peoples' thinking about their future. One of the several ways of looking into the future is to search in the present for indications of the realizations of goals hoped for or feared. Allport (1968) expressed this idea most powerfully when he said that "the most important question we can ask about any mortal is what does he intend for the future."

Nuttin and Lens (1985), suggest that the psychological inability of people to achieve long-term projects is related to a lack of future orientation.

To them, the future is an essential component of a person's behaviour and his behavioural world. The ability to construct far-distant personal goals and to work toward their realization is an important characteristic of human beings. In fact, the orientation to long-range goals, the realization of large and differentiated life projects can be seen as aspects of, and even necessary conditions for, personality integration and maturity. Thus, encouraging the creation of an enabling environment where people believe they have a future to live in and work for may become a crucial challenge for applied psychology in this country.

The way one conceives of one's future is related to goal setting, planning, decision making, and overt behaviour (Lewin, 1951; Heckhausen, 1967; Nuttin, 1964; Raynor, 1974). According to one's future orientation, one may plan certain activities in order to adapt to expected changes in the social environment. These expected and experienced changes, may, in turn, cause changes in one's conception of the future (Trommsdorff, 1978). The prevalent ethos of a nation determines the specific ways in which people perceive and conceive of their needs and desires, and also, therefore, their future. It can be argued that the dire socioeconomic condition in the country may deny people access to socially sanctioned choices and desirable alternatives. As evidence for this argument, note the current state of normlessness, corruption and graft in our society. These may have become prevalent because as people play out the drama of their lives, daily hassles and struggle for survival may preclude long-term planning and decision-making. Not only is hope in the corporate future seemingly lost (Kanu, 1992;

Okediran, 1992; Onumah, 1995), more importantly, peoples' perception of the promises of the future might be constrained. When queried, therefore, they may be able to anticipate the future with accuracy, but their anticipations might tend to be passive and negative. We may have a vague sliding scale focused on the near present in which the future is of a relatively little concern. On the other hand, people may be versatile or resilient enough to weather current harsh life situations by hoping for a better future. For example, focusing cognitive attention on current bad circumstances and blocked goals may impede decision-making, planning, and responsiveness to the future, thereby increasing the person's involvement with the future.

Nonetheless, it is suggested here that people's current life experiences might influence the extent to which they consider future consequences. For instance, a people who experience a dramatic increase in socio-economic status may develop the "luxury" of thinking ahead, rather than being solely concerned with immediate issues such as having enough food. This common sense scenario is in keeping with Maslow's (1970) theory of hierarchy of needs. According to Boniecki (1977) man's interest in his future is correlated to the degree of the satisfaction of his immediate (basic) needs. The more pressing the immediate needs, the smaller the concern over the future. Nuttin and Lens (1985) agree, observing that a lack of future time perspective is characteristic for people interested only in the immediate satisfaction of physiological needs. Persons whose thoughts are centred on day-to-day survival may hardly have the time or the need to think about the future. When they do, it may be in terms of fears concerning their own and

their children's survival. As noted above such future thought may be passive having been left in the hands of beings higher and more powerful than the individual.

Much of human behaviour is future bound (Nuttin, 1964). Current behaviour also have significant implications for the future. Thus the extent to which individuals consider the future implications of current activities can have significant implications for their choice of behaviour and, in the long run, for their life outcomes. For example, advances in medicine have clearly demonstrated the importance of whether individuals think about the long-term consequences of immediate behaviours. Several modern health problems (for example, heart disease, AIDS, and some types of cancer) have now been found to be the direct result of behaviours that may have occurred 10 or 20 years before the onset of symptoms. Thus, many health campaigns now stress the idea that engaging in behaviours such as smoking, drinking, a sedentary life-style, and eating nutritionally unsound foods may carry serious future costs for those who engage in them. One factor that might influence beliefs about personal vulnerability to these diseases, is the extent to which an individual can imagine negative occurrences in the distant future. To the extent that someone generally considers future consequences, s/he might feel more vulnerable to a specific disorder. However, a general tendency to disregard future outcomes may prevent the individual from feeling particularly vulnerable.

Similarly, several studies have reported that students with high grade point averages (GPA) are characterised by a well extended future orientation

(De Volder & Lens, 1982; Lessing, 1968; Teahan, 1958). It appears that when students ascribe higher subjective values to goals in the distant future and higher instrumental value to studying hard for reaching goals in the distant future, they will be more persistent in their daily study and obtain better academic results. It may, therefore, be suggested that one of the reasons why some students get higher grades than others can be found in the fact they are more highly motivated. Furthermore, it may be assumed that such students are more motivated because they consider the long-term consequences of their present activity.

Indeed, thinking and planning for the future are important for several reasons. First, people are faced with a number of normatively prescribed life-tasks (Havighurst, 1974; Neugarten, Moore & Lowe, 1965). Most of these concern expected life-span development and which, therefore, emphasize the importance of thinking about the future. Second, given that our lives are filled with an endless stream of choice points, the selection and pursuit of any one goal may necessarily preclude the pursuit of some alternative goal. Thus future-oriented decisions, such as those related to career, life-style, and self-development, crucially influence later life, by either enhancing or restricting future options. Third, how people see their future plays an important part in personality integration. Research efforts have consistently shown that the content, extension, cognitive and affective representations of future orientation are useful predictors of a wide range of adjustive phenomena, including psychological well-being (De Volder, 1979; Lamm, Schmidt & Trommsdorf, 1976; Pervin, 1989; Wallace & Rabin, 1960).

Indeed, Allport (1968) considered the ability to make decisions and set personal goals a sign of psychological maturity.

There is no single objective standard by which people can judge their future. In lieu of such an objective standard, people evaluate their personal motives by comparing them to societal role options. Thus, sociocultural context influences conceptions of what is possible and desirable in the future (Nurmi, 1993; Poole & Cooney, 1987). It has been suggested that people set future-oriented goals by comparing their individual motives to their knowledge and personal perceptions of future possibilities (Nurmi, 1993; Nuttin, 1984; Poole & Cooney, 1987). By exploring knowledge concerning future options, people are able to work out their interests into goals (Nurmi, 1991; 1993). In addition to goals, fears can be expected to be important for preparation for the future. For example, if they reflect threats for the future, then they can provide a basis for directing behaviour intended to handle the future (Lazarus & Folkman, 1987; Nurmi, 1992). Finally, there are wide individual differences in the subjective probabilities attributed to hopes and fears, and to the future.

1.2 STATEMENT OF THE RESEARCH PROBLEM

As indicated in the various newspaper reports, there seem to be a disharmony between desires and fulfillments in the life of Nigerians (Ake, 1993; Fafowora, 1993; Kanu, 1992; Okediran 1992; Okunmadewa, 1995; Onumah, 1995; Yakubu, 1995). People are becoming increasingly cynical and disillusioned about their future life chances. It would appear that societal

role options and opportunities have lagged behind individual expectations and people seem to have lost confidence in society's approved means of striving to accomplish life goals. Two interrelated logical behavioural consequences relevant to this research could possibly arise from these aforementioned perceptions. The first is the possibility of an inability to defer gratifications and to be oriented towards immediate satisfaction of present needs. The second is the likelihood of an inordinate concern with the material aspects of life. Indeed, there is a general belief, as might be reasonably deduced from the news reports cited just above, that the Nigerian is impatient to acquire material comforts. S/he may be likened to the "ritualist" who becomes so involved in the means that s/he loses sight of, or even renounces, the end. To such persons "high ambitions invite frustration and danger whereas lower aspirations produce satisfaction and security." They thus seek "escape from the dangers and frustration which seem ... inherent in the competition for major cultural goals by abandoning these goals and clinging all the more closely to the safe routines and institutional norms" (Merton, 1959:150).

This is hardly surprising. Where people are denied security of life and property, live under severe forms of deprivation and are beset by uncertainties of intimidating proportions they may experience existential frustration (Frankl, 1970). Forced into an existential position of feeling like it is useless to make plans, people may rely on the now - the new possibility in each new moment. It may even be impossible to plan one's future under such a climate of uncertainty. One manifest implication of these is that

people appear to want their desires gratified within the shortest possible time. Since the needs and desires of people are to a large extent determined by the forms that occur in the culture, one wonders what the needs of Nigerians are at this time. As a corollary to this, the question arises as to what types of anticipations Nigerians have about their personal future. Nuttin and Lens (1985) notes that many anthropological and sociological observations reveal a very restricted future time perspective among people living in unfavourable cultural or socio-economic conditions. It may be realistic for people in such adverse situations to make no plans or behavioural projects for the future. Unforeseeable external conditions, such as unstable political situations, may strongly affect the predictability of their personal future. Thus the future rather than being a field of creative possibilities becomes an object of absolute uncertainty that is passively waited for.

One way in which people appear to be keeping hope alive is by turning to God. Religion, according to popular literature (Amaraegebu, 1995; Kanu, 1992; Okediran, 1992; Okumadewa, 1995; Onumah, 1995), may have become a potent force in the life of Nigerians. The loss of faith in the larger community seem to have resulted in a phenomenal upsurge in religious conversion and devotion. Indeed, Klinger (1977) observed that one of the directions people turn for help in times of hopelessness and meaninglessness is that of religion. A pertinent question here is whether the positive psychological functions of religion generalizes to the way people perceive their future. One might ask: Are the deeply religious more keenly interested

in what the future has in store for them than the superficially religious? Does the life goals these two groups commit themselves to differ?

Unfortunately, the social science literature offers very little in the way of answers to the questions raised above. There appear to be little or no empirical data on the question of just how impatient and materialistic Nigerians really are. Also, there appears to be no empirical evidence on the resilience of Nigerians in the face of the current harsh socioeconomic life situations. Little is known about the way they are adjusting to the complex socioeconomic conditions and still less of what kind of hopes and fears they have concerning their personal and societal futures. The present study examines these issues with respect to future thinking and the achievement of major life goals. Specifically it seeks answers to the question: How far ahead in time do Nigerians look to the fulfillments of their life ambitions?

Apart from this overall research problem, this study will also address the following subsidiary issues:

- What goals and interests do people have in the future? Are there any significant structure in such goals and fears? What order of importance do people assign to these goals and fears?
- How far into the future do people's thinking extend?
- How do people evaluate their chance of influencing expected future events and how do they feel about the future?
- What role does personal disposition and religiosity play in the above? That is, how does individual differences affect people's perceptions of the future?

- Are there age/generational and gender differences in future-oriented goals, fears, and the related temporal extension?

1.3 OBJECTIVES OF THE STUDY

The purpose of this study is two fold. The first is to assess and compare the future orientations of adolescent and adult Nigerians. The second aim is to examine the relationship between personal disposition and future-oriented motivation. Finally, the possible mediating role of religiosity on the relationship between the two is also assessed. Thus the present study, building on previous research in the field, sought:

- To examine the perceptions and aspirations of Nigerians concerning their future.
- To assess the role of personal disposition in the perception of and aspiration concerning the future.
- To assess the mediating influence of age, gender, educational status, and religiosity on the relationship between personal disposition and future orientation.

1.4 SIGNIFICANCE OF THE STUDY

In its broadest conceptualization, the study is aimed at contributing to the growing body of data on issues related to the interaction between the social context and personality. Traditionally, personality has been organized in terms of conceptions of the past. However, personality is also importantly organized by conceptions of the possible or the potential. By exploring the

motives, albeit the future-oriented motives people have, we may gain insights into the dynamics of personality. Thus, the study aims to contribute to efforts that attempt to define personality from future oriented perspectives.

People differ widely from one another in the way they approach the world. Some persons tend to have a favourable outlook, while others have negative set of beliefs. A basic proposition of this study is that these personal dispositions have important implications for the manner in which people regulate their actions and anticipate future events. For example, the extent to which individuals characteristically consider the potential distant outcomes of their current behaviours and the extent to which they are influenced by these potential outcomes can have significant effects on their health outcomes, psychological well-being and other adjustive variables like academic success. Moreover, the current emphasis on preventive health is likely to continue as the importance of preventive care as a cost-effective method of controlling rising health care delivery costs is an on-going process. Such campaigns will benefit from a knowledge of what people plan to achieve and avoid in their personal future. In this regard, it is worthy of note that one area of preventive health behaviour that needs to be more closely examined is how people perceive themselves in relation to their future life chances and the amount of control they can exercise over their own destiny.

In the process of lifelong development, individuals are faced by significant changes in the social and physical environment. At any point in

the life-cycle, the individual has to face changes stemming from the roles of one life-stage to those of the next. People make changes in their commitments and values due to these temporal facts of life. They are thus able, at various stages of life, to articulate clear preconceived ideas and plans for the future. People, are also, by virtue of their different ages and gender, focused on and motivated by different tasks and concerns. Educationist would need to know the tasks and concerns that motivate the different age groups in order to plan curriculums that suit the needs of their students. Similarly development agents such as health workers should be interested in the needs and desires of their target population. For example, the campaign on family planning may be more effective if targeted at those age groups that mention starting a family more frequently as their future-oriented motive.

Most people appear to have expectations about when major events (graduation, marriage, retirement) will occur in their lives. However, very little is known about how these expectations develop and their implications for the self. Questions of timing of life events are central to people's self-concept. Thus the formulation of life goals concern both the young and the old. They are also important in understanding adaptational patterns.

It is a basic premise of this study that understanding a person requires an understanding of his purposes or goals. Areas of applied psychology have long recognized the value of fostering skills involved in clarifying and making progress towards personal goals - that is, educational efforts to motivate independent learning (Gardner & Gardner, 1978); programmes to enhance

worker motivation (Locke, Shaw, Saari & Latham, 1981); clinical and counselling procedures to promote self-direction, self-control, self-help or self-fulfillment (Bandura & Simon, 1977; Kanfer, 1979; Kiresuk & Sherman, 1968; Rogers, 1951).

The study of future-oriented motivation permits insights into social age expectations and the ages at which events and objectives become prominent in people's lives. Thus, the study has the potential to provide information on the preparation and education of youths for the future. Sociocultural changes will increasingly be rapid and interrelated. It is important that indications of the different paces of change in the various domains of life are known. By doing this, the study should inform policy decisions aimed at providing career guidance to youths in our society.

The development of knowledge about how people perceive and act on future possibilities is extremely important. Boniecki (1980) has argued that the time horizon of people must be extended in order to cope with the enormous problems of society. The relation between societal and personal futures must be better articulated. The future goals and fears studied here are of a personal nature. Yet the relation of personal image to the environment as it changes is fundamental to the realistic achievement of those images. There are certain predictable differences between personal and societal values. These differences need to be understood and a realistic approach to possible internalization of planning processes and skills needs to be developed. The cognitive structure related to future time appears to be an internalized aspect of the social pressures and of common expectations

for certain events happening in one's life. This process of internalization and change in perceived future possibilities would merit considerable research, just as people's career planning and social living.

1.5 SCOPE OF THE STUDY

This study examines the future thoughts of adolescent and adult Nigerians. A sample was drawn from the Obafemi Awolowo University Community, Ile-Ife to represent this population. At the initial stages the plan was to involve only students in the study, but when age variation was found to be limited among this population, the scope was expanded to include other population groups in the university community.

Two aspects of future thought were addressed in the study. The first is future orientation which is the dependent variable in this investigation. Future orientation is defined here as a general preoccupation with the future. The second aspect of future thought examined in the study is the personality characteristic to be habitually open and responsive to the future. This is the independent variable under investigation. The central idea undergirding the study is that both personal disposition and future orientation are interdependent systems in the formation of human behaviour. However, the relationships between these two (personal disposition and future orientation) might be substantially mediated by religiosity, age, gender, and educational status. These third factor variables are also regarded as independent variables in this investigation.

In sum, the study is focused on delineating the thematic content of respondents future oriented goals, determining how far into the future they

extend such goals, their emotional attachments to these goals, and how much control they think they can exert on the materialization of the goals. Then the variations of all these as functions of the independent variables - personal disposition, religiosity, age, gender and educational status - are examined and analyzed.

1.6 LIMITATIONS OF THE STUDY

The main focus of this study is the examination and measurement of future orientation and its correlates. However, due to problems of data treatment and management some variables like ethnicity, socioeconomic status, and other personal construct variables are not considered in the study. It is expected that the sampling, and statistical procedures employed will help to normalize the impact of potential extraneous variables like ethnicity, and socioeconomic status among the subjects, thereby reducing their confounding effects.

The site for the study is limited to Obafemi Awolowo University community. The principal reason for this being the huge human, material, monetary, and time costs that a wide coverage of the country would have involved. The use of only the university community means that only literate respondents were involved in the study. This may limit the generalizability of findings since the sample drawn can be viewed as highly selected on this basis. It may also be argued that the data would have been enriched by the inclusion of non-literate people. However, the main mode of data collection was through a battery of self-administered paper-and-pencil questionnaires.

Thus, the problems of translating the questionnaire into the local language (assuming, of course, that people are literate in the language) more than compensate for this obvious limitation.

Future orientation is analyzable into several dimensions. However, for purpose of clarity, ease of measurement and management of data, the present study focused on only four dimensions - content, extension, perceived control and affective tone. These dimensions are the most relevant to the objectives of this investigation. Therefore, the non-inclusion of the other dimensions will in no way affect the ability of the data to provide answers to the research questions.

Finally, one of the control independent variables used in this study is age as it relates to differences in future orientation. Ideally, a longitudinal design may have been more appropriate to fully understand whether an individual's future orientation changes as s/he ages. However, the realistic constraints of this study does not permit that now. Therefore cross-sectional method is used and differences between age groups are taken as indications of age effect. Of course, we are aware that doing this means that cohort and historical time effects may affect the results. To avoid overgeneralization on this issue, developmental trends will not be discussed.

1.7 DEFINITION OF TERMS

In this study the following terms and concepts will be taken to mean the definitions given in this section.

Affective Tone: The evaluative-emotional meaning a person's future

has for him/her. One's feelings about the future.

Content: The specific events and objects a person hopes for or fears in the future.

Dispositional Optimism: A general disposition to view the future in favourable terms.

Dispositional Pessimism: A general disposition to view the future in unfavourable terms.

Extension: The length or depth of future time envisaged by a person. That is, the time span that anticipations are projected into the future.

Fears: Negative future outcomes or threats anticipated. Events and objects that are likely to be avoided.

Future Orientation: Attitudes, judgements and anticipation of future events and objects. The image that people hold concerning the future.

Goals: Hopes and fears for the future are collectively referred to as goals.

Hopes: Anticipated positive future outcomes. Events and objects that are likely to be approached.

Hopefulness: Positive feelings or attitudes toward the future. Positive affectivity of future orientation.

Hopelessness: Negative feelings or attitude toward the future. Negative affectivity of future orientation.

Life Domains: The various aspects of life (such as education, health, property, self) into which thematic content can be classified. In essence, life domains reflect the major normatively prescribed life tasks.

Motivation: Motives, interests, goals, threats and fears (or events and objects) that energizes or arouses behaviour and future thinking. Anticipated future events and objectives, and their related temporal extension.

Perceived Control: The amount of personal control a person feels s/he has over future occurrences.

Religiosity: The intensity or strength of a person's religious devotion and orientation.

CODESRIA - LIBRARY

CHAPTER TWO

LITERATURE REVIEW

The literature review is divided into six sections as follows:

1. An examination of future orientation and its correlates.
2. A discussion of the relationship between personal disposition and future orientation.
3. The third section examines the relation of future thought with religiosity.
4. This section presents a summary of the review of the empirical literature.
5. A review of theories and constructs that aids an understanding of the research field forms the fifth section.
6. This final section presents the guiding hypotheses and operational definitions of the relevant variables.

2.1 FUTURE ORIENTATION

A growing body of literature has been investigating the importance of a construct variously labelled "Future Time Perspective (FTP)" or "Future Orientation" (De Volder, 1979; Nurmi, 1991; Nuttin & Lens, 1985). This literature suggests that views and feelings about the future will affect the manner in which one responds to present circumstances.

Typically, future orientation has been considered as a general

preoccupation with the future or future events. This idea is reflected in researcher's definitions of future orientation and future time perspective. For instance, Kastenbaum (1961) defined future time perspective (FTP) as "a general concern for future events." Wallace (1956) described differences in FTP as "the length of the future time span over which one conceptualizes personalized future events." More recently, Seginer (1988b) suggested that future orientation "pertains to individuals' subjective image of the future, or to their naive theory for predicting the future."

These illustrative definitions amply attest to one fact: researchers find it difficult to agree on the definition of future orientation. This has resulted in differences in the conceptualizations and operationalizations of the construct. The different theoretical and methodological approaches - stemming from psychoanalysis, learning or cognitive theories - to the study of future orientation has both fuelled and deepened this confusion. The result has been a mass of contradictory and inconsistent findings that are difficult to compare and interpret. Closer examination of studies on future orientation and the different measures used (direct and indirect, personal and impersonal; structured questionnaires, tests, and projective measures), strongly suggest that the same label seem to have been used for different aspects of a complex cognitive-motivational system. In several studies only one aspect of future orientation is investigated, implying that that aspect alone constitutes future orientation. Some studies take into consideration only cognitive aspects such as time span or extension and coherence (Sundberg, Poole & Tyler, 1983; Trommsdorff, Lamm & Schmidt, 1979;

Wallace, 1956). Other studies focus on motivational aspects of future orientation measuring subjective needs and the anticipation of need satisfaction in the near or distant future (De Volder, 1979; Gjesme, 1975; Nuttin, 1964). Thus despite the early theoretical conceptualizations (Frank, 1939; Lewin, 1942) of the construct as a cognitive-dynamic variable, it became a very ambiguous one in the research literature. However, more recent reviewers of this research field have begun to admit the methodological advantages of treating future orientation as a multi-dimensional construct (Nurmi, 1991; Nuttin, 1984; Seginer, 1988b; Trommsdorff, 1983). For instance, Nuttin (1984) suggests that future orientation is a multi-stage process that must be conceptualized in relational terms that simultaneously refer to person-related and contextual properties. In the present study, we regard future orientation as a cognitive-motivational construct that can be analyzed according to both cognitive and motivational-affective variables.

As a cognitive variable, future orientation may be differentiated according to the temporal and causal structure and underlying subjective judgements. Thus, such anticipatory schemata can be more or less extended, probable, differentiated, coherent and realistic (Daltrey, 1985; Lewin, 1942; Nurmi, 1991; Nuttin & Lens, 1985; Seginer, 1988b; Trommsdorff, 1983; Verstraeten, 1980; Wallace, 1956). They can also be focused on internal rather than on external causes (that is, the anticipated causality) of future events (Nurmi, 1987; 1991; Trommsdorff, 1983; Trommsdorff & Lamm, 1975). These cognitive schemata are organized and

structured according to the thematic content of the respective anticipations. These specific thematic contents can be categorized according to the life domains they concern (Fricke, 1979; Nurmi, 1989a; 1992; Poole & Cooney, 1987; Seginer, 1988b; Sundberg *et al.*, 1983; Trommsdorff *et al.*, 1979). The affective quality of future orientation can be differentiated into more or less positive or threatening future events. Thus the future can be experienced as more optimistic or pessimistic (Trommsdorff *et al.*, 1982), hopeful or hopeless (Nurmi, 1989b; Teahan, 1958; Trommsdorff *et al.*, 1982), pleasant or unpleasant (Sundberg *et al.*, 1983), and so on. In this investigation, we shall limit ourselves to the thematic content (life domains), extension, perceived control, and affective tone dimensions of future orientation.

This framework forms the basis of the review of studies that follows. Each subsection shall deal with each dimension. In order to give a coherent impression of the research field, only investigations that provide data about these dimensions are considered. First, however, a brief overview of the methods that have been applied in this research field is presented. This is necessary because each method that has been applied was geared towards assessing potentially different aspects of future orientation.

2.1.1 Methods previously applied in research on future orientation

The exceedingly great number of different methods used in research on future orientation can be regarded as the greatest weakness of the research field. Indeed, researchers have suggested that the methods used

lack reliability and validity, and are partly responsible for the conflicting results (Perlman, 1976; Ruiz, Reivich & Krauss, 1967). Referring to the validity problems in this research field, Perlman (1976) suggests that thematic content should always be considered when future orientation is studied. As will become apparent, this is not even possible with some of the methods applied. Methods used have usually followed directly from the operationalizations of the future orientation construct. They thus reflect the dimension(s) measured and to some extent influences how the results are interpreted. In the review that follows, the methods are categorized into the indirect and direct methods for ease of handling.

2.1.1a Indirect Methods

Most of the indirect techniques are more or less projective. These include Thematic Apperception Technique (TAT, Dilling & Rabin, 1967; Goldrich, 1967; Kendall & Sibley, 1972; Roberts & Greene, 1971), Incomplete Thoughts Test (ITT, Greaves, 1971, Krauss & Ruiz, 1967, 1968; Ruiz *et al.*, 1967), Story Completion Technique (SCT, Kastenbaum, 1965; Meade, 1971; Ruiz *et al.*, 1967; Teahan, 1958), and the Motivational Induction Method (MIM, De Volder & Lens, 1982; Nuttin, 1964; Nuttin & Lens, 1985). Respondents have also been asked to write essays/compositions on topics related to future themes (Fricke, 1979; Monks, 1968; Nurmi, 1988). Such essays are then scored for the content and temporal extension. Nurmi (1988) was able to derive affective-tone scores from such essays. He found internal reliabilities of 0.76 for content

categories and 0.84 for affective tone scores. The indirect methods are expected to capture the creative expressions of respondents. From these expressions such characteristics as duration, relative size and number of future tenses are interpreted as indicative of the extension of the respondents' future orientation. However, the results of such studies are hardly comparable, since they differ considerably in the selection of test materials, instructions and coding procedures. They do not seem to provide consistent results hence their near abandonment by researchers in the field. Studies that have used multiple measures have found patterns of data that are not consistent across measures, and studies that have used one measure have tended not to replicate earlier work that had used a different measure. In one study, Lessing (1968) measured temporal extension with the future events test, the incomplete sentences test, and the story completion technique and found that these test had little in common. Similar results are provided by Platt, Eisemann, de Lisser, and Darbers (1971) who used six measures of future orientation. A factor analysis yielded no general factor of future orientation or any that can be interpreted as the dimensions in our model.

A possible exception to the general weak showing of indirect measures could be the Motivational Induction Method (MIM). The MIM was developed by Nuttin (1964) and has since been the major technique employed by himself, his students, and colleagues (Boufard, Lens & Nuttin, 1983; De Volder & Lens, 1982; Lens & Gailley, 1980; Nuttin & Grommen, 1975; Nuttin & Lens, 1985). This technique uses incomplete sentences with

a personal dynamic meaning, such as "I plan ..." or: "I wish ...". This sample of respondent's motivational objects and goals are localized in time on the basis of a more or less differentiated temporal scale by trained judges. From these the temporal extension of the respondent's future orientation are calculated. Although the technique collects motivational objects and goals, these are not analyzed for their thematic content. The MIM appears to have good psychometric properties (Nuttin & Lens, 1985). However, the coding system is tedious and cumbersome. In fact the whole coding process and interpretation leaves too much room for bias, since the investigator practically has to decide what respondents had in mind.

2.1.1b Direct Methods

A few studies have also used interview techniques. For example, Krauss and Ruiz (1967) and Cameron (1972) used interview methods in which the respondent was simply asked to tell a story about him/herself, or what s/he was thinking about. The frequency of the difference between present and future tenses was taken as indicative of extension. Other interview techniques have included the expected future events interview (Vincent, 1965), the future events interview (Klineberg, 1967), and the hopes and fears interview (Nurmi, 1987b, 1989b,c). The later two have been made into questionnaires. Interview methods being very flexible and direct have been used to assess all the dimensions (content, extension, causality and affect) presented in our model but not in a single study. However, some doubt has been thrown on their results. Sechrest (1968)

suggests that interview data can be affected by level of verbal fluency.

The direct methods also involve the use of questionnaires which are usually designed to measure the dimension(s) that is the object of the author's investigation. The structured questionnaires need not concern us here as most of them were designed to measure future orientation as a personality trait. The unstructured scales can be categorized into two broad groups, both of which are however variants of the Wallace Open Event Test (WOET, Wallace, 1956; Wallace & Rabin, 1960). These are the Future Events Questionnaire (FEQ, Greene, 1986; Lessing, 1972; Poole & Cooney, 1987) and the Hopes and Fears Questionnaires (HFQ, Gillies, Elmwood & Hawtin, 1985; Lamm, Schmidt & Trommsdorff, 1976; Nurmi, 1992; Nurmi, Poole & Kalakoski, 1994; Trommsdorff *et al.*, 1979). Typically, these questionnaires measure future orientation by asking respondents what kind of hopes and fears (Nurmi, 1987b; Trommsdorff, Burger & Fuchsle, 1982) or expectations (Mehta, Rohila, Sundberg, & Tyler, 1972) they have concerning the future. Usually, 10 lines are then provided for the respondents to write down their hopes and another 10 lines for their fears. The content of these hopes, fears and expectations is analyzed by classifying them according to the topics (domains of life) they concern. However, the domains used have varied from one study to another. Temporal extension is studied by asking respondents to estimate the time they expect the hopes, fears, and expectations they have listed will be realized (Wallace & Rabin, 1960). Extension is then scored either (a) by the age of the subject at the moment of the realization of the hope (Wallace,

1956) or (b) in years from the time of the study to the point of time the hope is expected to be realized (Trommsdorff *et al.*, 1979). These indexes appear problematic in many respects. The most extended goal may not necessarily be indicative of adequate cognitive structuring of the future. It would seem that computing the mean score of the differences between the estimated age at realization and actual age at present for each life domain will be a better index of extension. This index is used in this study.

Causality (perceived control) of future anticipations have usually been measured by asking respondents to rate the extent to which they believe they can exert control over the realization of their hopes and the prevention of their fears (Nurmi, 1987b; Trommsdorff *et al.*, 1982). Affects concerning the future have been measured using a variety of methods. Some investigators (Trommsdorff *et al.*, 1979) have employed Cantril's (1965) Self-Anchoring Striving Scale. Others (Monks, 1968; Nurmi, 1988) have assessed it by analysing the content of written essays. Affects have also been measured by asking people to rate the likelihood of the realization of their hopes (Trommsdorff *et al.*, 1982), or by asking them to evaluate their overall hopefulness concerning the future (Nurmi, 1987b). The relative proportion of future events rated as pleasant compared with those rated as unpleasant has also been used (Poole & Cooney, 1987). All these indices have proved problematic in the past. A more elegant index might be simply dividing the number of hopes mentioned by the total number of goals (hopes and fears) mentioned by the respondent. This index is used in the present study.

One of the major attractions of the Open Events Questionnaire is its flexibility. This makes it comparable to methods used in the analysis of other personal action constructs (Little, 1993). By direct solicitation of a person's hopes and fears the likelihood is that personally relevant goals will be elicited. Although these goals are idiographic, they can serve as the units upon which more abstract level analysis can be done. For instance, the ability to code the goals into categories will enable researchers to traverse the territory between idiographic and nomothetic levels of analysis. Also, even though the motivational contents of the goals are idiosyncratic, they can serve as modules that may be appraised by respondents on several important dimensions along which goals can be described. Thus, respondents can be asked to rate the elicited goals on a number of properties or dimensions such as realism, importance, attribution, value, probability and so on. If well constructed such a scale could yield data that can be employed in both within-subject and between-subject comparisons. For example, a person's appraisal of his/her goals on all the dimensions can be taken and we note the amount of control or how realistic s/he views his/her future. Such mixed idiographic-nomothetic measures should be of clinical value. The more conventional normative use of the scale will involve the comparisons of individuals on the various dimensions. This has been attempted with some degree of success with other mixed idiographic-nomothetic measures of motivation (Emmons, 1986; Emmons & McAdams, 1991; Klinger, Berta & Maxiner, 1981; Little, 1983; Wadsworth & Ford, 1983). Another possibility with such a flexible method is that the elicited

goals taken together can be assessed for their level of differentiation, abstractness, complexity, clarity, specificity and so on. These are crucial structural attributes of goal systems that can illuminate personality processes and that may relate differentially with measure of psychological well-being (Emmons, 1992; Little, 1989).

The method is, however, not without a few drawbacks. First, these questionnaires yield relatively basic information on future orientation. No studies involving all the main dimensions of future orientation, content, extension, control and affects and the third factor variables have been carried out by means of the method. The problem has been the inability of investigators to adapt the questionnaires as outlined above. Second, the methods and even the instructions used vary to a great extent from one study to another. This lack of standardized methodology can become a hindrance when comparing results across studies. Finally, the methods are susceptible to errors related to respondents' verbal and writing abilities. One way of overcoming this last problem is to validate responses against nomothetic scales.

2.1.2 Thematic Content

Future orientation is a motivationally based complex multidimensional construct that can be analyzed primarily on the basis of its thematic content. According to Frank (1939) an individual may develop a variety of future orientations, each applicable to a different aspect of living, so that s/he may view economic events in one component, political in another, social in

another, sexual in another and so on. Despite this early recognition of the central role of thematic contents in the analysis of future orientation, subsequent studies failed to study this dimension on its own merit. Nuttin & Lens (1985) agree that future orientation cannot be conceived independently of its content, since its temporally localized events and objects are the basis for the analysis of the other dimensions. Nevertheless, in their own and their colleagues' works, content is applied only to the extent that it helps in the operationalization of other dimensions of future orientation (De Volder & Lens, 1982; Lens & Gailly, 1980; Nuttin, 1964; Nuttin & Grommen, 1975; Verstraeten, 1980). This general orientation has been followed by other investigators in this research field. The net result has been that although content is frequently employed in the operationalization of future orientation's cognitive and affective components, only a few investigators have studied it directly (Monks, 1968; Nurmi, 1991; Nurmi, Poole & Kalakoski, 1994; Poole & Cooney, 1987; Seginer, 1988a & b; Sundberg *et al.*, 1983; Trommosdorff *et al.*, 1979). Thus the role of thematic content has become rather ambiguous in much of the extant literature. A systematic study of the thematic content of people's future orientation would provide knowledge of what interests and/or worries they have about the future. In addition, thematic content can be analyzed and investigated with relation to differential variables in research on other dimensions of future orientation. For example, although age and gender variations in temporal extension have been reported, the pattern and domain is still not clear. A probable solution is to analyze this dimension according

to the life domain (content category) it relates to. Thus, for example, it will be possible not only to know that females have a more extended future orientation but also the particular domains in which females differ from males in temporal extension. The study of future orientation as a subjective theory to predict the future and prepare for it should start with the description of its content and focus on the analysis of its thematic structure. To pursue this analysis the present study addresses the question of which life domains are most prominent in the spontaneous future thought of Nigerians. This focuses on the content categories, or *life domains*, which make up peoples' representation of the future.

Typically, the content of future orientation has been investigated by analyzing the goals, hopes, threats, and fears mentioned by people in thematically relevant content categories (Mehta *et al.*, 1972; Nurmi, 1987a, 1992; Nurmi *et al.*, 1994; Poole & Cooney, 1987; Seginer, 1988a; Trommsdorff *et al.*, 1982). Such themes may closely approximate the various aspects of life and living and are therefore referred to here as life domains. This is one approach to the categorization of self-articulated goals that is firmly based within the socio-cultural context of people's lives which prescribes a set of age-graded tasks that are normative (Cantor & Kihlstrom, 1987; Erikson, 1950; Havighurst, 1953). In the context of this investigation, therefore, a life domain is defined as a set of goals that the person spontaneously report him/herself devoting energy to solving or aspiring to achieve during a specified period of life. This is to differentiate our categories from social motives, into which self-articulated goals can also be categorized

(Emmons, 1989; Emmons & McAdams, 1991; McAdams, 1980). There has not been a clear distinction between these two systems of categorization in the literature. Trommsdorff *et al.* (1979) and Fricke (1979) made no such distinction, lumping such categories as self-actualization, self-disclosure, and family under the heading domains of life. Sundberg *et al.* (1983) who made the distinction, called one primary categories and the other secondary categories and went ahead to employ both systems. This lack of a common classificatory criteria has partly contributed to the difficulty in comparing results across studies.

The content categories used vary from one study to another. The most frequently occurring ones include occupation/profession, education/schooling, leisure activities, family/marriage, property, health and self (Cantor *et al.*, 1986; Nurmi, 1987a; 1992; Trommsdorff *et al.*, 1982). However, there has been no generally accepted coding scheme in the research field. Some workers (Trommsdorff *et al.*, 1979) limit themselves to a small number of pre-determined and defined categories. Other investigators (Fricke, 1979) code according to an apparently inexhaustive groupings in which such items as 'revealing name to tester' becomes a major category and financial affairs and material needs are separate domains of life. Although the majority of workers in the research field seem to have settled for 10 easily recognizable content categories or life domains, the definitional criteria for coding into each of these categories is not consensual (Nurmi, 1987a; 1992; Nurmi *et al.*, 1994; Poole & Cooney, 1987; Seginer, 1988a). Also, the number of life domains people spontaneously report themselves

striving in or in which they perceive themselves trying to accomplish something has not been conclusively established. Finally, although a few investigators provide data on rater reliability, the consistency of these 10 categories has not been adequately documented cross-culturally (Nurmi, 1987b, 1992, Nurmi *et al.*, 1994; Poole & Cooney, 1987; Seginer, 1988a). These issues need to be resolved so that the utility of these content categories in experimental and differential research will be effectively demonstrated. Also, a thorough documentation of the properties of life domains will contribute to our understanding of the meaning, direction and boundaries of what people know of their potential, what they plan to accomplish, and what they fear for their future and the meaning and features of motives that are important in life-span developmental transitions.

A recent concern of research has been to define a level of analysis that would provide the most adequate unit for studying personality in a social context (Cantor *et al.*, 1991; Emmons, 1989; Little, 1983; Nurmi, 1992). One promising approach to this interactionist mandate is to focus on self-articulated personal goals. This is perhaps due to the fact that personal goals are an individual's interpretation, construal, and personalization of normatively prescribed life goals. They are also things that people see themselves as working on and caring about in their current lives (Pervin, 1989). Earlier, Pervin (1985) advised that efforts to investigate meaningful aspects of people's lives and personality integration should emphasize goals and other concepts that show a potential for relating cognitive and affective-motivation variables. He argued that it is only through such efforts that

meaningful aspects of people's lives can be fruitfully investigated since individuals select and structure situations in terms of their own personalities. Although researchers appear to have heeded this advice, they have applied a vast range of concepts. These include *current concerns* that consume people's thoughts and guide their attention selectively (Klinger, 1977); the *personal strivings* that motivate their activity choices and behaviour (Emmons, 1986); *personal projects* that organize actions in the service of a desired outcome (Little, 1983); common age-graded *life-tasks* which individuals pursue in unique ways (Cantor & Kihlstrom, 1987); *future-oriented goals* which are anticipated, future events and objectives that provide the context for life planning (Nurmi, 1989a, c); and *possible selves* which are the components of the self-concept that reflect individual's perceived potential (Markus & Nurius, 1986). Although these various perspectives approach goals from somewhat different angles, they share the basic assumption that personal goals are a set of very salient action constructs in people's lives.

Similarly, psychologists interested in the principles of self-regulation, especially the nature of motivated movement relative to represented end states, propose that the self-regulatory system can have either a desired end state (that is, a positive reference value or goal) or an undesired end state (that is, a negative reference value or fear) (Bandura, 1986; Cantor & Kihlstrom, 1987; Carver & Scheier, 1990; Kuhl, 1984). In the body of this literature hopes or positive reference values has been variously referred to as the type of person individuals would like to be or the type of person they

believe they should be (Cooley, 1964; Freud, 1961; Higgins, 1987; James, 1948; Markus & Nurius, 1986; Rogers, 1961; Schlenker & Weigold, 1989). Self theories have also described negative reference values or selves in self-regulation, such as Erikson's (1963) "evil identity," Sullivan's (1953) "bad me," and Markus and Nurius's (1986) "feared possible self". Although some theoretical distinctions have been articulated among these several goal-type concepts (Emmons, 1989), their practical differences are negligible (Omodei & Wearing, 1990). To date these goal-type constructs share a common focus on an ongoing or future orientation.

Despite their differences in terminology, all the concepts just mentioned are used to refer to self-articulated hopes and fears. They (1) are based on comparison between abstract individual motives and knowledge of future options; (2) refer to some culturally defined tasks or challenges; (3) provide a basis for motivated behaviour in specific situations; (4) are realised by means of different cognitive and behavioural strategies, and finally, (5) are affected by individual's selective attention. We will now review findings relevant to the variables - hopes and fears - identified above.

2.1.2a Personal Hopes

People structure much of their daily lives around a set of personal goals that represent what they are currently striving to achieve or aspiring to become (Cantor *et al.*, 1986; Emmons, 1986; Klinger, 1977; Little, 1983). Because personal goals mark what a person is generally attempting to accomplish in daily life, they can identify those events and objects in

which the person will be more highly invested in the future. In the development literature, theorists have assigned personal goals a prominent role in motivation. Hopes are defined as those things an individual spontaneously report him/herself wishing to achieve or accomplish in the future. The definition of hopes adopted in this study is used extensively in the social and personality literature (Emmons, 1989; Pervin, 1983). Among personal hope attributes are that the unit (a) emphasizes motives or incentives as they are construed by the individual; (b) is integrated in terms of allowing access to cognitive, affective and behavioural realms, and (c) is inherently temporal and interactive in that it views the person squarely in his/her context over time. All these properties also hold true for personal fears, which we shall discuss below. In the review that follows we shall organize the material according to major age groups: adolescents, and adults, for the purpose of clarity and due to availability of studies.

We take as our point of departure the few Nigerian studies that provide some indirect information on future-oriented hopes or goals. One of these is the study on the thinking of Nigerian adolescents (Akinboye, 1985) in which the respondents were asked the question: What are your plans for the future? Although this study is difficult to evaluate due to a host of methodological problems, it allows a tenuous glimpse of the future-oriented hopes of adolescents in Nigeria. Of the 20 statements provided as the answers given to the above question by the over 5,000 participants, 10 are related to future vocational/occupational goals, 3 to the acquisition of wealth and property, and 2 each to education and marriage. The remainder of the

statements are evenly distributed among family, religious, interpersonal, self, and social service related goals. This, of course, is a recoding of Akinboye's (1985) results since these statements were not categorized according to a generally accepted or easily recognizable criteria. Nonetheless, it would appear that Nigerian adolescents envisage acquiring high economic status through high paying occupations which would enable them to acquire material comforts after which they expect to set about raising a family of their own. Education does not seem to be very high in the preoccupations of these Nigerians. Since we do not know the ages of these adolescents it is difficult to ascertain, with a fair degree of confidence, whether these future-oriented hopes are realistic or not. The above observations are therefore somewhat speculative given the limitations of the data on which they are based.

Reports from elsewhere indicate that other African adolescents have similar sets of future-oriented goals. However, the order and weight given to these hopes seem to differ from those reported for Nigerian adolescents (Akinboye, 1985). For example, Fricke (1979) reports that Liberian adolescents aged 10-20 years plan to finish their education, get a good job and then marry and raise their own family. The other less commonly mentioned hopes that occupy the minds of these young Liberians are those related to the extended family, national issues and politics, self, religion, and material needs in that order. A very similar result is provided by Bentley (1983) who compared the future-orientation of Swazi and Scottish adolescents aged 12-25 years. He found that Swazis did not differ much

from Scots on the emphasis given to educational and occupational goals. Other American and European studies are almost uniform in reporting education and occupation as the most frequently mentioned future-oriented hopes of adolescents. For example, Monks (1968) reports that the most frequent statements in the written essays of Dutch adolescents were those referring to school and vocation. Similar results were found in a number of studies using different types of method (Gilles, Elmwood & Hawtin, 1985; Messiner, 1961; Nurmi, 1987b, 1989b; Poole & Cooney, 1987; Seginer, 1988a & b). The evidence appear to point to the fact that these are universal hopes. All the studies show an unexpected similarity in adolescents' interests in this respect: they all seem to be most interested in two main domains of their future life, work and education. This is in contrast to many other contents of thinking about the future as will become clear below. This fact is further buttressed by the results of cross-cultural investigations of adolescents' future orientation (Mehta *et al.*, 1972; Nurmi *et al.*, 1994; Solantus, 1987; Sundberg *et al.*, 1983). The same results occurred when adolescents from countries with wide socioeconomic differences (developed versus developing countries) are compared. Since education and work play a crucial role in expected life-span development in all the cultures involved in the research, these results are not so surprising. All the adolescents participating in the studies reviewed were at school and this may partly explain these similarities of interests across cultures. However, one should not loose sight of the fact that in Akinboye's (1985) report, Nigerians seem to rate material goals higher than educational goals. This result may have

been confounded by the methodology employed by the investigator. In any case, a more rigorous investigation will clarify this issue.

The next most common topics that adolescents are interested in are future family and marriage, leisure activities, and the material aspects of life (Gillies *et al.*, 1985; Gillispie & Allport, 1955; Monks, 1968; Nurmi, 1987b; 1989a; Seginer, 1988a & b). However, the results vary to a great extent according to a number of variables such as age, gender and culture (Gillispie & Allport, 1955; Mehta *et al.*, 1972; Solantaus, 1987; Sundberg *et al.*, 1983). A number of cross-cultural studies show that in contrast to Anglo-American and European cultures where adolescents frequently express interest in their personal happiness, future family, and leisure activities, adolescents from traditional cultures, such as India, are more oriented to their parents' family, the health and death of others, the marriage of others, and societal topics (Gillispie & Allport, 1955; Sundberg *et al.*, 1983). A different pattern emerges, however, when Anglo-American cultures are compared with rapidly urbanizing countries undergoing transition such as Nigeria. Tallman, Marotz-Baden, and Pindas (1983), for example, found that Mexican adolescents placed greater value on material advancement and emphasized saving and retraining to a greater extent than marriage and children compared with American youths. Poole and Cooney (1987) found similar types of differences between Singaporean adolescents and Australian youths, as did Seginer (1988a) between Jewish and Arab adolescents. Thus, even though education and career are dominant topics in adolescents' future outlook in all cultures, they have an especially important role for youths in

rapidly changing societies. One possible reason for this is that formal education provides better opportunities for real social success in such countries. It is worthy of note that the adolescents involved in Akinboye's (1985) study seem already to be looking beyond education to the economic status and material advancement that will accrue to them as a result of their educational qualifications. However, in order to better understand this hypothesis, a direct study of adolescents' future oriented-motivation is called for.

Studies based on age-group comparisons show that as adolescents grow older they become increasingly interested in their future education, occupation and family (Gillies *et al.*, 1985; Messiner, 1961; Nurmi, 1987b; Solantaus, 1987; Trommsdorff *et al.*, 1979). Nonetheless, these results suggest that adolescents' hopes concern the major developmental tasks (Havighurst, 1974) of late adolescence and early adulthood, such as future education, occupation, family, and material aspects of their future life. Interestingly, when Dreher and Oerter (1986) asked adolescents directly about their thoughts on developmental tasks, they found that young people, at the ages of 15 and 16, were aware of them and also consciously active in coping with them.

Even though there is an increasing interest in self-articulated goals, empirical research on adult life-goals are scarce. As is commonly the case in other research fields in psychology, adolescents and young adults appear to be the favourite population of study among future orientation investigators. While there appear to be a sizeable number of reports on the

hopes of young adults, very little seem to be available on the other periods of human life-span. Again we begin with available studies on the hopes of adult Nigerians. Togonu-Bickersteth (1987) in an interview study on chronological definitions of old age, asked young adults (aged between 18 and 35 years) the joys of (that is, their hopes for) that period of life. In essence, the respondents were asked to envisage a particular point in their life-span still ahead of them. Thus, even though the study did not have future orientation as its main focus, the answers to this one question may be taken as future-oriented. Togonu-Bickersteth (1987) found that these young adults valued parenthood, grandparenthood, property (finance), leisure activity, and status in that order. A major problem here is that these categories do not follow generally accepted classification criteria, even then, no rater reliability is provided for them. Aderinto (1989) sampled a similar population and asked them directly about their perceptions of developmental tasks. One of the questions: what participants expected to be important in their future, appear relevant to our investigation. Answers to this question indicate that young adult Nigerians saw employment, marriage, education, children, politics, and wealth/property, as hopes currently important in their lives. Although, Aderinto (1989) used Havighurst's (1974) developmental tasks categories as his classificatory criteria, the definitional criteria for coding into these categories are not clear. Also, there is a lack of information on the rater reliability of the categories and the consistency and relevance of the interview schedule. Essentially, the same result as above is provided by Ugorji (1982) who interviewed Igbo rural dwellers about their aspirations.

He found that this group of Nigerian adults hoped for material advancement (better living and housing), health, education, children, and social and political responsibility.

No matter the methodological weaknesses of these investigations, one may reasonably surmise that Nigerian adults' future-oriented hopes centre around themes of work and love (Smelser & Erikson, 1980). If work is thought of as task-oriented behaviour focusing on achievement and accomplishment, then it would appear that this age-group of Nigerians are just as materialistic as the adolescent cohort. Every other goal—education, employment, politics, even the concern for own children's welfare, are seen as a means to acquiring wealth and property. Results from other countries (Cameron, Desai, Bahador & Dremel, 1977-78; Cross & Markus, 1991; Nurmi, 1992) are very similar, except for the theme of materialism that appear to be peculiarly given higher ratings by Nigerians. Since these later reports deal with age differences in adult goals they will be examined in greater detail below. A possible exception is the work of O'Brien and Conger (1991) who investigated the future life orientation of community dwelling, active Americans aged 55 to 85 years. The results indicated that these late adulthood people frequently mentioned leisure, volunteer work (social service), health (physical fitness), and travel as their most valued hope. These results must be viewed with some degree of circumspection as the population sampled is highly selected. Also, there is no information on the reliability of instruments and responses. Finally, the definitional criteria for coding into these categories are not clearly stated. Nonetheless, the results

appear to be in the general frame of those provided in the age differential studies mentioned just above.

Based on the results of the studies reviewed here it is possible to make a general statement concerning hopes based on normatively prescribed age-graded developmental tasks (Havighurst, 1974; Neugarten *et al.*, 1965; Levinson, 1986). That is, people's future-oriented hopes should reflect the major life goals of their own age. This statement may be broken down into four specific hypotheses based on the different life stages: (1) Adolescent hopes should concern the major developmental tasks of late adolescence and early adulthood, such as future education, occupation, family, and the material aspect of life; (2) The hopes of young adults should be related to the life-tasks of that age, such as getting started in an occupation, selecting a partner and starting a family, rearing children, and finding a congenial social group; (3) People's hopes during middle age should be related to the maintenance of performance in various roles such as occupational, family, marital, parenthood, and peer relationships; and (4) During late adulthood, people should be adjusting to decreasing physical strength, retirement and a reduced income, and the possibility of death.

2.1.2b Personal Fears

As a negation of hopes for the future, people are also preoccupied with the occurrence of events they look on as threatening. Such events are based in reality, partly arising out of non-normative challenges in the life course. We choose to call these events fears. Fears are here defined as

those things that are threatening to or that the individual will like to avoid in the future. As observed above emphasis in the literature on future orientation has been given to how adolescents see their future. The content of adolescents' fears and worries varies according to a number of factors, such as age, culture (Solantaus, 1987), and methods used (Nurmi, 1988). A few researchers have attempted to measure directly the fears of adolescent Nigerians. Although the studies pose some difficulties of interpretation and evaluation due to their methodological problems, they provide some insights on the self-reported fears of this group. Samaan and Samaan (1974) compared Nigerian and American adolescents aged between 14 and 23 years on spontaneously reported fears and worries. Their measure was a single Incomplete Sentence: "I am most frightened by" The respondents were invited to list as many of their major fears as possible in response to this one item. The authors claim that due to the exploratory nature of their study, the need to assess the validity and reliability of this measure is obviated. This may also explain their inability to assess the reliability of responses and the coding procedure. Also Samaan and Samaan (1974) made no attempt to classify the responses on the basis of an *a priori* or generally accepted set of categories, claiming that there was no need for such a rigorous undertaking. Another problem with the report is that rather than compare Nigerians as a group with their American counterparts, the investigators decided to split the Nigerian sample into what they referred to as the "Igbo" and "Kano" samples. The value of this cultural distinction is doubtful as the Nigerian samples is obviously ethnically mixed. Even more

disturbing is the fact that the data on which the report is based were collected in different years in the different locations: that for the "Igbo" sample was collected in 1966, the "Kano" in 1971 and the American in 1972-73. It may be argued that different historical effects may have confounded the results. Finally, the Americans were of a relatively younger ages (14-18) than their Nigerian counterparts.

Samaan and Samaan (1974) found that their respondents generated on the average 4.6 fears, but that Nigerians produced significantly less fears than the Americans ($M = 3.8$ vs 6.0 , respectively). The most common fears reported related to death, education, interpersonal, health, occupation, and family. Americans significantly expressed more fears in these domains except education and health and interpersonal (in which Nigerians expressed more fears). The Nigerian part of Samaan and Samaan (1974) study was replicated by Wilson (1986) who employed a Likert-type questionnaire based on Wolpe's (1973) Fear Survey Schedule in a study of the self-reported fears of 13-16 year-old adolescent Nigerians. She reported a global fear of the future in addition to fears related to education (school failure), interpersonal (evil people) and unemployment. Most of these fears, particularly those related to education and unemployment, were in a fact subsumed under the general rubric of fear of the future. Wilson's (1986) instrument is of questionable psychometric value having been employed in a setting other than that for which it was developed. Its usefulness in the assessment of the fears of normal groups of people is doubtful since even the adapted version used in the study was designed for use on clinical population. Thus, most

of the fears reported are neurotic in nature, such as maladaptive fears, animal, social, or superstitious phobias.

The above results indicate that the fears of Nigerian adolescents are related to their future education, occupation, health, own family and the extended family, and interpersonal relationships. Cross-cultural comparison of the future-oriented fears of 13-17 year-old Finnish and Australian adolescents present direct support for this (Nurmi *et al.*, (1994). Although they noted some cultural differences, their main findings are that adolescents in both countries most frequently mentioned fears related to future occupation, education, own health, global issues (wars, famine, disasters), and family/marriage. The rater reliability of their measure (the hope and fear questionnaire) which is similar to the one used in the present investigation ranged from 91% for hopes to 93% for fears. However, the investigators did not indicate the mean number of responses generated by their respondents. This information is supplied by Nurmi (1987b, 1989a) who reported that Finnish adolescents on the average mention 3.45 goals and 2.25 fears. The categories of fears reported in these and other studies (Poole & Cooney, 1986; Seginer, 1988a, 1992) are in the main very similar to those already listed and therefore do not bear repeating. Furthermore, the results of the cross-cultural studies reviewed previously (see Section 2.1.3a) are all in accord with these findings. These later group of studies all noted interesting socio-cultural similarities and differences which may be reflections of variations of societal options and cultural values.

In sum, adolescents seem to worry about two major topics. First, they

have been shown to express a number of worries and fears related to normative life goals (Nurmi, 1991). These include unemployment (getting a job) and a good education, and starting a family. For example, the threat of unemployment (Gillies *et al.*, 1985; Samaan & Samaan, 1974; Solantaus, 1979) and school failure (Samaan & Samaani, 1974; Wilson, 1986) have been shown to be reflected in their thinking. Second, adolescents seems to be concerned about the non-normative events related to their parents and present family. For example, American and Caribbean adolescents have been reported to worry about the health of their parents. Russian children worried more about the possibility of their parents' divorce (Chivian *et al.*, 1985; Payne, 1988).

Since information on the other generations (young adults, middle aged, and late adulthood) are scarce they are reviewed together. Togonu-Bickersteth (1987) in the study mentioned previously, report that young adult Nigerians dread the loss of vigor and strength, chronic illness, death, and widowhood and loneliness in their old age. Nurmi (1992) reported that young adults were most concerned about matters related to themselves and their friends. Cross and Markus (1991) reported a similar finding. Specifically, their young adults frequently mentioned fears related to personal topics. The middle-aged and late adulthood people have fears related to their occupation and health (Cross & Markus, 1991; Dittman-Kohli, 1989; Nurmi, 1992).

As noted earlier there is a wide gap in knowledge about the fears of adult populations. The few available studies present with various methodological problems. One important weakness common to several of

the studies is that concepts are neither precisely defined nor measured. Furthermore, the measures employed in several of the studies suffer from inadequate standardization. Finally, most do not report important statistical data such as response reliability and mean number of responses. The variability of methodology (designs and measures) makes it difficult to compare various findings or to draw conclusions of a general nature from them. Nevertheless, it seems that the content of peoples fears reflect the normative life-tasks of their own age and culture.

As in the case of hopes, the above statement can be broken into four specific hypotheses: (1) Adolescent fears should centre around the major developmental tasks of late adolescence and early adulthood, such as future education, occupation, family, and the material aspect of life; (2) The personal fears of young adults should be related to the life-tasks of that age, such as occupation, family/marriage, children, and interpersonal relationships; (3) The middle aged would evince fears related to occupation, family/marital, parenthood, and interpersonal relationships; and (4) late adulthood people should be concerned about their health, income, dependence and death.

2.1.2c Age Differences in Future-Oriented Goals

The framing of personal events along the life course is believed to be significantly influenced by age. The meaning that people attribute to different events and life domains as they age seems to us of utmost importance. For instance, topics mentioned by adolescents in the family domain will likely not

carry the same meaning or even the same emotional tone as those nominated by young adults. It is also possible that as people grow older they begin to renounce those goals that are perceived as belonging to life already lived (that is, goals of a past age or generation) even when those goals have not been successfully achieved or avoided. Within the life-span literature, a number of theories and findings imply that a recalibration of one's future-oriented goals may indeed be a key to continued well-being. Thomae (1970) argues that an important factor in adjustment to aging is the restructuring of cognitive schemas to achieve a greater congruence between desired and achieved goals. Campbell, Converse, and Rodgers (1976), in examining a representative cross-section of Americans, suggest that age-related decreases in aspirations may be responsible for the increase in life satisfaction they found among older adults. Cross and Markus (1991) report a linear decline in the number of possible selves with age. Similarly, Nuttin and Grommen (1975) showed that while references to retirement, leisure activities, death, religion, and interpersonal contact increases with age, those goals related to self and property/possessions remain to some extent constant throughout the life span. Finally, references to occupation, marriage, family life and property appear highest among the younger age groups. Nonetheless, the nature and direction of age differences in future-oriented goals remain to a large extent far from being fully explicated and understood. This may be a direct consequence of the fact that very little research has been carried out so far on generational differences in personal hopes and fears.

In one of the few reports on age differences in goals from Nigeria, Aderinto (1990) demonstrated that young adults aged 18-35 years had a significantly higher level of educational aspirations than their middle aged counter-parts within the age range of 35 to 60 years. The age delineation apart from the obvious overlap, appear not to be methodologically appropriate as it disregards theoretical demarcations of the life span. In spite of this limitation, Aderinto (1990) succeeded in giving empirical backing to what must be intuitively apparent to even the uninitiated. This report is too narrow in focus having concentrated on only educational aspirations. Reports from elsewhere are broader in focus and more methodologically rigorous. However, most of them compare only two age groups. For example, Wadsworth and Ford (1983) compared students (aged 20 to 27 years) to blue collar workers (aged 55-62 years) on personal goal patterns. They found that students placed greater emphasis on work and school life, whereas the workers had a higher proportion of family and material/environmental related goals. There were no significant differences between the two groups on goals related to self (personal growth and development) and leisure activities. Cameron et al. (1977-78) found that young adults' future expectations concerned schooling, marriage and work. Whereas middle-aged expectations were related to work, vacations and retirement, those of late adulthood people were related to retirement and personal death. Cross and Markus (1991) found a similar pattern of age differences in hoped-for and feared possible selves. Nurmi (1992) compared the future-oriented hopes and fears of young adult, middle-aged and late

adulthood Finns. He showed that adults' hopes and fears reflected the normative life-tasks of their own age. Young adults frequently mentioned future education and family-related hopes. The middle-aged had hopes related to their children's lives and property. The late adulthood people were interested in their own health, retirement, leisure activities, and the world. With regard to fears, Nurmi (1992) found that young adults frequently mentioned fears related to themselves and their friends. The middle-aged and late adulthood people had occupation- and health-related fears, respectively. Dittman-Kohli (1989) investigated people's fears, desires, and goals, but only young adults and late adulthood people were compared. Nevertheless similar patterns of results were apparent in her study.

Most of the studies reviewed here included only one or two age groups in their comparisons, and since they are all cross-sectional the trend in the increase and/or decrease in the interest of people in the different domains of life is still very uncertain. Given the lack of uniformity in definitions, measurements and other methodological problems, the data they present are to some extent contradictory and inconsistent. Nonetheless, some tentative deductions can be made that: (1) People's future expectations reflect the normative life-tasks of their own age. (2) While people's concern with some life domains (for example own health, own children, and religion) increases with advance in age, interests in other domains of life (for example, future education, marriage, and family life) decreases. (3) Adolescents' expectations concern future education, occupation, family, and the material aspect of life. (4) The hopes and fears

of young adults relate to education, marriage/family, and work. (5) The goals of the middle-aged relate to work, family, vacations, and retirement. (6) Late adulthood people mention hopes and fears in the domains of retirement, leisure activities, personal health and death most frequently.

2.1.2d Gender Differences in Future-oriented goals

There is empirical evidence and sound theoretical reasons to suggest that there are gender differences in future-oriented goals. Uka (1966) avers that in Nigeria, the male is typed and trained for the superordinate role, while the female is socialized in the direction of the subordinate. Thus, culture bound expectations concerning life-span development vary to a large extent according to sex. Traditionally, males participated more actively in education and work life, whereas females were more involved in family and domestic activities. The few empirical reports on the hopes and fears of Nigerians appear in line with this traditional sex-role stereotype. Aderinto (1990) and Olowu (1987) found that middle-aged females have a lower educational aspirations than their male counterparts. Onibokun (1980) and Eyo (1986) found a higher achievement motivation among Nigerian boys than the girls. Similarly, in the study mentioned previously, Samaan and Samaan (1974) showed that although females expressed more fears than males, their fears were related principally to family and nurturant goals. For example, while the males significantly expressed more fears related to their own health, the health related fears of girls concerned that of others (parents, siblings, and relatives). The females also had more family disharmony and divorce related

fears than the males. The fears of the males were mainly in educational (school failure) and occupational (unemployment) domains. Wilson's (1986) study replicated these findings. She also found that boys report fewer fears than girls. A greater percentage of the girls fears were related to interpersonal relationships and contacts, while the fears of the boys centered mainly around unemployment. These reports appear uniform in painting a traditional gender stereotypic roles influence on the pattern and direction of the future-oriented goals of Nigerians. However, the methodological drawbacks noted with these studies should affect the amount of confidence that may be placed on these results.

Reports on gender differences in future goals from elsewhere have shown that men and women see their future lives differently. Moreover, Hagestad & Neugarten (1985) and Held (1986) argue that the family is the main force shaping the course of women's lives whereas the key influence on men's lives is work. However, findings on gender differences in personal hopes and fears appear inconclusive. Several investigators (Blais *et al.*, 1985; Solantaus, 1987; Zuckerman, 1985) have found a consistent pattern of gender differences, at least among adolescents. Blais *et al.* (1989) concludes that the specific domains rated as greater in significance by both sexes could be identified as corresponding to traditional sex role stereotypes. Thus, women rated the interpersonal domains - comprising friends and family - as very significant. Nonetheless, the education domain, which could be considered traditionally masculine, received greater ratings from women than men. In the same study, other traditional masculine domains, such as leisure

and work, were rated as equally important by both men and women. Similarly, Nurmi (1992) report female Finns mentioning goals related to education, self, and travel more frequently than men. He also found that women had fears related to the health of others than men. On the other hand, men expressed more goals in the domains of leisure activities and global issues.

A number of cross-cultural studies show that gender differences in adolescents' future-oriented goals are more evident in traditional societies compared with more liberal ones. For example, Sundberg *et al.* (1983) stated that Indian adolescents showed the largest sex differences compared with American or Australian adolescents. However, Poole and Cooney (1986) reports that Australian girls show a much higher concern with a family-centered domestic orientation than Singaporean and Australian males. Similar reports have been presented by Nurmi *et al.* (1994) who compared Finnish and Australian adolescents. Finally, Bentley (1983) found that Swazi girls were less interested in their future occupation compared with Swazi boys and Scottish adolescents.

In all, the results of the studies reviewed here show that the pattern of observed gender differences in future-oriented goals is variable. Simply put, we do not know whether males spontaneously report a greater number or different kinds of future events than do their female counterparts. Several authors report greater differentiation for males than for females. Others report greater concern with some domains for females than for males, and still others report no significant gender differences whatsoever. Nurmi

(1992) has even found evidence calling to question traditionally expected gender related patterns. Explanations for results in most of the studies cited are usually couched in terms of cultural values and societal options relating to future orientation. Thus, the non-traditional sex-related patterns found in Western cultures may be typical of these societies and may vary cross-culturally. On the other hand, socio-cultural expectations (even in the most traditional cultures) are changing, with young women being accorded more choices in their future roles (Fitzgerald & Coites, 1980), and it could be anticipated that this would lead to changes in the content and importance of future events. This study addresses itself to this issue in the light of the rapidly changing value-system of the country.

2.1.3 Temporal Extension

Motivational goals are essentially future bound (Nuttin, 1984). Most have a more or less temporal connotation with regard to the time period in which they are expected to be realized. This temporal localization of events in our minds serve as personal points of reference upon which future action plans are anchored. Wallace (1956) delineated an aspect of future time perspective as "the length of future time span which is conceptualized". The dimension has since been characterized as temporal extension, time-span or protension of thinking about the future (Poole & Cooney, 1987). Extension is closely related to the content because the expected realization time of a hope or fear is influenced by the life domain it refers to (Nurmi, 1987b, 1988). It has been found that the extension of future-oriented motivation

reflect the "prescriptive time-table for the ordering of major life events" (Neugarten *et al.*, 1965) or age-related changes in developmental tasks (Havighurst, 1974). More recently Nurmi (1991) concluded that the extension of goals reflect "the cultural prototype" of anticipated life-span development.

While intuitive evidence would indicate that some goals, such as religion (going to heaven) and self (growth and development) have a life cycle social time-table, evidence in the literature appear to indicate otherwise. For example, Kastenbaum (1966) suggest that adolescents extends only up to the age of early adulthood. Boniecki (1980) was perhaps more definite. According to him people in general look ahead to about an average of 4 to 5 years. Sundberg *et al.* (1983) found adolescents' average time span, depending on their gender and culture, to range between 3 to 5 years. Similarly, Nurmi *et al.* (1994) and Poole and Cooney (1986) report that most people look only 3 to 5 years ahead in terms of their future depending on the types of future-oriented goals, gender and culture. Nurmi (1992) added age as another variable that might influence the length of time span that people project future events. There thus seem to be some degree of consensus as to the average depth of people's future orientation. Though the evidence base is often still meagre. The interaction between extension on the one hand and the demographic and personal variables on the other are still unexplicated and poorly understood. It does appear that the apparent failure to take the different categories of hopes and fears into consideration when calculating extension may be partly responsible for the inconclusive

results. Also, apart from differences in the conceptualization of this dimension, most of the measures used in previous research are indifferent to thematic content.

Another operationalization problem that may have impeded the proper study and understanding of this dimension is the fact that earlier research in the field typically described it in terms of a quasi-stable personality characteristics (Agarwal & Tripathi, 1980). In fact, the trait psychological approach even conceived of future orientation as a stable personality characteristic (Gjesme, 1981; Lens, 1986; Nuttin, 1984; Nuttin & Grommen, 1975; Nuttin & Lens, 1985; Trommsdorff, 1983) presumably on the assumption that this dimension alone constitute future orientation. Gjesme (1983) in an apparent turn around, decried the lack of distinction between situationally induced general preoccupation with the future and future time orientation as a general and specific personality trait in the literature. Similarly, Raynor (1974; Raynor & Entin, 1982) demonstrated the usefulness of taking into account (1) the goals perceived physical distance in time as the situational factor; and (2) the individual's future time orientation. These two factors are assumed to interact and determine the individual's perceived goal distance in time or temporal extension. Despite these clarifications, the majority of workers (Agarwal *et al.*, 1983; De Volder & Lens, 1982; Gjesme, 1979; Heckhausen, 1967; Mehta *et al.*, 1972) in the research field persist on the assumption that a well extended future orientation is a characteristic of a well-adapted and psychologically healthy personality which is the cause or correlate of activities that are highly valued in society - such as delay of

gratification, planning, decision-making, problem solving and achievement. It is worthy of note that the correlations of these variables with the extension of future orientation, though significant, are always negligible. This indicates that if only one aspect of future orientation is related to other person variables, no clear pattern of results may be expected. Extension can have a psychologically different function in the context of other dimensions of future orientation, personality variables and situational conditions (Trommsdorff, 1983). Certain situational factors might make it necessary for a person to have a less extended future orientation. When the thematic content is taken into consideration it may become apparent that s/he has a rational view of his/her future. The question we ask here is primarily theoretical: What is the relationship between the extension of future orientation and other personality dispositions (for example, dispositional optimism) that orient individuals toward future consequences and outcomes? A possible way of answering this question is to analyze the shared variance of these variables. If, for instance, the correlations between personal disposition and extension is so large that it accounts for a high percentage of the shared variance, then we may accept the proposal of the trait theorists.

2.1.3a Age Differences in Extension

To the best of our knowledge no direct investigation of the extension of future orientation of Nigerians have been conducted. The studies of Aderinto (1989; 1990), Olowu (1987), and Togonu-Bickersteth (1987)

referred to earlier all induced specific points in the future for the respondents to project themselves into. Their results do indicate that Nigerians possess the abilities to look ahead in time when asked to do so. They also suggest that adolescents look up to the age of early adulthood and that young adults can easily see themselves in the roles of elders. Beyond these very general statements, based on indirect evidence, nothing specific can be said about the depth of the future thinking of Nigerians. Fricke (1979) tells us that Liberian adolescents saw the age of marriage as between 20 and 25 years, retirement at 50 to 78 years, and death at 70 to 96 years. Taking the ages (10 to 20 years) of the respondents into consideration the data would indicate that adolescent Liberians extend their thinking to a maximum of 86 years into the future. This seems outside the frame suggested by Boniecki (1980) and others, as noted above, that people's thinking extends only up to between 4 and 5 years. It thus appear that Fricke's (1979) result may have been confounded by the index of extension he used.

The major part of the literature from America, Europe and elsewhere is devoted to how far into the future adolescents project their hopes and fears. Results show that adolescents, whatever their age and cultural background, extend in their thinking to the end of the second and the beginning of the third decade of life. For example, Sundberg *et al.* (1983) found that average extension into the future among American, Indian, and Australian adolescents ranged from 18.3 years for Indian girls to 20.4 years for Australian girls. Similar results were found by Nurmi (1987b) for Finish adolescents and by Poole and Cooney (1987) for Australian and Singaporean

adolescents. These results are consistent with findings concerning the content of goals. The domain (occupation, education, and family) extensions, are typically up to the end of the second and the beginning of the third decades of life.

Nurmi (1987a, 1989b) compared the mean extensions of future goals according to thematic content. The results showed that adolescents anticipated that their hopes for future education would be actualized, on the average, at age of 18.1 years. Anticipation for leisure activities was at the age of 18.5 years. That for occupation/profession at the age of 22.5. For a future family at the age of 25.0. Finally, Finns anticipated their hopes concerning their ownership of property at the age of 25.2 years. It appears that adolescents expect to finish their education first, then to get a job, third to get married, and finally, to build up a material base for their later life.

Only a few studies concerning age differences in adults' temporal extension have been carried out so far. This few indicate that older persons have shorter extensions. Toban (1970) found a positive correlation between age and extension while Lens and Gailly (1980) found that mean future extension score decreases monotonically with increasing age. Nuttin and Grommen (1975), on the other hand, reported a curvilinear relationship between age and extension. Cameron (1977, Cameron *et al.*, 1977-78) who studied time orientation toward past, present, and future across the life span provide some statistical data in support of the linear hypotheses that preoccupation with the future is highest in adolescence and young adulthood and lowest in old age. Similarly, Lomranz *et al.* (1985) studied the meaning

of time-related concepts across the life-span and found that ratings of the future decreased with age. Adolescents and young adults evaluated the future as more positive, potent, and active than the older age groups. These findings imply that extension can not be understood without taking into consideration the meanings people attribute to each period of life in terms of their hopes and fears for each life stage.

It would also appear that these contradictory results are due in part to the index of extension employed in an investigation. For example, when Lens and Gailley (1980) reanalyzed their data using the proportion of the mean future extension score in years to the statistically determined expected life time in years as the index of extension, they confirmed the hypothesis of a curvilinear relationship between age and extension of future orientation. Furthermore, results on adolescents' extension indicate that studies measuring extension by age of participants, shows that older adolescents' thinking extends further into their life span compared with younger adolescents (Greene, 1986; Klineberg, 1967; Verstraeten, 1980). In contrast, when extension is measured by years from the point of study, the results show that younger adolescents extend further into the future compared with relatively older adolescents (Lessing, 1972; Nurmi, 1987b). Further investment of effort geared toward the refinement of techniques and measures are required in order to ascertain which of these indices of extension is the theory-adequate operationalization of the dimension.

One other problem is that the content of goals has not been considered along with extension in most investigations. One notable

exception has been the work of Nurmi (1992). He found that age differences in the temporal extension of adults reflected the prescriptive time-table for age-related changes in developmental tasks. Thus, the temporal extension of education-, family- and occupation-related expectations decreased with age, as the developmental tasks they concerned approached in time. Nurmi's (1992) results showed that the duration which this decrease takes varies from one life domain to another. Extension related to educational and family hopes decreases during early adulthood. On the other hand fears concerning occupation and health increases with advance in age. Thus people seem to become interested in different life domains due to the fact of aging. Secondly, these goals are likely to be actualized at different ages in the life-course. It seems that increases and/or decreases in extension may vary from one life domain to another. The domains of life should always be considered in investigations of age differences in extension.

2.1.3b Gender Differences in Extension

Hagestad and Neugarten (1985) suggests that the perceived age boundaries for the different life stages are lower for women than for men. In other words, the temporal extension of women should be shorter than that of men. Results concerning the influence of gender on how far into the future adolescents' thinking extend are contradictory. A number of studies show that boys extend further into the future compared with girls (Bentley, 1983; Poole & Cooney, 1987; Trommsdorff *et al.*, 1979). Some other studies (Greene, 1986; Nurmi, 1987a; Verstraeten, 1980) found no sex

differences in extension. The former group of results may be due to the gender differences in the content of adolescents' expectations. Girls, as noted earlier, have female-type expectations, such as getting married and having a lower level of education. These expectations have realization times that are objectively situated in the more immediate future. On the other hand, the expectations of boys - occupation and property - are situated in the more distant future.

Indeed, Elder and MacInnis (1983) identified two future goal frameworks (family/domestic and career oriented) for adolescent girls. They also introduced a notion of a temporal frame of action linked to the experienced and anticipated life-course. Marriage and parenting were the focus of the first frame (the shorter time span). Education and work are in the second more distant time frame. Trommsdorff and her associates (Trommsdorff *et al.*, 1979; Lamm *et al.*, 1976) have found results that appear to support this. For example, Trommsdorff *et al.* (1979) found both girls' and boys' future orientation contained occupational categories. However, the girls had a less extended future orientation in the occupational and family domains. Boys, on the other hand, had longer extensions in these life domains.

Overall, boys and girls appear to differ according to the content of their expectations and related extension. This may be due to the differences in normative life-span expectations between males and females. However, some cross-cultural variation in the influence of gender on adolescents' temporal extension has been found. Sundberg *et al.* (1983) stated that

Indian adolescents showed the largest gender differences compared with Americans or Australians. Similar results comparing American and Indian adolescents were found by Heckel and Rajagopal (1975). Furthermore, Bentley (1983) reports that Swazi girls had less extended future orientation compared with Swazi boys and Scottish adolescents. These results may reflect the fact that people's anticipated life-goals and their life context vary to a great extent across different cultures.

The only empirical study of gender differences in adult temporal extension appear to be that of Nurmi (1992). He found that men and women did not differ according to how far into the future their thinking extended. Nevertheless, women expected fears related to their own health to be realized later than men did. This gender difference may reflect realistic anticipation. Women generally live longer and tend to experience serious health problems at a later age than men.

2.1.3c Educational Level Differences in Future Orientation

In today's world, education appear the major means of learning about future possibilities. It is also a prime molding force of the future life chances of a sizeable proportion of the population. This is primarily due to the fact that educational institutions and curricula to a large extent express the values, preoccupations, hopes, and fears found in the culture. Education is also a primary means of social selection, through which people are allocated roles and statuses in society. For example, where people are chosen for positions in the occupational sphere by merit rather than by birth, education

is the "shifting" agency. Those persons who perform most capably in schools will be chosen to fill the most desirable positions in society: Therefore, how a person performs in school, how far s/he pursues his/her education, and the course of study s/he chooses often determines his/her future occupation, income, life style, and prestige. In brief, education seems a key determinant of future life chances and hence of people's future orientation (Broom & Selznick, 1977; Hammond *et al.*, 1975).

One may, therefore, reasonably expect that one of the factors that affects (or reflects) people's future orientation is the level of education they have attained. Consequently, we may infer that education is related to levels of aspiration and the amount of concern about the future (Klinger, 1977). In sum, educational socialization is a central mechanism for facilitating upward social mobility, personal growth and development, and the related achievement of one's ambitions in life. Thus, education may increase a person's sense of independence or confidence in the freedom of choice, self-assurance, and an optimistic view of the future. It is, therefore, reasonable to speculate that a person's educational status may not only influence the number and pattern of life domains s/he has or will invest in but also his/her perceived distance in time to those goals. The self-assurance and increased self-confidence of the highly educated should influence the affective evaluations and perceived controllability of his/her more salient life-goals. Unfortunately, there have been very little in extant literature by way of a direct investigation of these hypotheses.

The influence that the level of education may have on future

orientation have been neglected in the literature. The only available study appear to be that of Nurmi (1992) who reported minor differences in adults' expectations and related extension according to level of education. The higher the level, the more the interest in self-related topics. Highly-educated people also expect their fears, particularly those concerning their own health, to be realised later in life than did those with a low level of education. One possible explanation for these findings is that the highly educated have occupational positions which encourages self-development. This study can at best be viewed as exploratory, having raised more questions than answers. As investigations in this research field are becoming more refined, it is important that each relevant aspect of future orientation be empirically studied in relation to its many social and other determinants. One's educational status may allow one to conceive of one's future as internally controlled and rather positive or hopeful, if higher educational status leads to higher income and more interesting and satisfying positions. Thus, it is not only the content and extension of future orientation that are influenced by level of education, but also the attributional and emotional evaluations of the future.

2.1.4 Affective Tone

The question of affect concerning future orientation has also been investigated. Affective tone is the most widely studied evaluative component of future orientation. One of the important stimulus attributes identified in Perlman's (1976) factorial analysis of ten different measures of future

orientation is the affective loading of items. This indicates that future orientation does not only imply a goal-related structuring of future time but also involves the evaluation and judgements of the future in terms of challenges and threats. People display distinct patterns in their appraisal and reactions to their future because they do not only anticipate future events and outcomes, but also attach to them personal meanings and values. This results in these future-oriented goals becoming emotionally tinged. Therefore, affects are a crucial part of the process by which people evaluate their goals and it is this affective tone that commit people to their salient goals no matter the psychological distance in time to those goals (Klinger, 1977). Affective tone can thus provide information about where a person stands relative to each goal domain and about which goals are valued, important and compelling to him/her. Tomkins (1962) concludes that affects are the direct motivators of human beings because they contain the ingredients necessary for foresight and, therefore, the basic properties necessary to maintain the goal-related flow of mental events. Intensive study of a large sample of Americans concluded that the crucial factor in happiness is not past accomplishments or accumulated wealth so much as, first, people's outlook on their prospects and, second, the extent of their participation in striving for salient goals (Bradbury, 1969). Similarly, Wessman and Ricks (1966) found that happy men were involved with a large number of goals and purposes, whereas unhappy men were uncommitted to goals and had few long-term prospects. Thus the subjective evaluation of future-oriented goals such as affect or mood-inducing states

might influence a person's future orientation.

Unfortunately, the affective quality of future orientation is still clouded in definitional and operationalization controversy. Thus, different concepts have been applied to the variable. These include affective tone (Seginer, 1988a), optimism (Monks, 1968; Poole & Cooney, 1987; Teahan, 1958; Trommsdorff et al., 1982), anticipated pleasantness and unpleasantness (Sundberg *et al.*, 1983), hopefulness (Nurmi, 1987a, 1989) and Attitude/Affectivity (Daltrey, 1982). Characteristically, the variable has been operationalized and measured using a variety of methods. Nevertheless, most investigators (e.g. Greer & Kleiber, 1985; Nurmi, 1989b; 1992; Poole & Cooney, 1986; Seginer, 1988a; Trommsdorff *et al.*, 1979), report that people tend to describe their future in more positive terms (that is, they report more hopes than fears). Also, people expect their fears to be realized further into the future than their hopes. Nurmi (1989b) reports that this general positive outlook on the future increases with age among adolescent boys. Girls tended to become more negative in outlook with age. Gillispie and Allport (1955) reports that Adolescents from Anglo-American cultures are more optimistic about their future compared with French, Germans and Italians, who are also less hopeful about the future than all the other groups involved in the study. Contrarily, Poole and Cooney (1987) found that Singaporean adolescents have a more positive outlook about the future compared with Australians. Apart from the fact that data on this dimension of future orientation is thin, the little there is is inconsistent and to some extent contradictory. Furthermore, the relationship of this dimension to other

dimensions of future orientation remains clouded and poorly understood. The little data that is available is limited to only one age group - adolescents. The present study intends to clarify the operationalization of the dimension and extend the limited data to other age groups. The relation of the affective dimension with the other dimensions will also be explored. For instance, Weiner (1985) recently proposed an attribution-emotion model which implies that the attributions of success in the attainment of future objectives and events to internal and controllable causes are followed by feelings of hopefulness, whereas attribution of future failure to external and uncontrollable causes should be followed by hopelessness. This evaluation process concerns the extent to which people themselves are able to influence and have power over their future. Thus, while causal attributions may be based on a conscious cognitive evaluation of people's opportunities of controlling their future, affects may be responsible for the more immediate types of evaluations. These hypotheses remain to be tested.

2.1.5 Perceived Control

The extent to which people believe they are in control of their own destiny may play an important role in how they think about and try to regulate their own future (Brandtstadler, 1984). It is not surprising therefore that an enormous amount of research time and effort has been devoted to documenting how control beliefs relate with a great variety of variables of interest to psychologists. By and large, all the research converge on the same conclusion: People benefit from a strong sense of personal

effectiveness (Myers, 1987). It might be reasonably surmised therefore that if one feels responsible for one's future outcomes, one is presumably more motivated to invest effort aimed at preventing undesired outcomes or attaining desired future events. For instance, Bar-Tal and Bar-Zohar (1977) have shown that people who hold strong internal control beliefs are better able to delay gratification in order to achieve long-term goals. A few studies also seem to show that people with high self-esteem are more internal in their thinking about the future than those with low self-esteem (Nurmi, 1989c). Interestingly causal attribution research suggest that people not only try to control their environment, they also tend to create an illusion of personal control. It has been shown that ordinary people tend to apply self-serving bias (Zuckerman, 1979), attributional egotism (Snyder, Stephan, & Rosenfield, 1978), positive illusions (Taylor & Brown, 1988), and unrealistic optimism (Weinsten, 1980) when evaluating behavioural outcomes. Thus people appear to have a more positive picture of themselves and the amount of control they have over their life. This overly rosy perspective may allow one to maintain a favourable self-image, and feelings of control and optimism (Taylor, 1983). The suggestion here is that if people possess some measure of control over their lives this may generalize to the way they anticipate future events and objectives. Unfortunately most of these hypotheses have not been tested outside the laboratory or in relation to specific life topics and domains.

Recently, workers in the control beliefs research field have begun to allocate some research effort on how control beliefs change with age.

However, findings are remarkably inconsistent (Lachman, 1986). Whereas a few studies report decreasing internal control beliefs with age, others found no age differences (Heckhausen & Baltes, 1991). Lachman (1986) in a review of the research field suggests that variation in what is investigated may explain some of the inconsistencies. In the majority of the studies, control beliefs are measured in general terms without reference to particular life topics, and only a few have concerned beliefs about specific life domains. In this investigation we shall look into gender and age differences in control beliefs in which overall and domain specific internality-externality in beliefs are both measured against the backdrop of future-oriented goals. It is suggested that the extent to which internal control beliefs relate with specific life domains influences a person's overall causal attributions and may be due to the salience of those domains to the person. On this basis, we propose that personal interests play a strong role in people's overall control beliefs. Thus, a full understanding of future orientation, as outlined in our model, requires an assessment of people's perceived opportunities to influence and have power over their future life chances.

Causal attribution is a late entrant into the future orientation research field, thus it still suffers definitional ambiguity and vagueness. The most detailed analysis of this dimension of future orientation may be credited to Trommsdorff and her associates (Lamm *et al.*, 1976; Trommsdorff, 1983; Trommsdorff *et al.*, 1979, 1982). Their hypotheses are based on Rotter's (1966) theory of locus of control. Consequently, they define control beliefs as the anticipated causality of future events. Thus, internality means that a

person believes that him/herself mainly determines and decides the course of future events (the fulfillment of hopes or the avoidance of fears), whereas externality implies that a person sees future events as uncontrollable. The only other explication of causal attribution as a dimension of future orientation comes from Nurmi (1987a & b; 1989a; 1991). His ideas are based on Weiner's (1985) proposal that the attribution-emotion process plays an important role in the evaluation of behavioural outcomes. In this perspective the attribution of future events to internal and controllable causes are expected to be followed by feelings of hopefulness and optimism. Thus, Nurmi (1987a & b; 1989a) has been studying the internality of people's future-orientated goals which he defines as the conscious cognitive evaluation of the possibilities of controlling one's future. In this study we shall follow these two traditions and define perceived personal control of future-oriented goals as the tendency to regard oneself as capable and worthy of determining the course of one's own future.

In the extant literature, causal attributions concerning the future have usually been measured by asking people to rate the extent to which they believe they can exert control over the realization of the hopes and the prevention of the fears they had spontaneously mentioned (Emmons, 1986; Nurmi, 1987a&b; 1989a; Trommsdorff *et al.*, 1979; 1982). However, the greater amount of research effort in the area has been devoted to how adolescents evaluate the materialization of their future-oriented goals. Even then the available research evidence is still meagre, inconsistent and to a large extent contradictory. For example, Lamm *et al.* (1976) found that girls

were more external in their thinking about the future compared with boys. Further, that lower-class adolescents believed less in their ability to exert personal influence on the future than did higher-class adolescents. Trommsdorff et al's (1979) findings that low-status adolescents just beginning working life were more internal than their high-status counterparts who were still looking forward to several years of schooling places some qualifications on Lamm *et al's* (1976) results. It appears that the important variable these workers failed to take into account is the feeling of independence. Indeed, Greene (1986) shows that young people hold internally consistent beliefs regarding the prerequisites of adult status, and that such beliefs are based largely on transition accomplishments such as employment and living independently rather than age. Still more confusing, Nurmi (1989a) produced evidence indicating that there is a tendency for internality to increase with age especially among adolescent boys. Contrarily, Trommsdorff *et al.* (1978) found that 15-year-olds expected to have less personal influence on the future than 11-year-olds. The few available cross-cultural studies are difficult to evaluate due to several methodological inadequacies. Nonetheless, Gillispie and Allport (1955) found evidence that indicate that adolescents from Anglo-American cultures are internal in their future thinking compared with those from the other cultures studied. Similarly, Meade (1971) reports American college students as feeling more able to exert control over their future than Hindus (Indians). These authors couched their explanations in cultural relativistic terms. That is, people from Anglo-American cultures are socialized to be independent and self-reliant

whereas those from the other cultures studied are more collectivistic. It would seem that: (1) internality concerning the future increase with age as adolescents become more independent of their parents, (2) The further into the future hopes are extended, the less people believe that they can influence their realization. As future events approach in time, the sense of control concerning them increases (Nurmi, 1989b), and (3) Perceived controllability differs for positive and negative future events (Nurmi, 1993; Weinstein, 1980). It appears that people expect stronger possibilities of influencing their hopes than their fears.

Nurmi, Pullianien, and Salmela-Aro (1992) extended the study of control beliefs related to different hopes and fears to the adult domain. They asked 19 to 71-year-old Finns to rate spontaneously mentioned hopes and fears, according to the level of internality-externality they had of influencing their materialization. Nurmi *et al.* (1992) found that several variables influenced people's causal attributions about their future. First, people with a higher level of education were more internal than those with low educational status. Second, their results showed that adults' control beliefs become more external with age. However, part of the increase in externality was explained by the increase of interest in those life domains generally considered uncontrollable. People's beliefs about health-, self-, offspring-, and property-related goals became more external with age, unlike goals concerning future education, occupation, family, and travel which remained consistent. Finally, few gender differences occurred - women were less internal in their beliefs concerning their children's future lives and property-

related issues than men. These findings are remarkably similar, in fact they appear to be a replication, of Lachman's (1986) earlier results. One explanation is that these age related findings might reflect changes in life-span normatively prescribed life tasks and real opportunities to influence related domains of life. However, before this can be fully understood, control beliefs must be studied within a theoretical framework that simultaneously takes into account people's perception of their life chances, life-span developmental changes in terms of normatively prescribed life goals, and people's affective-motivational interpretation of the different domains of life.

2.2 PERSONAL DISPOSITION

Personal characteristics play an important role in how people think about their future. People also differ in the extent to which they are likely to consider distant outcomes in choosing their current behaviour. According to Doob (1971) the temporal potential of a person is affected by his or her personality traits. It is little surprising, therefore, that prior research has devoted great efforts at establishing relationships between future orientation and personality characteristics. However, the results are conflicting and inconclusive. In general, it seems that no matter what method of measurement is employed and no matter what personality trait is measured, the trait in question will be found to be significantly associated, though negligibly, with some dimension of future orientation. Some researchers (Rokeach & Bonier, 1960; Cottle, 1971; Shybut, 1968) have considered single traits, while others (Krauss & Ruiz, 1967; Lessing, 1968; Platt *et al.*,

1971), have been more inclusive, studying several traits at the same time.

Following the general assumption that an extended future orientation guarantees a well-adapted and psychologically healthy personality, it has been related to several personal construct variables. For example, a group of workers (Jacoby, 1969; Rokeach & Bonier, 1960; Zurcher *et al.*, 1967) found relationships between future orientation and dogmatism. Cottle (1971) found the opposite. Shybut (1968) found that people high on internal control had more extended future orientation. On the other hand, Platt and Eisenman (1968) found no relationships between the two. Others have related future orientation to self-concept (Platt & Taylor, 1967), social introversion (Krauss & Ruiz, 1967), personal adjustment, sense of responsibility, delay of gratification (Lessing, 1968). These studies conceptualized and measured future orientation in different ways. Given therefore that the methodologies employed are too diverse to permit objective comparisons, it is difficult to get a clear picture of the nature of relations between future orientation and personality variables.

People evaluate their chances of realizing their goals and plans based on their present view of their capabilities - their disposition. Recent theories of motivation (Atkinson & Birch, 1978; de Rivera, 1982; Klinger, 1977; Raynor, 1974; Weiner, 1974) view motives as "dispositions" within an individual to strive to approach or avoid particular classes of positive or negative incentives. On this basis motivational processes can be described as interactions between enduring value dispositions and motive relevant aspects of perceived situations. Thus, Heckhausen (1977) distinguished

success-motivated individuals (optimists) and failure-motivated individuals (pessimists). He posits that the former occurs when the hope for success in future exceeds the fear of failure and the latter when the fear of failure exceeds the hope of success. Heckhausen (1967) demonstrated that success-motivated individuals differ from the failure-motivated in the structuredness and time-span (extension) of their future orientation.

Similarly, Gjesme (1983) proposed a model in which future-time-orientation (FTO), a quasi-stable personality trait, is related to other aspects of future orientation. Individuals high on FTO are strongly oriented toward and affected by goals in the distant future. This could be interpreted as meaning that optimistic (high FTO) individuals perceive the future distance in time as nearer than pessimists (low FTO). In other words, the psychological distance between a person and a given future goal is longer for pessimists than for optimists. Carver and Scheier (1985), who based their model on the strategies of self-regulation and generalized expectancy, came to similar conclusions. They suggest that optimists expect things to go their way. Such persons generally believe that good rather than bad things will happen to them. Pessimists on the other hand expect things not to go their way, and tend to anticipate bad outcomes. In the view of Markus and Nurius (1986), optimists extrapolate possibilities on the basis of positive current experiences. Whereas pessimists extrapolate possibilities on the basis of negative experiences.

Carver and his colleagues (Carver & Scheier, 1981, 1982; Scheier & Carver, 1985; Scheier, Weintraub & Carver, 1986) believes that generalized

expectancies play a major role in determining outcomes for which the person has had no previous experience. They suggest that optimism and pessimism are stable personality characteristics. These dispositions are assumed to have important implications for the manner people regulate their actions and anticipate the future.

Similarly, Cantor and her colleagues (Cantor & Kihlstrom, 1987; Cantor *et al.*, 1987) differentiated two types of achievement strategy. The optimistic strategy was characterized by straight forward striving for success. This is based on high expectations derived from positive past experience and a desire to enhance an already strong image of competence. In contrast, pessimistic strategy involved the setting of defensively low expectations. In each of the strategies described above one thing is very clear: goal-setting and planning stages are particularly influenced by attributional tendencies, which in turn are involved in the evaluation of future possibilities.

Thus there seem to be large individual differences in future orientation. Some persons appear greatly affected by goals and well extend future consequences while others have negative set of beliefs. However, research has so far not assessed how future-oriented motivation are mediated by personal dispositions.

2.3 RELIGIOSITY

Empirical and theoretical analyses of religion have come to recognize it as a multifaceted entity that must be understood from a diversity of

perspectives (Gorsuch, 1988). For the purpose of this study and in line with our general model we focus mainly on personal cognitive or declarative religion. However defined or described, religion usually include a cognitive-declarative dimension, whether it is expressed explicitly in formal doctrine at one extreme or implicitly and tacitly through rituals and practices prescribed by the religion at the other extreme (Jones, 1994). Personal religiosity or religiousness would therefore seem to serve logically as the basis for the study of the link between religion and future-oriented motivation. Religious beliefs being a salient part of a person's value system might exert a decisive influence on his or her future thinking.

From the literature, it would appear that there are three main approaches to the study of religiosity. The cognitive approach attempts to scale responses to questionnaires about attitudes or beliefs. The focus is on the reasoning processes underlying people's religious behaviour rather than on the behaviours themselves (Borenstein, 1982). The experiential approach is represented mainly by investigations of mystical experiences (Glock & Stark, 1965; Scobie, 1975). Finally, the behavioural approach assesses the frequency of observance as church attendance or private prayer. This approach is adopted for this study. Much early research tended to measure religiosity using a single criterion such as frequency of observance and acceptance of orthodox beliefs (Huisman, 1994; Kobuzal, 1975). People are asked to indicate their denominational affiliations, how often they attend church, frequency of participation in religious functions, or involvement in parochial activities. Since acts of worship and service to God are varied no

specific simple act or behaviour can serve as a suitable criterion for judging an individual's religiosity. Another problem is that criterion selected in the past are often suitable for the study of single- rather than multi-religion groups. One way of enhancing the relevance and sensitivity of this approach is to include several criteria selected in such a manner that they are mindful of and meaningful to all religious faiths.

Researches employing the behavioural approach generally assume that people differ in the degree, direction, intensity, or strength of their religious beliefs, and that these primary beliefs often influence other functions and characteristics. However, there is a continuing controversy as to whether the degree of religiousness is a uni- or multi-dimensional construct. Researchers in the area have generally followed Allport's (1959) discussion of two opposing religious orientations in their efforts to standardize the uni-dimensional model. Soderstrom and Wright (1977) suggest that despite the differences in terminology and operationalization there is a single general religious orientation that can be viewed as a continuum. One end of the scale refers to those people to whom religion is a central aspect of life. At other end are those to whom religion is a peripheral aspect of life.

Other workers (Campbell, 1981; Davidson, 1972; Glock & Stark, 1965) in this research field have favoured the multidimensional model. However, Borenstein (1982) factor analyzed a scale that assessed 10 dimensions of religious orientation and found that all scales loaded highly on a single factor. This factor indicated that the various dimensions can be seen as components of a single general orientation. Similar findings have

been reported by Meadow (1976), who factor analyzed 344 religious beliefs and attitude items from five content areas, found a general religiousness factor which accommodated all other factors and domains. This factor was interpreted as a religious liberalism - conservatism measure in relation to traditional views of religiousness. To date therefore, there seem to be an overwhelming evidence in support of the view that individuals only differ in the degree or strength to which religion is central or peripheral in their life. We shall henceforth refer to these two differing religious orientations as deep religious orientation and superficial religious orientation respectively.

Two lines of research on the association of religiosity to behaviour appear of special relevance to our study. Though none of these studies were designed to test the effects of religiosity on future thinking *per se*, they serve as a useful base from which inferences on the possible directions such a relationship might take can be drawn. One of the main lines of research in the psychology of religion has been into the search for meaning in religion including the re-working of meanings in crisis. The other interesting area of empirical findings is the moderate but demonstrable positive contributions of religious devotion to mental health and quality of life (Bergin, 1991; Larson *et al.*, 1992; Worthington, 1989). These two lines of research appear to be related, because research on subjective well-being has found that it is affected by the meaning that is found in religion (Klinger, 1977).

It is assumed that a mature spiritual commitment forms the basis for the discovery of meaning and purpose in life. A high sense of meaning in life has been shown to be associated with intrinsic religious motivation (Crandall

& Rasmussen, 1975; Edmunds, 1981; Palontzian, 1981; Paloutzian, Jackson & Crandall, 1978); mature religious commitment (Soderstorm, 1977; Soderstorm & Wright, 1977); and central religious orientation (Campbell, 1981). Soderstorm and Wright (1977) compared three independent measures of religiosity in their ability to predict meaning in life. They found that high scores in all three scales were each indicative of a relatively high degree of meaning in life. On the other hand low scores on all three scales were each indicative of a relatively low degree of meaning in life.

Recently, meaning in life research has begun to focus on people's commitment to goals and the degree of satisfaction derived from the materialization of such goals (Battista & Almond, 1973; Klinger, 1977). An individual gains meaning when s/he shows a high degree of commitment to a set of goals, when s/he has developed a system to evaluate the degree (possibility) of actualization of the goals. The pursuit of such goals also increases one's self-esteem. In addition, the person should possess the ability to achieve the goals which themselves should be congruent with his/her needs and the sociocultural context. According to this position, meaning in life is not determined by a specific goal, but by the degree of energy invested in achieving goals, regardless of specific content. To borrow Klinger's (1977) words, "the sense of meaningfulness derive from involvements with significant incentives, incentives that are still fresh and powerful enough to command affective responses". It appears that meaning in life is also related to personal disposition. According to Battista and Almond (1973), to achieve meaning in life one must be internally integrated

and possess a sense of control over one's life.

These theoretical speculations have recently been given some empirical backing. Orbach, Illuz, and Resenheim (1987) and Debats, Drost, and Hansen (1995) demonstrated that when meaning-in-life is operationalized as outlined above, it has many goal type properties and relates with much the same set of variables as other goal type constructs. Other investigators have found meaningfulness to be associated with certainty about the future (Tryon & Radzin, 1972) and general life satisfaction and happiness (Debats, 1990). One implication of these theoretical analyses and empirical findings is that persons with a high sense of meaningfulness may not only be future-oriented, but have a strong sense that future-oriented goals are important and that they are actively involved in attaining them. It is therefore reasonable to speculate that the type of meaning found in religious devotion may enhance the clear perception of future goals, their patterning along the life line, and the belief that such goals can be reached no matter the circumstances. Presumably therefore, the deeply religious having found life more meaningful as a result of their religious devotion may be expected to be more future oriented than the superficially religious.

It would appear that a high sense of meaningfulness is related to future thought. However, the evidence is fragmentary and indirect making it difficult to make a categorical statement. It may be that the search for meaning that leads to religious conviction and commitment is a search for meaningfulness - an attempt to restore the sense that one's life is orderly

and purposeful (Thompson & Janigian, 1988). It seems that the concept of meaningfulness is interchangeable with the concept of future thought; order (a stable world and self view) implies one's assessment of one's ability and resources to reach goals, such as perceptions of control, feelings of self-efficacy and dispositional optimism; purpose (the possession of goals one is trying to reach) is compatible with setting and obtaining personal goals and knowing how those goals are patterned along the life line. Thus, meaningfulness like future thought is determined by the goals one is trying to reach and the belief that goals can be reached despite misfortune. In fact, a person is not likely to be future oriented if s/he lacks meaning in life.

There appears to be a strong and direct relationship between religiosity and a high sense of meaningfulness. There is also ample evidence that meaningfulness is associated with the possession of and commitment to goals, making plans to achieve those goals; and the sense that one is in control of one's life. Furthermore, meaningfulness has been related to other variables such as continued happiness, life satisfaction, and hopefulness which might be expected on theoretical grounds to show some relationship with future orientation. In other words, finding meaning in life through religious devotion enhances future thought. Presumably those deeply religious should be more future oriented than the superficially religious. Being deeply religious may imply having a high degree of certainty about the future (Tryon & Radzin, 1972), sense of control over future events, and emotional involvement with future-oriented goals.

There are indications that the goals people set for their future may

differ on the basis of the strength of their religious devotion. Huisman (1994) related religiosity (using only one criterion - self-report of strength of religious belief) to values. He found religiosity to correlate most positively with traditional type values and most negatively with hedonism. This suggests a link between religious teachings and the goals people use to guide their lives. It is however difficult to ascertain whether wanting to be devout, to show respect for tradition, and to be moderate is synonymous with asserting to be religious. Nevertheless, it is possible that the deeply religious differ from the superficially religious on the types of goals they set for the future.

Cross-sectional studies on the relation between age and religiosity, although they tend to contradict each other more often, indicate that religious development is a lifelong process that is subject to shifts throughout life. Fiske and Chiriboga (1990) reviewed the empirical and theoretical literature and reported an increased concern with religion and spirituality for individuals as they grow older. This effect is most noticeable from the late middle age onwards. Rogers (1976) concludes that religiosity and ageing are positively related. Finally, Orbach *et al.* (1987) found some positive relationship between age, education and gender on the one hand and meaningfulness on the other.

In sum, there are indications that people's present religious orientation significantly affect their long term personal direction. However, the evidence is rather fragmentary and inconclusive. The salience of religion in human motivation suggests several hypotheses which before now have been mostly

anecdotal and speculative. None have been subjected to empirical analysis. This study attempt to deal directly - in an exploratory fashion - with the relation of religiosity to future orientation. However, due to the fragmentary nature of the evidence, we approach this analysis not with explicit hypotheses but with a set of expectations. Thus we expect that the deeply religious may show more concern with the future than the superficially religious.

2.4 SUMMARY OF THE LITERATURE REVIEW

Future orientation has been a topic of continued concern to researchers interested in the nature of the relations between temporal variables and a host of other psychological concepts. Despite the widespread agreement on the central role of future orientation in human motivation, few attempts have as yet been made to develop a systematic theoretical base for this construct. Also, the findings of empirical research in the area are inconsistent and contradictory. The bulk of the available literature has centered on adolescents from Anglo-American and other Western cultures. Systematic research on the changes in future orientation across the life span, especially in adulthood and old age is sparse and inconclusive. Even then, the majority of the studies reviewed focus on the person's need situation or the value of behaviour outcomes. The link between current social history and individual lives has not been examined. Most importantly there have been little or no replications of available results in Africa. It is not clear from the findings to what extent future orientation

varies across cultures. If it does vary, is this due to natural and potentially interesting aspects of different cultures, or to current transient sociocultural events? Answers to these questions calls for exploratory and confirmatory studies. The present study is an attempt in this direction.

The exceedingly great number of different methods applied in previous research is partly responsible for the mass of inconsistent and conflicting results. In particular the use of different measures specially adapted for the assessment of specific dimensions of future orientation rather than clarify the operational definitions of the dimensions has both fuelled and deepened the definition controversy. It is suggested here that these definitional and instrumentation problems might account for the contradictory findings. It is worthy of note that other researchers in the area have questioned the reliability and validity of several of the measures previously applied in the research field (De Volder, 1979; Nurmi, 1991; Perlman, 1976; Ruiz *et al.*, 1967). Thus the inconsistencies in findings could be explained by the restrictive nature of the studies and variations in the indices of future orientation employed. One possible way of overcoming these methodological problems is the use of a flexible measure that can be modified as needed with regard to the specific research question. In the present investigation an attempt is made both at designing and beginning the process of standardization of such a measure.

In spite of the widespread recognition of the central position of thematic content in the analysis of future orientation, few attempts have been made to study it directly.

People's sociocultural context to a great extent determines the way they perceive and conceive of what is possible and desirable for them to strive for. Although this is not often emphasized, there seem to be huge differences in the age-graded life goals and opportunity structures across different countries because of variations in culture, rate of social change, and industrialization. Thus goal categories found to be prominent in one culture may not be found in another. Nonetheless, the literature indicate that there might be some core domains of life that may be regarded as cultural universals. Despite this however there has been little agreement on the number and definitional criteria for coding into these categories. This has resulted in problems of comparison of results across cultures and studies. There is therefore the need to begin the formulation of a classificatory scheme that will be meaningful across cultures and historical periods.

The review showed that the content and temporal extension of people's hopes and fears variously reflect normative life-events of their own age. For example, while interests in future education and family decrease during early adulthood, those relating to work and property do not. Moreover, in middle age, people seem to become increasingly interested in their children's future and their own health preoccupies them in old age. It is thus apparent that extension of future orientation varies according to the life domain concerned. Temporal extension decreases with age as the hopes and fears they concern approach in time. Therefore, older generations have less extended future orientation than younger ones. This implies that the controversy on the relation of age with the temporal extension of future

orientation may have been due to the failure of previous studies to consider thematic content when extension is investigated. The extension of the various life domains is considered in the present investigation.

The review also indicate that people differ in their orientation to the future on the basis of gender. Males tend to have more occupation and property-related goals. Their future orientation also appear to be more extended and more dense in these domains. Females, on other hand, tend to have more family-related goals. Also their orientation tend to be more extended and more dense in this domain. Nevertheless, people do not differ markedly, either on the basis of age or gender on overall temporal extension. However, there still remain some unresolved arguments as to the extent future-orientation vary on the basis of gender. While some workers (Poole & Cooney, 1986; Sundberg *et al.*, 1983) suggest sex-role stereotypic differences in future orientation, others (Nurmi, 1992) provide evidence calling to question traditionally expected gender related patterns.

There are indications that people's present religious involvement significantly affect their long term personal direction. The evidence is fragmentary and inconclusive. Our attempt to relate religiosity to future orientation rely heavily on findings from adjacent research fields such as meaningfulness (Debats *et al.*, 1995; Orbach *et al.*, 1987) and Mental health (Bergin, 1991; Worthington, 1989). Thus the hypotheses drawn are mostly anecdotal and highly speculative. They remain to be empirically tested. Our effort in this area being exploratory will be approached with expectations rather than clear cut hypotheses.

There is an overwhelming lack of data on the relationship between educational status and future orientation. It is not clear whether this variable influences people's future thinking from the review. Other than this, findings with respect to the content and extension dimensions of future orientation appears clear and definitive. The same, however, cannot be said of the other dimensions. Data on perceived control, personal disposition and affects are sparse, inconsistent, and difficult to interpret because of the large variations in methodology. Very little has been done by way of clarifying the hopes and fears of Nigerians see in their future. Thus the issue of future orientation still remain an untapped area of psychological knowledge in our country. There are indications that the knowledge people have of their future varies on the basis of their disposition, gender and age but the direction of these relationships are not clear. There are evident need of research to fill the many gaps in knowledge revealed in this review.

2.5 EXAMINATION OF RELEVANT THEORIES AND CONSTRUCTS

Researchers typically have a variety of conceptions about the phenomenon under investigation which influence the way they approach it. In order to make this study as explicit as possible, the heuristic principles applied in the investigations reviewed above will be briefly outlined. Following this several lines of theories that might be used to explain the findings of this study are briefly outlined. Only the general and abstract framework which are important to the understanding of and methodological issues concerning the phenomenon under study are described.

2.5.1 Heuristic Principles Applied in Earlier Research

Most of the studies on people's thinking about the future have been based on the trait-theoretical approach. This approach characterizes different aspects of orientation to the future, such as temporal extension, coherence and affect, as individual properties according to which people differ to a varying extent. Furthermore, the antecedents for these differences were sought from other personality traits, such as ego-strength (Rabin, 1978), delay of gratification (Agarwal *et al.*, 1983; Klineberg, 1968), behavioural problems (Davids & Parenti, 1958) and achievement motivation (Agarwal & Tripathi, 1980), or in contextual variables, such as social class (Kendall & Sibley, 1970) and institutionalization (Davids *et al.*, 1962; Trommsdorff & Lamm, 1980). Although in nomothetic studies people- and environment-related factors have to be operationalized in terms of variables, the major limitation of the trait-theoretical approach is that the phenomenon under investigation is supposed to equate with how it is measured.

Other theoretical approaches which have been used are the relational, the process, expectancy by value models, and the self-regulation approaches are applied here. Each of these approaches orients the research in a different direction compared with the trait-theoretical approach.

2.5.2 The Relational Approach

According to relational theory, psychological phenomena must be investigated as relationships between individuals and their life-contexts. For example, motivation is characterized as the relationship between individual

need and the objective it refers to (Nuttin, 1964; 1984; Nuttin & Lens, 1985).

Similarly, emotion is described as a person's reactions when exposed to some environmental attributes (Lazarus & Folkman, 1987). Moreover, perception has been defined as the point where schemata and contextual objects interact (Neisser, 1976). In the case of future orientation, relationality simply means that people's interests, goals, thoughts and affects typically concern events and objectives which belong to their future life.

2.5.3 Process Approach

In the process-oriented framework, it is emphasized that psychological phenomena must be studied and described as series of changes over time and across situations (Lazarus & Folkman, 1987). A distinction is made between threat and challenge (Lazarus & Launier, 1978), both of which pertain to appraisals of the future. However, whereas the threat appraisal emphasizes potential harm, the challenge appraisal gives more weight to the positive mastery involved in the prospective person-environment transaction. The implicit assumption is that challenge is a better state of mind than threat, and therefore a more effective way to life and function (Lazarus & Launier, 1978). This may explain the tendency of people to view their future in favourable terms (that is, the mentioning of more hopes than fears). These prospective appraisals according to Lazarus and Launier (1978) reflects transactions between the environment's features and the individual's

characteristics (or dispositions). Appraisal of future occurrences may prompt anticipatory coping strategies such as information seeking and is thus related to future orientation (Norem & Cantor, 1986; Showers & Cantor, 1985).

2.5.4 Expectancy x Value Models Approach

Heckhausen (1977) has attempted to define motivational expectancy in terms of individual subjective perceptions. He argues that people are motivated to bring about or prevent situations that do not yet exist. Thus, motivational processes are described as interactions between enduring value dispositions and motive relevant aspects of perceived situation. Such judgements typically entail the processing of information about such things as one's resources and the nature of the constraints on one's behaviour. Some of these variables implicitly involve temporal considerations. Thus, just as goals can be conceptualized as being time dependent, so can expectancy judgements. That is, expectancy can easily be a person's probability of goal attainment within a particular span of time (Carver & Scheier, 1982).

Applied to future orientation, these models suggest that future orientation is the product of the subjective probability to obtain an outcome (expectancy) and the subjective value of this outcome (value) as well as the appraisal of the effectiveness of an act versus a situation to affect desirable outcomes. It is suggested that people who appraise the effect of the situation on the attainment of positive and negative outcomes as stronger than the effect of their action, and guided by principles of utility or least necessary expenditure develop a weaker future orientation (Heckhausen,

1977).

2.5.5 Self-Regulation Approach

The recently emerging work on "possible selves" which focuses on past, present, and future goal states functioning in the service of one's current self-concept, is one line of research that appears relevant to future-orientation (Markus & Nurius, 1986; Markus & Ruvolo, 1989). Possible selves are not constrained to one's current self-concept and can span a diverse range of life domains (e.g., intimate self, work self, and fun self). One postulated function of the self-system is to energize the individual by providing the exact goals and incentives that direct the pursuit of hoped-for selves (Markus & Ruvolo, 1989). It has been suggested that self-conceptions are largely determined by comparisons with past selves and expectations (incentives) for the future possible selves (Markus & Nurius, 1986; Markus & Ruvolo, 1989). It is possible that current function (that is, adjustment or disposition) influences the construction of negative and positive events, including hopes and fears.

Finally, future-orientation can be usefully considered within the context of Cantor's (1990) recent attempt at identifying two complimentary explanatory accounts of personality. She suggested that a comprehensive understanding can only be achieved by considering both the "havings" (that is, individual differences) and the "doings" (that is, cognitive and behavioural expressions). It is suggested here that the "doings" should not only be defined by actual events (or current goals), but also by intended yet

unenacted pursuits (or future-oriented goals). Thus, the "havings" aspect of personality is represented here by personal disposition while the "doings" refers to future orientation.

2.6 HYPOTHESES

Five major hypotheses have been formulated to guide this investigation. Of necessity they are broad and focus on the relations between future orientation globally and the independent variables. However, our model proposed four different dimensions of future orientation whose rationale are based on previous research in the area. The literature indicate that the relationships between these dimensions of future orientation and the levels of the different independent and control variables may not necessarily be in the same direction. Therefore, in order to test the major hypotheses, they are broken into sub-hypotheses that pair each of the dimensions of future orientation with the independent and control variables:

1. Optimists will express significantly more concern with the future than pessimists.
 - (a) Optimists will mention significantly more hopes than fears, while pessimists will mention significantly more fears than hopes.
 - (b) Optimists will significantly expect their hopes to actualize in the nearer future than their fears. Pessimists will significantly expect their fears to actualize in the nearer future.

- (c) Optimists will significantly perceive the future as more personally controllable than pessimists.
 - (d) Optimists will be significantly more positive in their outlook on the future than pessimists.
2. Deeply religious persons will express significantly more concern with the future than the superficially religious.
- (a) The deeply religious will mention significantly more hopes than fears.
 - (b) The deeply religious will significantly extend farther into the future than the superficially religious.
 - (c) The deeply religious will significantly perceive the future as more personally controllable than the superficially religious.
 - (d) The deeply religious will be significantly more positive in their outlook on the future than the superficially religious.
3. Men will be significantly more concerned with the future than women.
- (a) Men will mention significantly more career-related and women more family-related goals.
 - (b) Men will significantly extend into the farther future than women.
 - (c) Men will significantly perceive the future as more personally controllable than women.
 - (d) Men will be significantly more positive in their outlook on the future than women.

4. Older persons will express significantly less concern with the future than the young.
 - (a) Older persons will mention significantly fewer goals than the young.
 - (b) Older persons will significantly extend into the near future than the young.
 - (c) Older persons will significantly perceive the future as less personally controllable than the young.
 - (d) Older persons will be significantly more positive in their outlook on the future than the young.

5. Highly educated persons will be significantly more concerned with the future than the less educated.
 - (a) Highly educated persons will mention significantly more goals than the less educated.
 - (b) Highly educated persons will significantly extend into the farther future than the less educated.
 - (c) Highly educated persons will significantly perceive the future as more personally controllable than the less educated.
 - (d) Highly educated persons will be significantly more positive in their outlook on the future than the less educated.

2.6.1 Operational Definitions

The variables under investigation will be operationalized and measured as outlined below:

1. **Future Orientation:** The analysis will address four dimensions of future orientation. In each dimension several set of scores will be derived. These scores are outlined here and fully described and illustrated in Section 3.5.
 - a. **Content:** Each hope and fear statement will be categorized separately into one of 15 categories or *life domains* on the basis of their thematic content. (The full list of these categories and the definitional criteria for coding into them may be found in Appendix B). The measures of content will include: total number of hope and/or fear mentioned, overall hope or fear, domain-specific hope or fear, and number of hope or fear domains mentioned.
 - b. **Temporal Extension:** The length of future time span. The measures are; overall temporal extension and domain-specific temporal extension.
 - c. **Affective Tone:** This measure consists of the number of hopes/number of goals.
 - d. **Perceived Control:** Measured by respondents evaluation of the amount of control they expect to exert on the actualization of their hopes and the prevention of their fears. The scores here

are domain-specific control and overall control.

2. **Personal Disposition:** This variable is measured by the Life Orientation Test (LOT).
3. **Gender:** Same as sex, that is, males and females.
4. **Age:** Respondents were divided into 4 age groups on the basis of life stage oriented studies. These groupings are 13-18 years, 19-35 years, 36-49 years, and 50 years and above.
5. **Level of Education:** The highest level of education attained by the respondent. These were:
 - (a) *Secondary* - those who completed or are in the secondary level of education.
 - (b) *Tertiary* - those who completed or are in the tertiary level of education.
6. **Religiosity:** This variable is measured by the Religious Orientation Test (ROT).

CHAPTER THREE

METHODOLOGY

The primary purpose of this investigation was two-fold. First, in examining the way Nigerians perceive their future, it sought to distinguish between situational and dispositional factors in future thought. A construct-future orientation was isolated and defined as the general preoccupation with the future. It is assumed that all persons have the capacity to occasionally think about, structure, and plan their future. However, the degree to which people engage in such future oriented thinking depends to a large extent on their habitual openness and responsiveness to future outcomes and consequences. This second aspect of future thought is referred to here as dispositional orientation to the future. Future orientation, a complex cognitive-dynamic construct, can be analyzed according to several dimensions. The focus here is on the thematic content (hopes and fears), temporal extension, evaluative and attributional dimensions. The study is therefore aimed at exploring the relationships between these dimensions of future orientation and personal disposition.

Second, the relationships between these two aspects of future thought is mediated by several third factor variables. The study therefore also sought to assess the variations placed on the relations between future orientation and personal disposition by religiosity, age, gender, and educational status. The methodology can best be understood against this background. The study is both exploratory and descriptive in order to

effectively answer the research questions guiding the investigation. These considerations radically affected the choice of design, population and site of study, the measures and procedures employed.

3.1 RESEARCH DESIGN

The research is a cross-sectional survey. Despite its obvious disadvantages, the cross-sectional research is the only means of examining different age-groups at one point in time. In order to examine thoroughly all the variables outlined above, the study gathered qualitative and quantitative data. The mode of data collection was through a mixed idiographic-nomothetic, loosely structured open-ended questionnaire and a battery of structured self-report paper-and-pencil scales.

The independent variable is personal disposition. Age, gender, religiosity, and educational status are included as control variables. However, in the analysis, these latter variables are treated as independent variables. Age has four levels: 13-18 year-olds, 19-35 year-olds, 36-49 year-olds and 50+ year-olds. Gender has two levels: male and female. Personal disposition has two levels: dispositional optimism and pessimism. Religiosity has two levels: deep and superficial religious orientations. Finally, educational status has two levels: secondary and tertiary levels of education. Thus, the statistical design is a 4 (age) x 2 (gender) x 2 (personal disposition) x 2 (religiosity) x 2 (educational status), factorial/multiple-measures design.

The dependent variable in this study is future orientation. It is measured by the following dimensions: thematic content (hopes and fears),

temporal extension, affective tone, and perceived personal control. This means that a multiple measure of the dependent variable is employed. Consequently, there is the need for a multiple-measures design - which will allow us to relate these dimensions of future orientation jointly and severally to the independent variables. This design will also permit the determination of the extent to which each factor (and their different levels) individually predict or relate to each of the dimensions of future orientation.

3.2 THE SAMPLE

The site for this study was limited to Obafemi Awolowo University community, Ile-Ife, for reasons advanced earlier (see Section 1.6). Our target population was therefore the adolescent and adult aged groups of the community. The lower (13 years) and upper (61 years) age limits set for the inclusion of respondents in the study may appear to have been arbitrarily set, but with reasons. Researchers in the area of adolescent development in Nigeria have not conclusively identified a recognizable or generally accepted lower age criterion for adolescence. Some places it as early as 10 years of age (Jegede, 1981). Others have placed it years later (Maqsd, 1978; Oduntan, Ayeni & Kale, 1976). Oduntan *et al.* (1976) suggests that the age of puberty among Nigerian children is around the 12 year mark. Finally, Akinboye (1985) places the chronological age of adolescence within the range of 12 to 21 years. Due to these inconsistencies, 13 years was decided on as the lower limit for adolescence for the purpose of this study. The overriding consideration being the ability of respondents to understand and

complete the research protocol without much difficulty. Only persons who have attained at least the primary level of education could be relied on to fill in the questionnaires properly. This decision meant that only adolescents in the Senior Secondary School classes could be of the age and literacy level required. Secondly, persons younger than 13 years may not be found in the senior high school level. Actually, only one out of the over two hundred and thirty respondents drawn from high school classes was aged 12 and a half years.

The upper age limit of 61 years was decided on with a consideration of the official retirement age in the country. This fact would make it impossible to recruit enough respondents older than 61 years from the community. It was noted that the retirement age for academics is now 65 years. However, not many of such senior citizens are around with us in the community, principally because the change from 60 to 65 years as the retirement age for academics is a recent one. In fact, the sample drawn included no respondents older than 56 years.

A sample of 736 respondents was drawn from among the staff and students of Obafemi Awolowo University, the teachers and students of Moremi High School, teachers in the UPE Primary School and the University Staff School. This implies that the sample was made up of three distinct groups: (a) Senior secondary school students, (b) Undergraduates, and (c) Postgraduate students and workers. The postgraduate students are grouped with the workers because a significant majority of them were workers.

The high school sample provided the adolescent age group and a few

(about 10 in number) young adults. The bulk of the young adults were drawn from among the undergraduate students. However, this sub-sample included some adolescents (14 in number) and a few middle aged adults (4 in number). The teachers, academic and non-academic staff as well as the postgraduate students yielded both the middle aged and later adulthood groups. There was, however, a sizeable number (115) of young adults among these sub-samples. This same purposive sampling procedure ensured that the different educational levels were adequately represented in the sample.

There was a low representation of two groups. The small number of persons aged 50 years and above in the community resulted in a very low representation of this age group in the sample. Also, there was a very poor response rate from the lowest cadre of the non-academic staff. This resulted in the non-representation of the primary level of education in the statistical analyses. Only one respondent belonging to this level of education turned in the research protocol. The respondent is therefore excluded from analyses involving educational status. This in effect means we had to adjust the educational status factor to two levels instead of the three originally planned.

3.2.1 The Pre-Test Respondents

The pre-test was done exclusively for the purpose of establishing the reliability of the measures employed in this study. The pre-test took place six weeks before the main study started. 150 undergraduate students enrolled

in three introductory psychology courses were administered the same set of questionnaires employed in the main study. These introductory psychology courses were targeted because students from virtually all faculties in the university register for them. This means that these respondents were from various academic levels and in various courses of study.

Though the questionnaires were completely anonymous to assure respondents of confidentiality, the pre-test sample were enjoined to write either their initials or matriculation numbers at the top of the first page of the questionnaire booklet. The same injunction was given to this selected group of students during the main run of questionnaire administration. It was expected that this would make it easy for the pre-test scores of these respondents to be matched with their post-test scores. It was also established that although the questionnaires took an average of 70 minutes to complete, respondents had to be given some time to do so due to time factor. They were thus allowed to turn in the completed questionnaire the next lecture hour, which was a week later. This time frame was adhered to strictly in the main run of questionnaire administration. Collation problems meant that only 80 (38 males and 42 females) or 53% of the initial sample of 150 are available for the test-retest reliability analyses of the measures. The mean age of this pre-test respondents was 22.07 (SD = 2.67, range = 18-32) years.

3.2.2 Participants in the Main Study

A total of 736 (378 male and 346 female) respondents participated

in this study. Twelve out of this number failed to indicate their gender. The mean age of the respondents was 23.88 (SD = 10.91, range = 12-56) years. As noted earlier this sample comprised three different groups: (1) 239 (114 male and 121 female) high school students 4 of whom did not indicate their gender. (2) 304 (148 male and 153 female) undergraduates 3 of whom failed to indicate their gender. (3) 193 (116 male and 72 female) postgraduate students, teachers as well as non-academic and academic staff of the university. Full information on the demographic characteristics of these samples are presented in Table 1. As the ages of the samples overlapped, they were all analyzed together.

Though all the participants received all the scales, some did not fill in some questionnaires or complete some sections correctly. These were regarded as missing observations. As a result of this, and also the failure of some respondents to indicate their age or gender, sample sizes for the analyses that follows vary from analysis to analysis. For statistical manipulations involving measures of relationships the deletion of missing values was listwise. For all other types of measures, the pairwise option was used.

The different sub-samples were targeted to allow for greater ranges in age and educational status - important considerations when examining the potential incidence, impact, and qualitative nature of future-oriented thought. Our respondents however differed on some background

Table 1:

Demographic Characteristics of the Three Samples Included in the Study*

Variables	Samples			
	High School Sample (n = 239)	Under-graduate Sample (n = 304)	PG Students + Workers (n = 193)	Total (N = 736)
Age (Years) ^a				
M	15.51	22.52	33.28	23.88
SD	8.03	12.76	18.11	10.91
Range	13 12-21	17-44	20-56	13 12-56
Gender ^b				
Male	114 (15.53) ^c	148 (20.16)	116 (15.80)	378 (51.49)
Female	121 (16.48)	153 (20.84)	72 (9.81)	346 (47.14)
Educational Status				
Primary	-	-	1 (0.13)	1 (0.13) ^d
Secondary	239 (32.56)	-	24 (4.63)	273 (37.19)
Tertiary	-	303 (41.28)	157 (21.39)	460 (62.67) ^e

Note:

*These figures and percentages are based on corrected frequency counts.

^aEight respondents did not indicate their age and are not included in analyses involving age.

^bTwelve respondents did not indicate their gender and are excluded from analyses involving gender.

^cPercentages are in parentheses.

^dThis respondent is excluded from analyses involving level of education.

^eThe percentages do not add up to 100 because of the missing values.

variables worthy of note. The Yoruba ethnic group far outnumbered all ethnic groups put together by as much as a ratio of 5:1. This is, however, not surprising since the site of the study was a University that draws the majority of its workforce and student population from the Yoruba-speaking area of the country. Nonetheless, it appears that the sample is a fair replica of the university community given the age, gender and educational status of this population.

3.3 MEASURES

The instruments employed in this study comprised mainly of self-administered paper-and-pencil questionnaires. The majority of which were purposely developed for use in this study. Three established scales were also included in the study. One of these is the measure of personal disposition. The other two are included for validation purposes.

3.3.1 Personal Data Form

The personal data form contained eleven items, all on demographic variables. It was designed to provide data on some of the independent variables of interest in the study. These variables are age, gender and educational status. Most of the items on the questionnaire were open-ended. Response alternatives were provided only for the items on gender and marital status (see Appendix A, part 1). The other items, particularly those on age and educational status, were purposely left open so that respondents would tell us in their own words the age and the highest level of education

they had attained at the time of the study. These information could then be coded to suit the needs of this investigation.

3.3.2 Future Possibilities Questionnaire (FPQ)

This mixed idiographic-nomothetic (loosely structured); open-ended free-response questionnaire was purposely designed for this study. The FPQ is the measure of the dependent variable under investigation. In constructing the questionnaire, the investigator borrowed heavily from the formats used in previous studies on goal-type constructs and on future orientation (Cantor *et al.*, 1987; Lecci, Okun & Karoly, 1994; Nurmi, 1987a, 1989b, 1992; Nurmi *et al.*, 1994; Trommsdorff *et al.*, 1982). The instructions and items on the questionnaire were designed to prompt respondents to think about and write down their:

- (a) hopes, goals and plans for the future,
- (b) fears and worries about the future,
- (c) ages at which they hoped or feared the events will occur, and
- (d) the amount of control they thought they could exert on the occurrence or prevention of the hoped for or feared events (See Appendix A, parts 2 and 3).

The assumptive base upon which the FPQ was constructed is that people, through their comments and spontaneous expressions, could: (1) define their own motives and goals, (2) the depth of their thinking about the future, (3) the emotional feelings they attach to the future, (4) and rate their goals along a series of evaluative dimensions such as their perceived

personal control over their own future. It might be argued that respondents are being required to make inferences and judgements about domains and characteristics far removed from their normal daily pre-occupations, inferences which under certain conditions have been shown to be fallible (Nisbett & Wilson, 1977). As would be apparent from the instructions used in eliciting the hopes and fears, every attempt was made to stay as close as possible to concrete thought and experiences, thus minimizing inferential leaps that may be difficult to make. It is also believed that the FPQ is assessing the content, rather than the process of future oriented thought. Respondents are not being asked to speculate on the origins, the whys or hows (processes) of their goals. Furthermore, the direct solicitation approach employed increase the likelihood that the units being tapped would be personally meaningful and relevant pursuits which reflects aspects of people's daily reality.

The FPQ has two separate subdivisions: the Future Possibilities Questionnaire - Hope Scale (FPQ-H) and the Future Possibilities Questionnaire-Fear Scale (FPQ-F). The FPQ-H asked respondents about their hopes, goals and plans with the following open-ended item: "People often think about the future. In doing so they see it in terms of hopes and plans. Please write down in the lines below, your own goals, hopes, dreams and plans for the future". The FPQ-F, investigated respondents fears by instructing them as follows: "The things people think about in the future are not always pleasant. Now we would like you to think about your fears and worries concerning the future. Please write them in the lines below". There

were ten numbered lines allowed for respondents to write down their hopes and 10 lines to write down their fears.

The numbered lines were divided into columns. Column a was for respondents to write down their hopes and fears respectively. In column b they were required to write down the ages they believed they would be when each of the hopes or fears mentioned in column a will occur. Finally, respondents were asked to evaluate each of the hopes or fears mentioned in column a according to the amount of control they felt they could exert on its occurrence or prevention in column c. Respondents were instructed to carry out these later parts of the task after first writing down their hopes and fears. Thus, when they had written down their hopes or fears, they were asked to go through what they have just written and for each hope or fear to indicate "the age you will be when it will come true or may happen". Next they were asked to evaluate the hopes or fears according to the amount of control they felt they had over its occurrence or prevention along a 4-point Likert-type response format ranging from 1 "totally due to you" to 4 = "totally due to factors other than you".

The decision to allow 10 lines for respondents to write down their hopes and fears was based on two factors. The first was to put the FPQ measure in line with measures employed by previous workers in the research field (Lamm *et al.*, 1976; Mehta *et al.*, 1972; Nurmi, 1987; 1989b; 1992; Nurmi *et al.*, 1994; Trommsdorff *et al.*, 1979; Wallace, 1956; Wallace & Rabin, 1960). Furthermore, research on future orientation and other goal-type constructs have shown that respondents frequently mention, on the

average, 4 goals and 3 fears (Nurmi, 1987; 1989b; Lecci *et al.*, 1994). The second reason was perhaps more subjective. It was reasoned that providing equal number of spaces and placing a limit on the number of hopes and fears that could be mentioned by respondents would make for ease of data manipulation. Moreover, placing such a limit would prevent response fatigue and the tendency for repetitions that might make coding difficult. In sum, therefore, the FPQ seems to have followed the tradition of previous research in the area and at the same time provided ample space for respondents to write down as many hopes or fears as come to their minds. This is buttressed by the fact that a few respondents listed as many as 12 different hope statements even though only 10 lines were provided.

3.3.3 Attitude and Internality Scale (AIS)

This purposely constructed questionnaire has two sub-scales: The attitude toward the future and control beliefs about the future sub-scales. Items 1 to 3 which constitute the attitude toward the future (ATF) sub-scale was designed to measure respondents' global affective attitudes toward the future. Items 4 to 7 which form the control beliefs about the future (CBF) sub-scale was designed to assess respondents' global feelings of internality or externality about the future. These sub-scales were included in the study as a means of externally validating the affective tone and perceived personal control scores on the FPQ respectively. As such, it is respondents' total scores on each of the sub-scales that were of interest in this study.

Items included in the scale were sourced in two ways. The first was

through discussions with colleagues. The other was from the review of the literature in such areas as hope (Erickson & Post, 1975), control-type constructs (Burger, 1984; Tennen, Suls & Affleck, 1991; Thompson, 1981), future-orientation (Nurmi, 1991; Lamm *et al.*, 1976; Trommsdorff, 1983; Trommsdorff *et al.*, 1982), and goal-type constructs (Cantor & Norem, 1989; Emmons, 1986; Lecci *et al.*, 1994; Little, 1989). From these sources, a total of 14 items (7 each for the ATF and CBF) was drawn up. These were then given to colleagues who were asked to assess the face validity of each item. Their responses led to the reduction in the number of items. The reduction was done in such a way as to minimize overlap in item content so that accurate estimates of the degree of correlation between the ATF and CBF on the one hand and other constructs on the other, can be obtained. The final AIS is a brief, 7-item (3 items for ATF and 4 for the CBF) force-valid questionnaire. The items comprising the AIS may be found in Appendix A, part 4.

Each of the items on the scale (that is, both the ATF and the CBF) has a 4-point Likert-type response format. Respondents are asked to either tick or circle the appropriate number above each of the response alternatives to indicate their responses. The items are sentence stems which respondents could complete to reflect their attitudes or feelings by selecting the appropriate ending from among the alternatives provided. These response alternatives are different for each of the items. This was to guide against response set and social desirability responding. The items were worded in such a way that makes them easily understood by and meaningful to

respondents of different ages and levels of literacy.

The items are scored from the most positive (1) to the most negative (4) response to the sentence stems. Responses that are negatively keyed are reversed prior to scoring. Respondent's total score on the ATF summed across all 3 items on the sub-scale constituted his/her hopefulness score. Thus, the lower the score on the ATF the more positive the respondent's affective attitude toward the future. Scores can range from 3 to 12. The same procedure was followed in scoring the CBF. Specifically, a respondent's scores on items 4 to 7 were summed to get his/her internality score. The lower this score the more internal the respondent's control beliefs about the future.

3.3.4 Life Orientation Test (LOT)

This scale, developed by Scheier and Carver (1985) as a measure of dispositional optimism-pessimism, was included in this study as the measure of personal disposition, the major independent variable. Its main attraction rest on the fact that the assumptive base for the construction of the scale regard optimism as a personality disposition that underlie the self-regulation of behaviour (Carver & Scheier, 1981; 1982; 1983; Scheier & Carver, 1985). The idea being that people's present actions are greatly affected by their beliefs about the probable outcomes of those activities (Scheier & Carver, 1985, 1987). This is very similar to our definition of dispositional orientation toward the future. Several other factors were taken into consideration in selecting the LOT. This included: (1) The LOT is a viable

instrument for assessing people's generalized sense of optimism (Scheier & Carver, 1985; Scheier *et al.*, 1986, 1994). (2) It measures future-oriented expectancy rather than a generalized gloss on one's achievement, past and present (Little, 1989). (3) The LOT has previously been employed in studies involving other goal-type constructs (Cantor & Norem, 1989; Cantor *et al.*, 1991; Emmons, 1986; Strathman *et al.*, 1994; Little, 1989). These studies have shown that optimistic persons (identified by means of the LOT) have a high sense of efficacy regarding expected success in pursuing personal goals; restrict their evaluations of personal goals to the future tense, adjust more favourably to important life transitions; and generally report a high quality of life. (4) Moreover, several theorists have argued cogently for the utility of even an "illusory glow optimism" as a future-oriented strategy in the pursuit of goals (Lazarus, 1983; Taylor & Brown, 1988).

The LOT is a 12-item scale, made up of 8 test items and 4 filler items. Only the 8 test items are used to derive the optimism-pessimism score. Of these 8 test items, 4 are worded in a positive direction and 4 are worded in a negative direction. The negatively worded items are reverse coded before scoring. Respondents are asked to indicate the extent of their agreement with each of the items, using the following response format: 1 = strongly disagree, 2 = disagree, 3 = not sure, 4 = agree, and 5 = strongly agree. The response format employed in this study differs from Scheier and Carver's (1985) original in two respects. First, although the original format was anchored at 0, it was anchored at 1 for ease of scoring. Secondly, the "neutral" response alternative was changed to "not sure" so that all our

respondents will understand the term.

Although the LOT has since been revised, involving the removal of two of the test items (Scheier *et al.*, 1994), the original 12-item version was employed in this study for two major reasons. The first is that the revised scale was not available as at the time the questionnaire administration phase of the study was conducted. Secondly, most previous studies used the original version. Nevertheless, Scheier *et al.* (1994) reports a high correlation (in the '90s) between the original and revised LOT. Thus, there seems to be no reason to believe that the revised scale would have produced any appreciable differences in the findings. Items comprising the original LOT are presented in Appendix A, part 5. Responses to the 8 test items are summed to compute an overall optimism score with high scores representing greater optimism.

Scheier and Carver (1985) reported a Cronbach's alpha of .76 and a test-retest reliability coefficient of .79 (over a 4 week interval) for the original version of LOT. Evidence of convergent and discriminant validity are being compiled with respect to a number of personality variables (Scheier & Carver, 1985; 1992; Scheier *et al.*, 1986; 1994). For example, Cantor and Norem (1989) recently found that the LOT correlates strongly with Beck *et al.*'s (1974) measure of Hopelessness ($r = -.67, P < .01$). Nevertheless, the indices of reliability and validity for this scale as found in this study are described later.

3.3.5 Religious Orientation Test (ROT)

This was purposely constructed for this study. The ROT was constructed in line with the behavioural approach to the study of religiosity (Edmunds, 1981; Kobuzal, 1975; Soderstorm & Wright, 1977). In developing the ROT, it was assumed that individuals differ in the degree, direction, intensity and strength of their religious beliefs and devotion. These differences might occur not only grossly between those actively involved in formal religion and those not at all religiously committed, but also among active believers in the different religious faith. Such differences could occur in at least three levels: (1) the strength of subjective belief, (2) observance of religious rituals and practices, and (3) the importance of religious belief in secular life. Care was therefore taken to ensure that each of these dimensions was adequately represented in the final scale. Also, taking into consideration the multi-religion nature of the country, efforts were made to ensure that items selected did not represent the views and practices of any one particular religious faith.

Within the limits specified above, indications as to which broad questions might be relevant in the measurement of religiosity were derived from two main sources. The first was through discussions with colleagues and students who were considered experts and active believers, respectively. The second source of items was the review of the extant literature (Allport, 1959; Campbell, 1981; Davidson, 1972; Edmunds, 1981; Huismans, 1994; Kobuzal, 1975; Soderstorm, 1977, Soderstorm & Wright, 1977). In the next phase of the development of the ROT, the 12 selected

items were given to colleagues who helped to assess the face validity of each item. Their responses were collated and those items that had poor relevance judgements were dropped. A further reduction in the number of items was done to minimize overlap in item content. Finally, students of various religious persuasions (2 christians, 2 moslems and 2 non-religious students) were asked to assess the relevance and meaningfulness of the retained items to them and their beliefs. After passing through these rigorous tests, the final ROT is a brief 6-item face-valid scale which appear applicable to the diverse religious faiths in the country. Items comprising the final ROT are presented in Appendix A, part 6.

The instruction primed respondents to think of their religious life. The items were framed in the interrogative format and respondents are asked to indicate their answers on a 5-point Likert type scale. The response alternatives differed for two reasons. The items being in form of questions, efforts were made to provide answers that will be meaningful to each question. Secondly, it was reasoned that providing different response alternatives will guide against response set and social desirability responding. The item on the strength of belief asks respondents to rate their subjective religiosity in response to the question: "How religious do you consider yourself to be?" The response alternatives range from 5 = "not at all religious" to 1 = "very religious". This item is phrased in such a manner that people not actively involved in formal religion can express their sense of self as religious. The observance dimension is measured by 4 items assessing the frequency of scripture reading, prayer, attendance at religious functions, and

passive observance. Finally, the importance of religion was measured by a single question: "How important is your religious belief in your daily life?" Responses to each of these items are scored from the most positive alternative (1) to the most negative (5). Item scores are then summed to get a respondents' religiosity scores. Thus, low scores indicate a deep religious orientation and high scores indicate superficial religious orientation. Information on the reliability and validity of the ROT are presented below.

3.3.6 Purpose in Life Test (PIL)

This scale was developed by Crumbaugh and Maholick (1964) as a measure of the sense of meaningfulness and purpose in life. The PIL was included in the study as a means of externally validating all other scales used in the study. This test has been employed previously in studies involving religiosity (Crandall & Rasmussen, 1975; Edmunds, 1981; Paloutzian, 1981; Paloutzian *et al.*, 1978; Soderstorm, 1977; Soderstorm & Wright, 1975) and goal-type constructs (Klinger, 1977; Tryon & Radzin, 1972).

The PIL is a 20-item paper-and-pencil test in which the respondent rates him/herself on a 1-7 point scale for such variables as "I am usually: completely bored" to "exuberant, enthusiastic", "My life is filled with despair" to "good things", and so forth. Although the test has undoubtedly proven useful, some investigators have questioned its coverage. For instance, Klinger (1977) is of the opinion that by including items that measure individual's feeling states, such as depression, the test measures not only the sense of meaningfulness but also some of its consequences.

Thus, the PIL may not be useful in its original form as a research instrument since it casts too wide a net. Furthermore, Paloutzian (1981) found that the items that differentiate most between religious converts and non-converts were those that had emotional and cognitive tone. Following these observations, items that appeared too difficult for our respondents to understand, were related to mood states, had interpersonal relations content, and/or were repetitive in wording or response anchors were removed. Thus, of the original's 20 items, only 12 are retained for this study. Of those items retained, some slight changes were made in wording to make them easily understandable to our respondents. The items comprising the PIL as used in this study are included in Appendix A, Part 7.

The PIL was scored from the most positive response alternative (1) to the most negative (7). Thus, a low score represents a high sense of meaning; a high score indicates some degree of existential frustration or lack of perceived meaning in life. No reliability indices for the original scale were available, however, several sources (literature cited above) report some satisfactory data on the validity for the PIL.

3.3.7 Awaritefe Psychological Index (API)

This scale was included in the study as a means of externally validating all the other scales used in this study. The API was developed by Awaritefe (1982) as a self-report measure of the incidence rate of general psychopathology in clinics and on the general population. The scale is available in three forms; A, B, and C; they comprise 112, 48 and 51 items

respectively. The 21-item mood scale of the form A was used in this study. The items are composed of single words or simple short phrases that are easy to understand. Participants were asked to indicate whether they had done or felt any of the symptoms listed within the past seven days, using a 3-point response scale (2 = Yes, 0 = No, 1 = ? (I am not sure)). Item responses are summed to obtain a respondent's mood score so that high scores indicate higher levels of distress. Items comprising the API-A (Mood scale) used in this study may be found in Appendix A, part 8.

The API's basic psychometric properties are well established (Awaritefe, 1982; Imade, 1986), and it has been used successfully in the past with different community-based populations (Dada and Awaritefe, 1993; Ibude, 1983; Idehen, 1993; Mbazaezue, 1982; Mgbemena, 1983).

3.3.8 Health Behaviour Questionnaire (HBQ)

This purposely constructed scale was included in the study as a means of externally validating all the other scales. One method of demonstrating the usefulness of individual-differences measure is to show that it predicts response patterns in theoretically expected ways. For example, people who are concerned with the future could be expected to take more interest in their health. Thus, to demonstrate the predictive abilities of the scales used in this study the impact of these variables were tested on health behaviour. To assess health-related behaviour, respondents were asked about their general and specific health behaviours by means of the HBQ.

In constructing the HBQ items were sourced mainly from the extant literature in the area (Greenberg, 1983; Steptoe & Wardle, 1992). The items were framed in the interrogative format and the response alternatives differed for reasons advanced earlier. A majority of the items had the Yes/No format. Some of the other items carried the multiple response format. The full HBQ is presented in Appendix A, part 9. Items assessed by the Yes/No format had a score of either 2 (Yes) or 1 (No), while the multiple response items were scored from the most positive anchor (1) to the most negative (4). The score on each of the items were summed to derive a respondent's health behaviour score.

3.4 QUESTIONNAIRE ADMINISTRATION

As noted above the purposive convenience sampling technique was employed in recruiting respondents for this study. Since the actual procedure employed with each subsample differed, they are described separately. Problems encountered in administering the questionnaires are noted where appropriate.

Moremi High School constitutes the only institution within the University community from which a large sample of adolescents in the younger age range can be drawn with relative ease. It has a large student population. Thus, it was possible to draw 80 students from each of the three senior classes. Due to limited space, classes in this school are often very large with two or three arms of a class sharing a single classroom. This presented the problem of getting an objective sampling frame that could be

used to randomly select subjects. In the alternative, the classrooms used by one class (for example, SSI) were numbered and lots were drawn to select the classrooms that will be involved in the study. In this way, three classrooms of students were selected from a total of 15 senior high school classes. Once a classroom was picked, all the students present in class that day were administered the questionnaires. The questionnaire administration was carried out with the help of one of the class teachers. This teacher introduced the investigator and his students to the class and appealed to them for help in filling the questionnaires. The questionnaire booklets were then distributed to every student present. They were given preliminary information about the study. Instruction was both verbal and written. The investigator read out the covering appeal/instructions and the specific instructions to each questionnaire. The respondents were asked to follow along by reading from their own copies. A detailed explanations of these instructions was given and the students were invited to ask questions. This question and answer session lasted for about 20 minutes in each classroom visited. In answering the questions raised by the students, the investigator stressed that respondents must write down only (1) those things they think could actually happen in their life time and (2) what they think of themselves and their future and not what they think others expect of them. After the question and answer session those students who had any doubts about participating in the study were excused. Fortunately, there were not many of such. Having ensured that students in one classroom understood what was required of them, the investigator left the supervision of questionnaire

completion to the class teacher present and a group (5 in number) of parts III and IV psychology students. This allowed him time to physically visit all three classrooms selected for questionnaire administration on the same day. In each classroom of respondents the same procedures as described above were repeated. Thus, with the high school respondents questionnaire administration took place in an ordinary classroom situation. The teachers postponed the classes they should have held in those classrooms during the course of the questionnaire administration. The administration took 2½ to 3 hours in each classroom and was concluded in one day. The students were well motivated to respond since they have had earlier experiences with psychological testing and the questionnaire administering team presented the exercise as fun. The questionnaire administration took place about two weeks after resumption from the first term vacation. With the exception of one student who defaced her questionnaire booklet, there was a one hundred percent response rate among this subsample. (See Table 2 for details).

Adolescents of the older age bracket were recruited from among the undergraduate student population of the University. Experience with these students during the pre-test run of questionnaire administration, showed that they needed some time (outside the lecture hours) to complete the questionnaires due to the pressure of work. They were, therefore, allowed to take the questionnaire booklets away, fill at their own convenience, and return to the investigator or their course instructors during the course of the week or the next lecture hours, which in these instances was one week

later. The classes were visited during lecture hours and the questionnaires distributed to all students present. Thereafter the investigator read, to the hearing of all, the covering and specific instructions to the questionnaires. The respondents were asked to read along, using their own copies. The instructions were explained and the students given time to ask questions, which were answered satisfactorily.

Teachers at Moremi High School, the UPE Primary School and the University Staff School constituted another population group that was sampled. The convenient sampling technique was employed here. The teachers were approached individually in the staff common rooms (Moremi High School) or in their respective classrooms (UPE Primary School and Staff School) during rest hours/periods. Their help in completing the questionnaires was solicited. To those who agreed to participate in the study, the investigator explained the nature and purpose of the study. They were then asked to go through the instructions and if there was any point they could not understand fully to ask questions. Such questions were answered to the satisfaction of the prospective respondent. The respondents were given a week to complete the questionnaire. In the three centres, the questionnaires were given out on the same day and collection was done on the same day also. Despite appeals and reminders during the course of the week, about half these teachers failed to complete the questionnaires. Most of those who outrightly refused to fill the questionnaires complained about the "personal-privacy invading" nature of the questionnaire - particularly the FPQ. Assurances of the anonymous nature of the questionnaires did not

change their minds. There was only a 61% response rate from the teachers (See Table 2).

The postgraduate students were approached in their respective rooms at their hall (Murtala Mohammed Hall) of residence. They were administered the questionnaires individually. The same procedure as employed with the teachers was followed. Although they were given the one week option, a sizeable number however elected to complete the questionnaires in the presence of the investigator either on the very day the questionnaires were given to them or on the day it was supposed to be collected back. Two members of this group could not be contacted again (they had completed the course-work component of their diploma programmes) for collection of the questionnaires.

Practically the same procedures employed with the teachers and the postgraduate students was followed in administering the questionnaires on academic and non-academic staff, with some slight variations. The academic and non-academic staff involved in this study were recruited from the Faculties of Social Sciences, Law, Education, Science, Technology, and the College of Medical Sciences. These faculties were selected through the drawing of lots. However, the convenient sampling method was used in selecting respondents. The majority of the non-academics were approached in general offices or typing pools in which there were often 3 to 5 persons. They were, however, still approached individually and appealed to for help on individual basis. Most of them complained of being unable to fill the questionnaires immediately due to pressure of work and so were given the

one week option. This category of respondents proved the most difficult to relate with. They had to be reminded constantly and the time limit extended by one week. Even then, many returned the questionnaires unfilled. In fact several, who claimed to have misplaced the questionnaire booklets, became openly hostile when the investigator persisted in his attempt get the questionnaires back. There was a poor response rate among this group respondents (See Table 2).

Table 2

Summary of Questionnaire Distribution and Response Rate

Subsample	No. given out	No. returned	Lost or rejected	% returned	% Total
High School Students	240	239	1	99.58	32.47
Undergraduates	320	303	17	94.68	41.17
Postgraduates	50	48	2	96.00	6.52
Teachers	60	37	23	61.67	5.03
Non-academic staff	80	48	32	60.00	6.52
Academic staff	100	61	39	61.00	8.29
Total	850	736	114	86.59	100

The academic staff were approached individually in their offices and an appeal made to them as colleagues for help. The majority of those approached declined participating in the study, claiming the questions were too personal (that is, invaded their privacy). Although assured and reassured of confidentiality, most refused to change their minds and even those that

earlier on collected the questionnaire returned them unfilled. Of those that finally filled the questionnaire, many did so in the presence of the investigator after persistent reminders. Thus, the highest number of non-return, rejections and blank questionnaires as well as missing information was recorded among these subsamples (that is, teachers, academic and non-academic staff) as Tables 1 and 2 amply attest.

3.5 CODING AND SCORING OF THE FPQ

Column a of both the Future Possibilities Questionnaire - Hope Scale (FPQ-H) and the Future Possibilities Questionnaire - Fear Scale (FPQ-F) asked respondents, in an open-ended format, to generate lists of idiographic future-oriented goals. To allow for nomothetic comparisons, these had to be categorized into life domain categories through which the content of personal goals can be examined. Once this was done, several set of scores could then be derived for each respondent. The life domains were chosen based on those used most frequently in previous studies on future orientation and other goal-type constructs (Blais *et al.*, 1990; Cross & Markus, 1991; Emmons, 1993; Emmons & McAdams, 1991; Fricke, 1979; Lecci *et al.*, 1994; Little, 1983; Markus & Nurius, 1986; Nurmi, 1992; Nurmi *et al.*, 1994; Poole & Cooney, 1987; Seginer, 1988a; Trommsdorff *et al.*, 1979). Fifteen life domains or content categories were isolated from this literature. Although a pre-analysis showed that a few of these life domains were infrequently mentioned by our respondents, the decision was taken to retain all of them since respondents gave differing prominence to them

depending on whether they were talking about hopes or fears. We also decided to create an open category - miscellaneous - into which all elicited goals that could not be classified into any 1 of the 15 content categories could be placed.

The following life domain or content categories were used in this study. They are children, education, family, health, interpersonal relationship, leisure, marriage, national affairs, occupation, property, religion, retirement, self-development and growth, social services, travel, and miscellaneous. The definitional criteria for coding into these categories, together with illustrative examples are included in Appendix B. The categories were not mutually exclusive. A given goal statement could overlap one or more life domain categories. Therefore, dual codings were permitted, as some respondent combined multiple categories in one sentence (for example, "To travel abroad to complete my studies"). However, such cases were rare.

The lists of personal goals generated were independently classified by two trained coders. Each goal statement was placed in one of the 16 life domains on the basis of its thematic content. The coders were postgraduate psychology students. The training involved 4, two-hour discussions of the various categories and the definitional criteria for coding into them. During these discussions a coding manual (See Appendix B) was drawn up. The coding scheme was further refined by the investigator during the pre-analysis. As of the time the coding was done, the assessors were blind to the hypotheses of this study. After coding separately, the two assessors and the investigator compared codes and came to agreement on differences,

which occurred in less than 3% of the cases and most often involved goals that were infrequently mentioned or were not detailed enough, for example, single word goals.

The pre-analysis showed that responses to the FPQ were stated in relatively short sentences. This might have been due to the use of columns which effectively divided the pages into two near equal halves (See Appendix A, parts 2 and 3). This seems to have been beneficial as it made coding quite straightforward. The following scores were calculated for each respondent based on his/her responses to the FPQ items. In all cases, the variables related to hope and fear were calculated separately.

1. *Overall Hope or Fear Score:* This was derived from the total number of hopes or fears mentioned by the respondent, no matter the thematic content. For example, a respondent who listed 6 hopes on the whole, had an overall hope score of 6. If this same respondent did not make any fear statement s/he had an overall fear score of 0.
2. *Domain-Specific Scores:* Each life domain category was scored by summing up the number of pertinent hopes or fears generated by the respondent in that domain. For example, a respondent who wrote the following hopes: "To get married", "To have 3 beautiful children", "To be a good mother"; received a marriage hope domain-specific score of 3. If she had written nothing related to marriage or own nuclear family, she would receive a marriage hope domain-specific score of 0. The same procedure was employed in scoring the content of fear. Thirty-two (16 domain-specific hope and 16 domain-specific fear)

scores were thus derived for each respondent.

3. *Number of Hope or Fear Domains Mentioned:* This was derived by simply counting the number of life domains into which a respondent's overall hope or fear were coded. For example, if the respondent in 2 above also wrote down 4 education-, 1 health-, and 2 occupation-related hopes, s/he would receive an overall hope score of 10 and a number of hope domains mentioned score of 4. The same procedure was followed in respect of the number of fear domain mentioned scores.
4. *Goals:* This was derived by summing overall hope and fear for each respondent. For example, our respondent in 2 and 3 above had an overall hope score of 10, if s/he also listed 5 fear statements s/he would have an overall fear score of 5. His/her goal score therefore be $10 + 5 = 15$.
5. *Affective Tone Scores:* This was calculated with the formula:

$$\text{Affective tone} = \frac{\text{Overall number of Hopes mentioned}}{\text{Overall number of Goals (Hope + Fear)}} \times 10$$

From our examples above, the respondent's affective tone score will be: $10/15 \times 10 = 6.66$.

Decimals were rounded up to the nearest whole number. Therefore, this respondent's affective tone score is 7. The higher the affective tone score the more positive the respondent's outlook on the future.

6. *Domain-Specific Extension Scores:* For each goal mentioned by a

respondent, the depth of future orientation was assumed to be equal to the anticipated age of its occurrence minus the respondent's age at the time of the study. That is:

$$\text{Anticipated age} - \text{Present age} \dots\dots\dots (a)$$

For example, the 18 year-old respondent who hopes to get married at the age of 25 years, had an extension of 7 years (that is, 25-18) for this particular hope.

To calculate the domain specific extension score, the extension scores for hopes mentioned in a domain were added together and divided by domain-specific hope score. That is:

$$\text{Domain-Specific Extension Score} = \frac{\text{Sum (Anticipated age} - \text{Present age)}}{\text{Domain-specific content score}} \dots\dots (b)$$

Following our previous examples, suppose the respondent also hoped to have 3 beautiful children at age 35 years and be a good mother from the age of 35 years, then her marriage-related hope domain-specific extension score was calculated as follows:

$$\frac{(25 - 18) + (35 - 18) + (35 - 18)}{3} = 10.33 \text{ years} \dots\dots (c)$$

Decimals were rounded up to the nearest whole number.

7. *Overall Extension Scores:* This variable measured how far into the future a respondent projected his/her overall hope or fear. It was derived by summing the domain-specific extension scores (from 6 above) and dividing by the number of hope and fear domains mentioned (from 3 above). Thus, Overall extension of hope score =

$$\frac{\text{Sum (Domain-specific extension scores)}}{\text{Number of hope domains mentioned}} \dots (d)$$

Following our example, if our respondent hoped for straight A's at age 21 years, to graduate at age 23 years, and register for a master degree at age 28 years, her education-related hope domain-specific extension will be:

$$\frac{(21 - 18) + (23 - 18) + (28 - 18)}{3} = 6 \text{ years} \dots (e)$$

In calculating her overall extension of hope score (assuming she mentioned hopes in only those two domains) the results of c plus e were added and divided by 2. That is:

$$\frac{10.33 + 6}{2} = 8.16 \text{ years}$$

Decimals were rounded up to the nearest whole number.

8. **Domain-Specific Perceived Personal Control Scores:** In calculating the domain-specific perceived personal control of hope or fear score for a respondent, the control ratings of all hopes or fears mentioned in that domain were added together and divided by the domain-specific content of hope score. That is:

$$\frac{\text{Sum (Control ratings for hopes mentioned in a domain)}}{\text{Domain-specific hope}}$$

If our respondent in the examples given above felt her getting married was mostly due to others (3), her having three beautiful children mostly due to herself (2), and her becoming a good mother totally due

to herself (1), then her domain-specific perceived personal control of marriage-related hope score is:

$$\frac{3 + 2 + 1}{3} = 2$$

Decimals were rounded up to the nearest whole number. The higher the domain-specific perceived control score the less personal control beliefs the respondent hold about his/her hopes or fears related to that domain.

9. *Overall Perceived Personal Control Scores:* To derive overall perceived control scores the domain-specific control for each domain coded for the respondent are summed and divided by the number of hope or fear domains mentioned. That is:

$$\frac{\text{Sum (Domain-specific perceived personal control)}}{\text{Number of domains mentioned}}$$

If our respondent from the above examples rated her getting straight A's as totally due to others (4), her graduating mostly due to others (3), and her registering for a master degree as mostly due to herself (2), then her perceived personal control of education-related hopes is:

$$\frac{4 + 3 + 2}{3} = 3$$

To get her overall perceived personal control of hope score (assuming she did not mention hopes in other life domains) her domain-specific perceived control of marriage- and education-related hope scores were added together and divided by 2 (the number of hope domains mentioned). That is:

$$\frac{2 + 3}{2} = 2.5$$

Decimals were rounded up to the nearest whole number. Our respondent receives an overall control score of 3, which may be interpreted as meaning that the occurrence of her future hopes are mostly due to factors other than herself. Thus, the higher the overall perceived personal control score the less personal the respondents control beliefs about the future.

The scoring procedure outlined here meant, in principle, the derivation of one hundred and five different scores for each respondent. These scores are based on the responses to both FPQ-H and FPQ-F scales. There were, however, a considerable number of missing values, especially for the temporal extension of fear scores. A sizeable number of the respondents did not indicate when they expected some of their fears to occur. Such were coded as zero.

3.6 RELIABILITY AND VALIDITY OF THE MEASURES

The indices of reliability and validity of the measures involved in this study were estimated by means of several methods that are outlined below: First, however, a general statement concerning the face validity of these measures appear in order. That is, all the measures employed in the study appear to be face-valid. This was established principally through consultations and discussions with colleagues and others considered experts in the subject-matter areas of the respective questionnaires. The specific

procedures employed in establishing the face-validity of each scale has been described previously in section 3.3. In this section, the other methods used in estimating the reliability and validity of Future Possibilities Questionnaire (FPQ), Life Orientation Test (LOT), and Religious Orientation Test (ROT) are described. These are the principal scales employed as the measures of the dependent (FPQ) and the independent (LOT and ROT) variables, respectively. The other scales are used to estimate the validity of these three. Since the specific procedures employed differed for each of these three scales, they are described separately.

3.6.1 Future Possibilities Questionnaire (FPQ)

The first question here concerns the reliability of the life domain coding system. In answering this question, an attempt was made to establish the inter-rater reliability by three different estimates. First the inter-rater reliability of the coding scheme was evaluated by means of the crude percentage rate of agreement between the two coders. Reliability rates for all life domains appear in the first and fourth columns of Table 3. It can be seen that within the hope life domains the raters attained high inter-rater reliabilities at all content categories, with agreement ranging from 95 to 100 percent. The overall average rate of agreement for the hope life domains was 97 percent. Within the fear life domains the inter-rater reliabilities were also high, ranging from 95 to 99 percent, with an overall average rate of 97 percent. Thus, as expected agreement was almost perfect for all the life domain categories and needed little interpretation.

The second estimate of inter-rater reliability was Cohen's Kappa (Cohen, 1960). The Kappa (k) statistic is an agreement index for nominal data that corrects for the extent of agreement expected by chance if the ratings are independent. Suggested benchmarks for evaluating the strength of kappa are 0.41-0.60 = moderate; 0.61-0.80 = substantial; and 0.81-1.00 = almost perfect (Landis & Koch, 1977). In this study, kappa was calculated using 0.5 as the proportion of judgements in which agreement was expected by chance. The results of this analysis are presented in the second and fifth columns of Table 3. Within the hope life domains agreement rates ranged from $k = 0.84$ to $k = 1.00$, with an overall average of $k = 0.94$.

The rates were also high within the fear life domains. Here, the inter-rater reliabilities ranged from $k = 0.86$ to $k = 0.98$, with an overall average of $k = 0.94$. These results are remarkably similar to those reported above. They indicate that in at least 84% of the time, two independent coders using the life domain coding system, placed the same goal statement in exactly the same life domain. Furthermore, the kappa also indicate an almost perfect agreement between the two coders on all the life domain categories.

Finally, inter-rater reliabilities were computed for each of the hope and fear life domains by means of the Pearson product-Moment correlation (r). In this analysis, the ratings given each category by both raters were correlated. The results appear in the third and sixth columns of Table 3. It

can be seen that results were congruent with those already reported. Within the hope life domains, the inter-rater reliability coefficients ranged from 0.43 to 1.00 with an average of $r = 0.98$. For the fear life domains the inter-rater reliability coefficients ranged from 0.84 to 1.00, with an overall average of $r = 0.99$. Thus, the results of all three estimates of inter-rater reliability are analogous. It appears, however, that the fear life domains are more reliable than the hope domains.

To examine the stability of the FPQ over time, test-retest reliability coefficients were computed for the different variables derived from the questionnaire. Eighty respondents who filled out the questionnaires during the pre-test run returned 6 weeks later during the main study to fill out identical set of measures. These coefficients were not expected to be extremely high because the analysis dealt with dynamic rather than static qualities. However, as Table 4 indicates, the hopes and fears appear to be stable over time. In addition, the attributional evaluation of these goals also seem not to have changed much over the period considered. For each of the 15 content (life domain) categories of hope, significant correlations were found between hopes mentioned in Time 1 and those mentioned in Time 2. The stability coefficients ranged from 0.51 ($P < .001$) for social service to 0.93 ($P < .001$) for children's lives, with an overall average of 0.89 ($P < .001$). With respect to fears, the corresponding figures were from a low of 0.56 ($P < .001$) for interpersonal fears to 1.00 ($P < .001$) for fears related to self-development and growth, with an overall average of 0.95 ($P < .001$).

Table 3

Inter-Rater Reliability for the Assignment of Goal Statements to Life Domain Categories

Life Domain	Hope			Fear		
	% Agreement	Cohen's k	r	% Agreement	Cohen's k	r
Children's Lives	98	0.96	0.843	98	0.96	0.966
Education	95	0.90	0.912	97	0.94	0.966
Marriage	98	0.96	0.917	99	0.98	0.956
Interpersonal	97	0.94	0.910	99	0.98	0.955
Health	99	0.98	0.879	94	0.88	0.976
Leisure	99	0.98	0.426	99	0.98	1.000
Occupation	94	0.90	0.865	97	0.94	0.955
Family	98	0.96	0.880	99	0.98	0.973
Property	92	0.84	0.950	95	0.90	0.963
Religion	95	0.90	1.000	99	0.98	0.999
Retirement	96	0.92	0.939	96	0.92	0.835
Self	98	0.96	0.935	93	0.86	0.835
Social Service	99	0.98	0.906	98	0.96	0.840
National Affairs	99	0.98	0.979	98	0.96	0.995
Miscellaneous	100	1.00	0.933	99	0.98	0.896
Overall	97	0.94	0.983	97	0.94	0.992

Note: All r's are significant at the .001 level, df = 734.

It would appear that the most stable life domains were those pertaining to the normative life goals of the age group involved in this phase of the study. Thus, stability coefficients could not be calculated for such hopes as leisure and national affairs domains that were mentioned infrequently by this age

group. Nonetheless, the analysis showed that between 80 percent and 90 percent of the respondents generated at least two of the hopes and fears they mentioned earlier, 6 weeks later.

The test-retest reliability analyses also indicated that the temporal extensions of hope and fear were stable over time (see the second and fifth columns of Table 4). The patterns of test-retest correlations for this dimension of hope and fear were remarkably analogous to this already reported for content. For hopes, the stability coefficients for temporal extension ranged from 0.52 ($P < .001$) for Marriage to 1.00 ($P < .001$) for health related hopes. The corresponding figures for the temporal extension of the fear life domains were from 0.53 ($P < .001$) for property to 0.95 ($P < .001$) for children's lives.

The analyses also showed the attributional evaluation of goals to be relatively stable over time. The stability coefficients for the perceived personal control of hopes ranged from 0.57 ($P < .001$) to 0.97 ($P < .001$), with an overall average of 0.81 ($P < .001$). The corresponding figures for the perceived personal control of fears were from 0.50 ($P < .001$) to 0.89 ($P < .001$). It thus seems that the FPQ is relatively stable over a 6 week period.

Internal consistency could only be assessed for the perceived personal control of hopes and fears. For this purpose, the generated goals were treated as items on a 15-item scale with a 4-point response alternatives. Thus, a respondent's score is an average computed across the number of

Table 4

Test-Retest Reliabilities of the FPQ Scales

Life Domain	Hope			Fear		
	Content	Extension	Control	Content	Extension	Control
Children's Lives	0.93	0.80	0.93	0.74	0.95	0.50
Education	0.67	0.62	0.73	0.66	0.92	0.75
Marriage	0.80	0.52	0.69	0.78	0.85	0.68
Interpersonal	0.80	0.60	0.59	0.56	0.83	0.66
Health	0.81	1.00	0.59	0.74	0.73	0.65
Leisure	0.00	0.00	0.00	0.00	0.00	0.00
Occupation	0.60	0.86	0.70	0.87	0.93	1.00
Family	0.75	0.93	0.93	0.74	0.94	0.81
Property	0.76	0.76	0.97	0.81	0.53	0.72
Religion	0.71	0.76	0.80	0.81	0.89	0.89
Retirement	0.82	0.99	0.91	0.72	0.81	0.67
Self	0.55	0.56	0.72	1.00	0.73	0.53
Social Service	0.51	0.92	0.78	0.59	0.56	0.61
National Affairs	0.00	0.00	0.00	0.00	0.00	0.00
Overall	0.89	0.97	0.81	0.95	0.90	0.82

Note: All r 's are significant at the .001 level, $df = 78$.

hopes or fears s/he generated. It should be noted that due to the dynamic nature of goals, their attributional evaluations may be different at different points in time. The results of the internal consistency analysis were consistent with this constraint: The Cronbach alphas for both hopes and fears were from low to moderate, therefore only the overall figures are reported. The alpha coefficient for hope life domains was 0.51, while that for fear life domains was 0.70. In addition, all of the life domains seem to add

equivalently to Cronbach alpha. That is, the alpha levels remained relatively unchanged when individual domains were systematically removed from the analyses. Thus, for the perceived personal control of hope, Cronbach alpha (with items systematically deleted) ranged between 0.45 to 0.51. The corresponding figures for fear were 0.64 and 0.70. Overall, the FPQ seems to exhibit an acceptable level of internal consistency.

In an effort to demonstrate the discriminant validity of the FPQ, several of the variables derived from it were intercorrelated among themselves and also correlated with the independent and control variables. Findings were exactly as might be expected; thus offering initial support for the convergent and divergent validity of the FPQ scales. As can be seen in Table 5, the FPQ scales related differently among themselves and with the other measures. Perhaps the most consistent relationship was between internality (that is, internal control beliefs about the future) and the FPQ variables. Attributions about the causes of events affects what an individual expects about the future. People who feel they can control events in their lives will not only have more hopes than fears but will also extend those hopes farther into the future. In line with this reasoning, we found that, compared to people who are less internal in their control beliefs about the future, those higher in internality mentioned more hopes, extended such hopes farther into the future, and believed they can exert personal influence over the occurrence of their hopes. On the other hand, people who hold less internal control beliefs tended to expect their fears to occur sooner than those with high internality. Finally, the former also expressed less personal

control over the prevention of their fears than those high in internality.

Hopefulness related to only three of the FPQ variables. Those who are habitually hopeful extended their hopes into the near future. That is, they expected their hopes to occur sooner than people who are less hopeful about their future. On the other hand, the less hopeful compared with the more hopeful, mentioned more fears, expected such fears to occur in the near future and felt unable to prevent the occurrence of such fears. Optimists, compared to pessimists mentioned less fears, believed they could exert some personal influence on the occurrence of their hopes and extended their fears further into the future. In the same vein, people with high meaning in life extended their fears farther into the future than those with less purpose in life. The former also held more personal control beliefs about the prevention of their fears.

In brief, the Future Possibilities Questionnaire appears to provide a psychometrically sound measure of future-oriented goals. The subscales, while relating to each other appear to be relatively independent. The magnitude of intercorrelations and correlations that were obtained are such that the different subscales and the FPQ itself does not appear to be completely redundant with each other and with other measures. Thus, the FPQ would seem to possess an adequate level of inter-rate reliability, internal consistency, test-retest reliability, and convergent and discriminant validity to make it suitable for the purpose of this study.

Table 5: Intercorrelations of the independent, dependent and control variables.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Age (1)																	
Gender (2)	-.138																
Educational Status (3)	.674	-.103															
Optimism (4)	-.078	-.136	-.156														
Religiosity (5)	.073	-.152	.156	-.041													
Overall Hope (6)	-.262	.036	-.150	-.004	-.035												
Extension of Hope (7)	-.199	-.051	-.202	.040	.026	.280											
Control of Hope (8)	.101	.010	.116	-.069	-.003	-.067	.087										
Overall Fear (9)	-.122	-.017	-.065	.083	.017	.560	.216	.010									
Extension of Fear (10)	-.103	-.131	-.170	.064	-.015	.062	.188	.041	.111								
Control of Fear (11)	.191	-.086	.224	-.007	.111	-.020	-.045	.062	.036	.017							
Affective of Tone (12)	-.042	.049	-.083	-.085	-.059	.115	-.024	-.036	-.687	-.058	-.047						
Purpose - PIL (13)	-.247	.024	-.279	.143	.143	-.018	.051	-.006	-.007	.109	-.102	.020					
Hopefulness (14)	.086	-.090	.048	.235	.265	-.042	.076	-.006	.090	.005	.098	-.155	.069				
Internality (15)	.068	.051	.042	.101	.000	-.066	-.074	.145	.016	-.080	.145	-.040	.029	.189			
API-Mood* (16)	.004	.189	.000	.257	.085	-.035	.069	.155	-.081	.014	.024	.453	.321	.004	.150		
Health Behaviour* (17)	.001	.034	.000	-.527	-.224	-.243	-.028	-.087	.082	-.068	.023	.336	-.032	.028	-.056	.066	

Note: *N = 80 - σ coefficients above 0.21 significant at .05, those above 0.28 significant at .01, and those above 0.35 are significant at .001 level.

All other N = 5666: All r coefficients above 0.06 are significant at .05 level, those above 0.08 significant at .01, and those above 0.11 are significant at .001 level.

3.6.2 Life Orientation Test (LOT)

The computed indices of reliability of the LOT in this study were in the main similar to those reported for the original scale (Scheier & Carver, 1985; Scheier *et al.*, 1994). The test-retest reliability, based on a sample of 80 (38 male and 42 female) undergraduates, over a 6 week period was 0.97 $P < .001$. This indicates that the LOT is stable over time. Cronbach's alpha was computed for the main study sample of 736 respondents. The coefficient alpha for this sample was 0.62. The alpha coefficient remained relatively unaffected by the systematic deletion of items from the scale, ranging between 0.57 and 0.59. The corrected item-scale correlation was in the range of 0.28 to 0.36, while the estimated common variance was in the range of 1.02 to 2.28. These indices indicate that the individual items contributed equally to the coefficient alpha and that none was redundant with the others. Since the LOT has been previously factor analysed, only a principal factors analysis was performed on it. This analysis indicated that a two-factor solution provided the best fit for the data. These two factors were not in any way different from the original information provided by Scheier and Carver (1985). Of the 8 test items, 4 loaded on Factor 1 which comprised the positively keyed items (loadings ranged from 0.15 to 0.38). Factor 2, comprising the negatively keyed items loaded in the range of 0.12 to 0.41.

The LOT related in conceptually meaningful ways to the other measures in the expected directions. Our findings were also remarkably

similar to those provided in the literature on the scale (Cantor & Norem, 1989; Scheier & Carver, 1985, Scheier *et al.*, 1994; Smith *et al.*, 1989). Compared to pessimistic persons, those higher in optimism report having more internal control beliefs about the future. They score higher on measures of hopefulness, purpose in life, and health behaviour (see Table 5). On the other hand, optimists score lower on a scale of psychological distress (API-Mood). Also, in line with the consistent gender differences reported for the LOT (Scheier & Carver, 1985; Scheier *et al.*, 1994) we were not surprised that the women in our sample appeared less optimistic than the men.

In sum, the Life Orientation Test would appear to possess sound psychometric properties that justifies its inclusion in this study.

3.6.3 Religious Orientation Test (ROT)

To examine the test-retest reliability of the ROT, the scale was administered on a sample of 80 respondents over a 6-week period. The correlation between the first and second administration was 0.75, $P < .001$. This indicate that the ROT is relatively stable over this time period. Internal consistency of the ROT was assessed by computing the Cronbach's alpha for the 736 respondents involved in the main study. The computed coefficient alpha was 0.80. The corrected item-total correlations were all in the moderate range (0.44 to 0.64); suggesting that each of the items is at least partially measuring the same underlying construct, but not to such an extent that any one of the items is overly redundant with the others. In

addition, all of the items seem to add equivalently to Cronbach's alpha. That is, the alpha remained relatively unchanged when individual items were systematically removed from the scale. The alpha with items deleted ranged between 0.75 and 0.80. The split-half reliability was 0.82. A principal factors analysis of the ROT showed that one factor which accommodated all 6 items, accounted for 82% of the variance. The factor loadings ranged from 0.11 to 0.28.

Two pieces of evidence demonstrating the validity of the ROT are presented. First, data concerning the relationship between the ROT and other relevant measures was assessed. Evidence for the notion that religiosity is related to a sense of meaningfulness has been provided in the literature (Klinger, 1977; Orbach *et al.*, 1987; Paloutzian, 1981). To assess the relationship between meaning in life and ROT, respondents completed the Purpose-in-Life Scale (PIL, Crumbaugh & Maholick, 1964). The correlation between the ROT and PIL was 0.143, $P < .001$ ($n = 736$). We found, as expected, that the ROT related positively with hopefulness and health behaviour (See Table 5). That is, deeply religious people compared to the superficially religious, are more hopeful about the future. They are also more likely to engage in positive health behaviours. The low correlations between these scales suggests that the ROT is not completely redundant with the other measures.

The second piece of evidence of the discriminant validity of the ROT comes from the comparisons of various groups. This analysis showed that

the ROT has the ability to differentiate between groups in expected directions. We found that males not only appear to be more religious overall (as measured by the ROT), $t(734) = 4.99, P < .005$; but that they consistently scored higher on all the constituent items of ROT than females. Also, as expected on theoretical grounds, older persons described themselves as more religious on the ROT than younger people, $r(734) = .073, P < .05$.

In brief, the Religious Orientation Test appear to be a psychometrically sound measure of religiosity, defined as a person's subjective degree of religious commitment. The ROT would seem to possess an adequate level of test-retest reliability, internal consistency, and discriminant validity to make it suitable for use in research when such a measure is desired.

3.7 DATA ANALYSIS

The results were analysed separately for hopes and fears. The analyses addressed the impact the independent variables had on the four dimensions of future orientation. However, the analysis started with a preliminary examination of the percentage distributions of the contents of the goal statements generated by the respondents. In this phase of the analyses the frequency of mention of hopes and fears generated in the different domains of life were compared by the Student's t-test. Similar comparisons were also conducted on the temporal extension, perceived personal control and affective tone scores. The Chi-square test of

independence was used to compare the proportions of respondents that mentioned the different life domains of hopes and fears.

In the main analysis, the data was submitted to a five-way age (adolescents, young adults, middle age, late adulthood) x gender (Male, female) x educational status (secondary, tertiary) x personal disposition (optimism, pessimism) x religiosity (deep, superficial) multivariate analysis of variance (MANOVA). The principal dependent measures were the overall scores on the four dimensions (content, extension, control, affective tone) of future orientation. The different life domains were treated as repeated measures of the first three dimensions. The MANOVA was supplemented with the Pearson's r , t-test, One-way Analysis of Variance (ANOVA), analysis of covariance (ANCOVA), and multiple regression. Planned pairwise comparisons were carried out by means of Tukey's (1977) Honestly Significant Difference (HSD).

The other statistical procedures were employed because the assumption concerning the interdependence among the dependent variable measures could not be satisfied. As reported earlier, the FPQ instructed respondents to write down as many or as few hopes statements as come to their minds. This resulted in no respondent referring to all life domains. Also a sizeable number of the cells were empty due to factors enumerated earlier (see sections 3.2 and 3.4). Thus, the age groups were compared using the one-way-ANOVA and univariate F-ratios. Pairwise comparisons were carried out by means of Tukey's (1977) HSD. Gender, educational status, personal

disposition and religiosity groups were compared by means of the Student's t-test for independent groups. In the ANCOVA, the independent variables were treated alternately as covariates. This was to determine whether differences found were independent of the observed correlations between independent variables. ANCOVA thus served as a manipulation check in order to determine the true effects of each of the independent variables.

In order to investigate which set of independent variables best discriminated between the future orientation dimensions and their related life domains, a series of hierarchical regression analyses were carried out separately for each dimension. All the statistical procedures employed were run by means of the base and advanced statistics programmes of SPSS PC+ (1990) version 4.01.

CHAPTER FOUR

RESULTS

In the first phase of data analyses a preliminary examination of the Future Possibilities Questionnaire's (FPQ's) responses was performed. The results showed that 5028 hope and 2655 fear statements were generated. The number of hope statements ($M = 6.850$, $SD = 3.062$, range 0-15) was significantly greater than the number of fear statements listed by the respondents ($M = 3.312$, $SD = 3.138$, range 0-12; $t[1470] = 21.866$, $P < .0001$). This was also evident when the number of life domains into which the hope and fear statements were categorized was compared. Hope responses ($M = 4.262$, $SD = 1.764$) were coded into a significantly greater number of life domains than fear responses ($M = 2.586$, $SD = 2.808$, $t[1470] = 16.100$, $P < .0005$). These results indicate that on the average, seven hopes and three fears were produced by the respondents. Furthermore these hope and fear statements were easily classified into an average of four and three life domains, respectively.

There were also evident differences in the number of statements coded into the hope and fear life domains. In the majority (about two thirds) of the life domains, significantly more hopes than fears were mentioned. The reverse occurred in only about a third of the life domains. A summary of these results are presented in Table 6. The numbers of fears mentioned in

the interpersonal, health, extended family and national affairs domains were significantly greater than the number of hopes generated. There were no statistically significant differences between the hopes and fears mentioned in the leisure and self-development and growth domains. On all other life domains the number of hopes mentioned were significantly more than the fears.

The relative frequency of each life domain category was calculated by dividing the number of hopes or fears in the domain by the total number of hopes or fears listed by the respondent. It was then possible to rank order the life domains by frequency of mention. This analysis showed that the most frequently mentioned hopes were related to education. This domain also ranked high among the fears, emerging as the second most salient fear-related life domain. These results are presented in Table 7.

Marriage was the most commonly mentioned fear, but it was second in the order of mention of hopes. This difference in the frequency of mention between hopes and fears was true for almost all the life domains, with the exception of self-related domain of life which was fifth in both dimensions and leisure-related goals which was the least mentioned hopes and fears. On both hopes and fears the first four life domains (education, marriage, property and occupation) accounted for 65% of all goal statements generated (75% and 52% of hopes and fears, respectively).

Table 6
Mean Content, Extension, and Control of Hope and Fear Domains

Life Domain	Hope			Fear			t-test Comparisons		
	Content (1)	Extension (2)	Control (3)	Content (4)	Extension (5)	Control (6)	1 vs 4	2 vs 5	3 vs 6
Children's Lives	0.214 (0.506)	2.261 (6.454)	0.359 (0.859)	0.154 (0.458)	0.882 (3.891)	0.371 (1.061)	2.386 ^a	4.956 ^c	-0.227
Education	1.454 (1.357)	2.643 (3.087)	1.354 (1.164)	0.571 (0.923)	0.826 (1.918)	0.803 (1.371)	14.593 ^a	13.550 ^a	8.323 ^d
Marriage	1.365 (1.057)	6.710 (6.098)	1.508 (1.206)	0.580 (0.975)	2.691 (5.839)	0.873 (1.414)	17.634 ^a	14.516 ^c	-9.269 ^d
Interpersonal	0.045 (0.260)	0.265 (2.329)	0.034 (0.484)	0.091 (0.320)	0.577 (4.381)	0.191 (0.757)	-3.079 ^b	-1.707	-3.232 ^b
Health	0.050 (0.219)	1.905 (10.752)	0.149 (0.690)	0.383 (0.718)	3.653 (12.028)	0.713 (1.424)	-12.065 ^d	-2.937 ^b	-9.657 ^d
Leisure	0.005 (0.074)	0.125 (1.404)	0.034 (0.272)	0.012 (0.177)	0.027 (0.420)	0.030 (0.303)	-0.985	1.813	0.087
Occupation	0.974 (0.816)	5.246 (5.110)	1.538 (1.311)	0.243 (0.521)	1.481 (4.178)	0.547 (1.240)	20.568 ^a	14.456 ^b	15.033 ^a
Family	0.132 (0.388)	1.247 (4.726)	0.251 (0.749)	0.243 (0.500)	2.229 (8.604)	0.542 (1.252)	-4.747 ^c	-2.711 ^b	-5.407 ^c
Property	1.332 (1.232)	6.538 (6.593)	1.378 (1.294)	0.296 (0.624)	1.928 (5.761)	0.597 (1.276)	20.361 ^a	14.267 ^a	15.998 ^a
Religion	0.258 (0.577)	1.620 (6.920)	0.282 (0.830)	0.155 (0.405)	0.561 (4.277)	0.246 (0.866)	3.931 ^c	3.527 ^b	0.787
Retirement	0.155 (0.434)	4.005 (11.924)	0.279 (0.827)	0.059 (0.355)	0.787 (5.284)	0.103 (0.566)	4.671 ^c	6.687 ^d	4.791 ^c
Self	0.315 (0.703)	1.786 (5.980)	0.488 (1.029)	0.345 (0.766)	1.416 (5.534)	0.570 (1.210)	-0.783	1.230	-1.411
Social Service	0.222 (0.505)	1.908 (5.429)	0.363 (0.91)	0.042 (0.239)	0.458 (3.567)	0.080 (0.506)	8.733 ^d	6.045 ^d	7.357 ^d
Travel	0.281 (0.530)	2.396 (5.511)	0.543 (1.098)	0.063 (0.269)	0.426 (2.848)	0.145 (0.689)	9.954 ^d	8.602 ^d	8.336 ^d
National Affairs	0.035 (0.225)	0.275 (2.293)	0.085 (0.502)	0.352 (0.845)	1.107 (4.378)	0.676 (1.406)	-14.566 ^a	-4.561 ^c	-10.719 ^a
Miscellaneous	0.010 (0.192)	0.033 (0.886)	0.017 (0.210)	0.030 (0.213)	0.121 (1.478)	0.059 (0.408)	-26.128 ^a	-1.382	-2.479 ^a
Overall	6.850 (3.062)	8.634 (5.67)	2.105 (0.931)	3.312 (3.138)	6.912 (2.483)	2.465 (2.329)	21.866 ^a	7.312 ^d	-3.892 ^c

Note: n = 736; Standard deviations appear in parentheses. Superscripts mean ^aP < .02; ^bP < .01; ^cP < .001; ^dP < .005; ^eP < .0001. All t-tests comparisons of hopes and fears are two-tailed.

Table 7

Life Domain Categories of Goals, Hopes, and Fears with Relative Frequencies and Ranks

Life Domain	Goals		Hopes			Fears		
	n	rf	n	rf	rank	n	rf	rank
Education	1486	0.193	1067	0.212	1	419	0.158	2
Marriage	1428	0.186	1002	0.199	2	426	0.160	1
Property	1195	0.155	978	0.194	3	217	0.081	6
Occupation	895	0.116	717	0.147	4	178	0.067	7.5
Self	484	0.063	231	0.046	5	253	0.095	5
Health	318	0.041	37	0.007	12	281	0.106	3
Religion	303	0.039	189	0.037	7	114	0.043	9
National Affairs	284	0.037	26	0.005	14	258	0.097	4
Family	275	0.036	97	0.019	11	178	0.067	7.5
Children	270	0.035	157	0.031	9	113	0.042	10
Travel	252	0.033	206	0.041	6	46	0.017	12
Social Service	194	0.025	163	0.032	8	31	0.012	14
Retirement	157	0.020	114	0.022	10	43	0.016	13
Interpersonal	100	0.013	33	0.006	13	67	0.025	11
Leisure	13	0.002	4	0.001	16	9	0.003	16
Miscellaneous	29	0.004	7	0.002	15	22	0.008	15
Total	7683	1.000	5028	1.000		2655	1.000	

Note: n = number of responses in the life domain.
rf = relative frequency.

The ranking also showed that the first 10 most frequently mentioned life domains accommodated 96% of the hope and 95.5% of the fear responses.

The separate analysis of the temporal extension scores of hopes and fears revealed that respondents projected their hopes ($M = 8.634$, $SD = 5.675$, range 0-97 years) farther into the future than they did their fears ($M = 6.912$, $SD = 2.483$, range 0-86 years; $t [1470] = 7.312$, $P < .005$). The

results in respect of temporal extension are also presented in Table 6. This result indicate that the average future time span of the respondents ranged from seven to nine years. Furthermore, the respondents expected their fears to occur sooner than their hopes. This suggests a rather negative outlook on the future. The results of the domain-specific temporal extensions provide further evidence in support of this observation. It was only in about a fifth of the life domains that fears were significantly expected to actualize later in the future than hopes. These life domains (health, extended family, and national affairs) were also those in which more fears were generated. Another pertinent observation that can be made from Table 6 is that more than half of the fear domain- specific temporal extensions were very short. The means of these temporal extensions were all less than one year. The corresponding number of hope domain-specific extensions is only three. This is below the number that may be expected by chance. This suggests that the respondents' fears extended into the very near future. Furthermore, most of these fears appear to be in the open present (that is, they were both present and future oriented).

The separate analysis of the perceived personal control scores (see Table 6) showed that the respondents believed they could exercise more personal control over the occurrence of their hopes ($M = 2.105$, $SD = 0.931$) than the prevention of their fears ($M = 2.465$, $SD = 2.329$, $t[1470] = -3.892$, $P < .001$). However, when the domain-specific perceived personal control scores were examined, this direction of difference was evident for only about a fourth of the life domains. While respondents felt they could

exert personal control over their interpersonal-, health-, extended family-, and national affairs-related hopes more than the related fears, they held the same beliefs with regards to seven (education, marriage, occupation, property, retirement, social services, and travel) domain-specific fears. Specifically, the respondents believed they could exert more personal control over their fears than their hopes in these latter group of life domains. It is worthy of note that the former domains in which respondents hope related domain-specific personal control beliefs were significantly greater than their fear-related domain-specific control beliefs were also those in which significantly more fears were generated. Nonetheless, it appears that respondents anticipated more personal control over the prevention of their domain-specific fears than they did for the occurrence of their domain-specific hopes. Furthermore, the respondents' perceived personal control beliefs appear to be in the mid-range. This suggests that the respondents do not believe they have total personal control over their own destiny.

In the next phase of data analysis we examined the impact of the different independent variables on future orientation. This allowed us to test the major and sub-hypotheses. The results for age are presented first. In doing this, the dimensions of future orientation are considered one after the other.

4.1 AGE

Across age groups, statistical significant differences occurred in the number of hopes and fears generated. Progressively fewer goals (both hopes

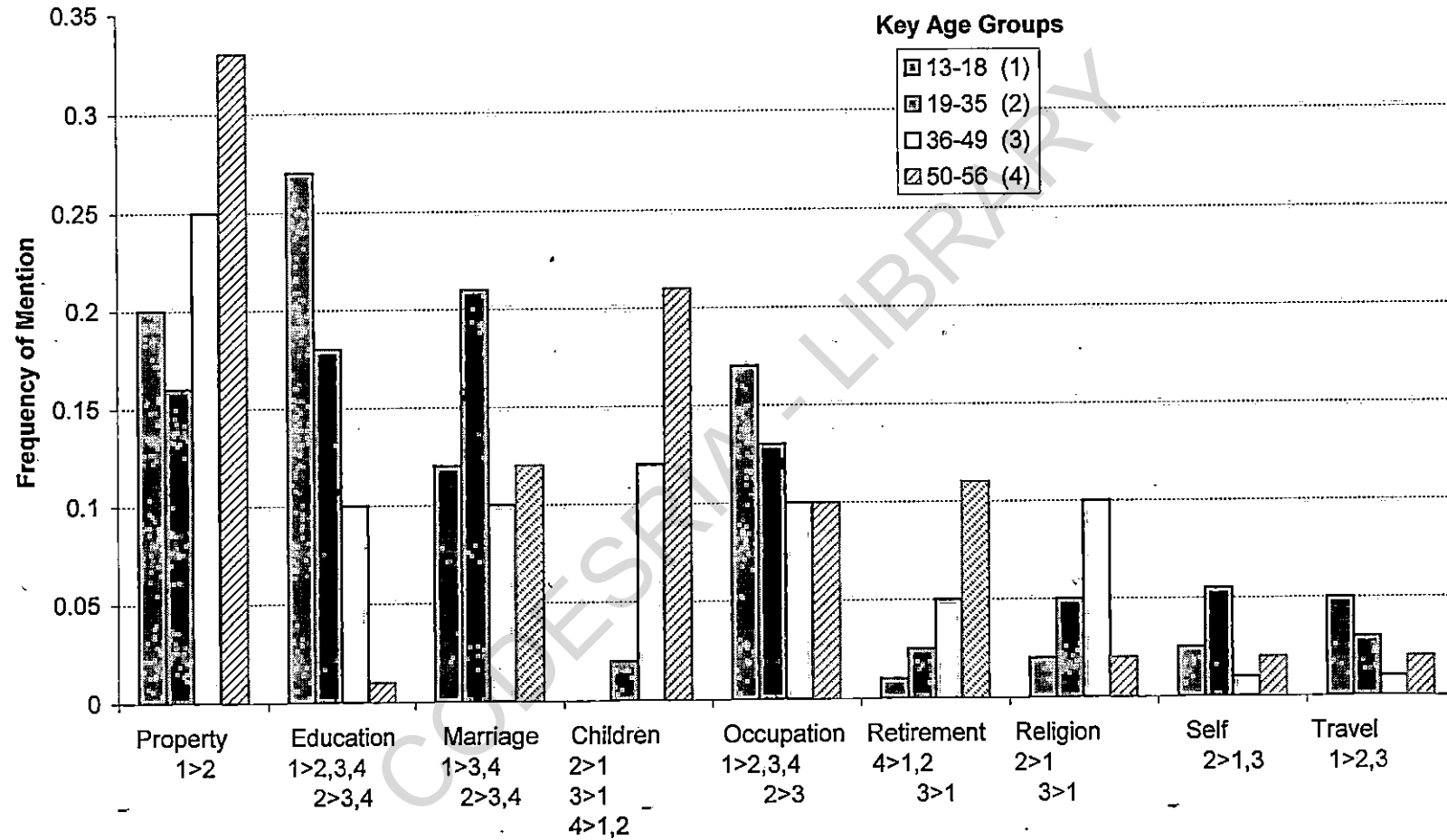
and fears) were produced by the age groups ($M_s = 7.66, 6.77, 5.17$ and 4.50 , respectively for hopes and $3.45, 3.42, 2.28$ and 3.00 , respectively for fears; $P < .00005$ and $P < .05$, respectively). Pearson's product moment correlations of age with number of hopes and fears mentioned were -0.24 ($P < .0005$) and -0.07 ($P < .03$) respectively. The four age groups also differed significantly in the frequency which they mentioned the different life domains. These are described below.

4.1.1 Content of Hope by Age

The multivariate analysis of variance indicated a significant effect of age on the overall number of hopes mentioned, $F(3, 668) = 4.20, P < .006$. Furthermore, the effect of age was evident in the frequency of mention of hopes related to children's lives, marriage, occupation, retirement, and self-development and growth. The results are presented in Appendices C1 to C16. Univariate analysis of variance by means of Turkey's-HSD procedure across age groups revealed statistical significant differences in nine of the 15 domain-specific hopes. These are illustrated in Figure 1.

As was expected, people tended to mention hopes related to the life tasks of their own age more often. Thus, the younger (13-to 18- and 19-to 35-year-old) age groups significantly mentioned education-related hopes more than members of the older (36-to 49- and 50-to 56-year-old) age groups, $F(3, 724) = 55.34, P < .00005$.

Fig.1: Content of Hope by Age with significant differences between groups set at the .05 confidence level



The younger age groups also significantly mentioned marriage-related hopes more frequently than the older generations, $F(3, 724) = 25.54, P < .00005$. The age groups also differed significantly in the frequency with which they mentioned property-related hopes, $F(3, 724) = 5.16, P < .014$. Members of the 13- to 18-year-old age group ($M = 1.49$) mentioned hopes in this domain more frequently than members of the 19- to 35-year-old age group ($M = 1.20$). The younger age groups mentioned occupation-related hopes significantly more than respondents in the older age range, $F(3, 724) = 19.26, P < .00005$. The 19- to 35-year-old respondents were more concerned with hopes in the self-related life domain than members of all the other age groups, $F(3, 724) = 6.80, P < .0002$. Travel-related hopes were mentioned more frequently by respondents in the 13- to 18-year-old group than respondents in the other age groups, $F(3, 724) = 8.67, P < .0002$. Respondents of the middle (19- to 35-year-old and 36- to 49-year-old) age groups were more concerned with religion-related hopes than either the adolescents or late adulthood persons. Hopes related to own children's future were mentioned progressively more and more often with advance in age, $F(3, 734) = 44.27, P < .00001$. The same was true of retirement related hopes. Concern with retirement appeared to start during middle age and peak at old age $F(3, 724) = 5.90, P < .0006$. No significant differences occurred in the frequency of mention of hopes in the remaining life domains not presented in Figure 1 or mentioned here. Although there was some similarities in the hopes generated by people of different ages, each of the 4 age groups revealed a uniquely characteristic set of hope-related life

domains. The expression of these hopes also differed both in specificity and configuration. The key features of each group configuration of life domains are presented in Table 8 and described below.

4.1.1a Age Group 13-18 (Adolescents)

The first column in Table 8 lists the rank order of the hope related life domains for this age group. Also listed are the relative frequencies and representative examples for each life domain. Only the 10 most frequently mentioned domains by the age group are reported. Most notable in the lists generated by the adolescents was the expansive and extremely positive nature of their hopes. They not only want to be 'rich' but 'very rich or wealthy'; not 'marry' but 'happily married to the right partner'; and so on. The pattern of hope-related life domains generated by the adolescents appear to reflect the many transitions (such as education, marriage, career choice, identity formation, and independence) they are facing. A major concern of these adolescents seem related to embracing the social roles of their own age and those of young adulthood. Thus, education, occupation and marriage rate very high in their spontaneous thought about the future. The pre-eminence given property-related hopes by this age group may be a reflection of the materialistic tendency of the whole society.

Table 8

Content of Hope by Age with Relative Frequencies and Examples of Responses

13-18 Year-olds		19-35 year olds		36-49 Year-olds		50-56 year olds	
Life Domains	Examples	Life Domains	Examples	Life Domains	Examples	Life Domains	Examples
Education (0.290)	To pass all my SSCE papers. To be admitted into the University. I want to be well read. To get a university degree.	Marriage (0.224)	To get married. Start building a family. Have a peaceful marital home. To be a good parent.	Property (0.291)	Building a personal house. Own a good car. Float a private company. To be financially successful.	Property (0.333)	To set up a small business. To change my car. Build a functional house. Having a reasonable saving.
Property (0.195)	To build a house. To buy my own car(s). To be prosperous. To become a millionaire.	Education (0.179)	To graduate from the university. To pass my professional exams. To pursue a postgraduate degree. To obtain a Ph.D.	Children (0.132)	Giving my children a sound education. To celebrate the wedding my children. To train my children. To have healthy children.	Children (0.222)	Marry out my daughters. Good education for the children. Seeing the children through university. Train my children.
Occupation (0.156)	To be an accountant. To be a medical doctor. To be the manager of a bank. To be in private practice/business.	Property (0.178)	Have a house of my own. Own a car or two. To make money successfully. Own business organizations.	Education (0.098)	Having a second degree. Increasing my formal education. Further educational attainments. Obtain a Ph.D.	Marriage (0.130)	To be happily remarried. To be more loving to my spouse. To see to the welfare of my family. Be a reasonable parent.

Marriage (0.134)	To get married. To have a life partner. To get a good spouse. To have my first child.	Occupation (0.142)	To get a good job. To become an executive. To be a successful professional. To become a politician.	Occupation (0.080)	Reach the pinnacle of my career. To earn better salary. To head a professional firm. To excel in my profession.	Retirement (0.111)	Settle down into retirement. Retire from active teaching. Start a small business after retiring. Retire into animal farming.
Travel (0.054)	To travel out of the country. To go abroad. To go overseas. To be in London	Self (0.061)	To live an independent life. Make a success of my life. To fulfill all my life desires. To live a fulfilled life.	Marriage (0.077)	Get married. Raise a family. Be a good parent. Celebrate 25th wedding anniversary.	Occupation (0.092)	Having a professional chair. To achieve the height of my profession.
Self (0.028)	To be successful in life. To be an important person. To be a well-known person. To be happy throughout life.	Religion (0.047)	Become involved in mission to Africa. To be a good christian. Seek God's face always. To preach the word of God.	Religion (0.077)	To serve the Lord full-time. To be a good christian. To be a well-known evangelist. To author christian books.	Family (0.018)	Provide for my mother. To have my grandchildren around me.
Social Service (0.023)	I want to help others. To serve my country. Help make a good society. To go for national youth service.	Social Service (0.039)	Be a leader in society. Help my former school financially. To be a philanthropist. Change society for the better.	Retirement (0.049)	Retire from university teaching. Establish a business after retirement. Set up a consultancy firm after retiring. Retire from active work.	Religion (0.018)	Maintaining my faith in God. Preparing to meet the Lord.

Family (0.018)	To take proper care of my parents. To support my parents in old age. To help my brothers and sisters. To reward my parents.	Travel (0.034)	I will like to tour the world. To travel abroad. Living in different parts of the world. See more of the country.	Social Service (0.033)	Contribute to knowledge. To be politically relevant. Contribute to the education of young ones. Giving scholarship to people.	Health (0.018)	To live a happy long life. Take care of my health.
Religion (0.017)	To be a good christian. I want to be a child of God. I want to serve God. I want to be a priest.	Children (0.033)	To give my children the best in life. To educate my children. To make my children turn out good. Make sure my children are graduates.	Family (0.031)	Provide for my parents. Be helpful to relations. See my mother regularly. Seek understanding in the extended family.	Self (0.018)	To continue to lead a purposeful life. To live in peace.
Retirement (0.011)	To retire from active service. I will retire from work. To retire at old age. To enjoy the fruit of my labour in old age.	Retirement (0.025)	Retire from public service. Retire from active politics. Retire to my village. Retire and become a pastor/vicar.	Inter-personal (0.025)	Be loving to others. Be understanding of others. To be needed by others. To be friendly.	Travel (0.018)	Opportunity to travel abroad. Do some touring.
0.926	Total	0.962	Total	0.893	Total	0.978	Total

Note: Relative frequencies appear in parentheses. Examples are illustrative of the ten most frequently mentioned life domains.

A rather startling finding here is that these adolescents are more interested in travelling out of their country rather than help (by providing social services) build it.

4.1.1b Age Group 19-35 (Young Adults)

The second column of Table 8 lists the ranks, relative frequencies and illustrative examples of hopes expressed by this age group. The hopes of this age group were described in more moderate terms than those of the adolescents. Their hopes were expressed in less extreme and expansive but rather more concrete and realistic terms. These hopes indicate that this age group were getting ready to or were in the process of 'settling down' (Levinson *et al.*, 1976) or 'putting down roots' (Chickering & Havighurst, 1981). Thus, these young adults, having made career choices (or had it made for them) were now hoping to get a job and make a success of their profession and life; to get married and start a family; achieve independence and contribute their own quota to the development of their society. Once again concern with the materialistic aspect of life was also given prominence by this age group. Here, this may be interpreted as being part of the settling down process. Since people have to acquire some trappings of life in this process. On the other hand, it may simply be a reflection of the materialistic tendency of the whole society.

People of this age group were more concerned with religion than the adolescent age group. Young adults not only wanted to be devout but also expressed the hope of helping to propagate their religion. Getting out of the

country is of much less concern to this age group than contributing to advancement of the society, unlike the adolescents. The mention of children's future indicate that some members of this age groups may already be parents and have thus become concerned not only with their own future both also those of their children. Finally, although both adolescents and young adults mentioned retirement hopes, those of latter group were more concrete, involving some rudimentary planning for life after retirement rather than the more idealistic fantasies of the adolescents.

4.1.1c Age Group 36-49 (Middle Age)

The third column of Table 8 lists the ranks, relative frequencies and illustrative examples of the hopes expressed by this age group. Respondents in this age group mentioned fewer expansive hopes. They also mentioned fewer hopes that indicate new beginnings or dramatic changes far less than either the young adults or adolescents. Instead their hopes indicate a desire for achievement in current roles and responsibilities. They seem more concerned with successful performance in roles and responsibilities already begun. No longer is 'finding the ideal life partner' or 'starting a family' important, but rather 'training the children', 'raising the family' and 'being a good parent' is now the future goal. Materialism (owning property) is also prominent in the future-oriented hopes of this age group. Having put down their roots, people may now be expecting to meet some of life's expectations by owning those trappings valued by the society. This finding confirms the earlier reports of Levinson *et al.* (1978) and Sheeky (1976) on

this age group.

Few of these middle aged respondents expressed the desire to start a new career. They were rather more concerned with achieving the best in their chosen professions. Religion is also a major area of concern to the middle aged. Like the young adults they hope both to be devout and to contribute to the propagation of their religion. Retirement-related hopes become more concrete and realistic, including plans for life after retirement. Rather than abandon the country by travelling out, it appears that members of this age group hope to contribute to its advancement by providing some social services. Finally, the middle aged appear more concerned about their future interpersonal relationships than all the other age groups. In fact they were the only age group whose frequency of mention of interpersonal relationships-related hopes ranked amongst the first ten life domains.

4.1.1d Age Group 50-56 (Late Adulthood)

The fourth column of Table 8 lists the ranks, relative frequencies and illustrative examples of the hopes expressed by this age group. The responses of this age group indicate that both current roles and those yet to be realized were still very important in their future thought. They hope both to acquire and consolidate properties; to train their children; see to the welfare of their family; and be reasonable parents. As may be expected, retirement-related hopes are a major area of concern at this age. The relative frequency of responses in the self-related life domain suggests that self-development and growth were still very important to the late adulthood

persons. Thus, while looking forward to and planning for life after retiring from formal work, their hopes do not indicate an intention to withdraw from society. This is supported by the fact that they hoped to be engaged in other activities after disengaging from formal employment. The first five life domains (property, children, marriage, retirement, and occupation) accounted for approximately 90% of all hope responses of the late adulthood group. This indicates a high degree of commonality among the hopes of this age group. In addition, the late adulthood persons seem to concentrate their future goals in a few salient domains. This suggests that their hopes are connected with life givens rather than the future as full of limitless opportunities for exploration as is true of the younger cohorts (especially the adolescents).

Next the proportions of respondents mentioning hopes in each of the life domains were calculated for the whole sample and for the different age groups separately. The extent to which the percentage rates differed across the different age groups was tested using Pearson's Chi-square. The results revealed a pattern very similar to those already reported. The largest number of hopes, were related to marriage, occupation, education, and property. However, there were evident age differences in the proportions of respondents mentioning each life domain. More adolescents and young adults mentioned hopes related to marriage, occupation and education than older respondents. In fact the proportions of respondents that mentioned these hopes decreased progressively with age. The same may be said of travel-, self-, and social service-related hopes.

Table 9

Percentages of Respondents who Mentioned Hopes Related to the Different Life Domain by Age

Life Domain	Age Group					χ^2	P
	Over- all	13-18	19-35	36-49	50-56		
n	728	242	411	63	12		
Marriage	75.7	81.8	81.0	58.7	33.3	116.11	.000
Occupation	72.8	90.9	69.3	36.5	16.6	110.33	.000
Education	72.0	76.8	74.6	41.6	0.0	214.86	.000
Property	68.4	75.5	65.5	66.7	16.7	20.59	.15
Travel	24.7	35.2	20.8	1.1	0.1	28.25	.005
Self	22.0	16.5	27.6	7.9	0.1	24.11	.06
Religion	20.2	10.8	25.8	22.2	0.1	47.70	.000
Social Service	18.8	17.3	21.1	12.7	0.0	15.84	.07
Children's Lives	18.0	3.7	39.2	54.0	58.3	176.66	.000
Retirement	12.9	7.1	14.6	20.7	33.4	24.24	.004
Family	11.8	12.4	11.7	11.1	8.3	17.31	.04
Health	5.1	4.5	4.4	11.1	8.3	5.57	.13
Interpersonal	3.0	2.9	3.3	8.0	0.0	8.52	.48
National Affairs	2.9	1.2	2.6	0.8	0.1	21.21	.01
Leisure	0.5	0.4	0.5	1.6	0.0	1.42	.70
Miscellaneous	0.4	0.4	0.0	3.2	0.0	15.89	.01

Note: Because multiple responses and dual coding were possible, the columns do not add up to 100%.

On the other hand, the mention of hopes related to children and retirement increased progressively with advance in age. The case of religion-related hopes is somewhat special. The youngest and the oldest cohort showed limited interest in this life domain. However, of the young adults and the

middle-aged over 25% and 22% respectively mentioned hopes in the domain.

4.1.2 Content of Fear by Age

The five-way multivariate analysis of variance revealed no evident age effect on the overall number of fears mentioned. However, the effect of age was evident in such domains as children's lives-, property- and travel-related fears (See Appendices C17 to C32). Univariate analysis of variance revealed statistical significant differences in the frequency of mention of 7 of the domain-specific fears. These results are illustrated in Figure 2. Only those domains in which significant differences occurred are presented. Overall the younger (adolescent and young adult) respondents generated more fears than the older (middle-age and late adulthood) respondents, $F(3, 724) = 2.63, P < .05$. Univariate analysis revealed that the means (3.45 and 3.42) respectively of the former groups were greater than that ($M = 2.29$) of the middle-age group.

As was the case with hopes, the fears generated by respondents appear to be related to the life goals of their own age. Thus, the late adulthood group and the middle-aged expressed more fears about the future of their children, than did the younger cohorts, $F(3, 724) = 17.40, P < .00005$. The late adulthood group (50- to 56-year-olds) had more fears regarding their ability to help the society (by providing social services) than the younger age groups, $F(3, 724) = 5.31 P < .001$. The members of this age group were also more concerned about their future after retirement,

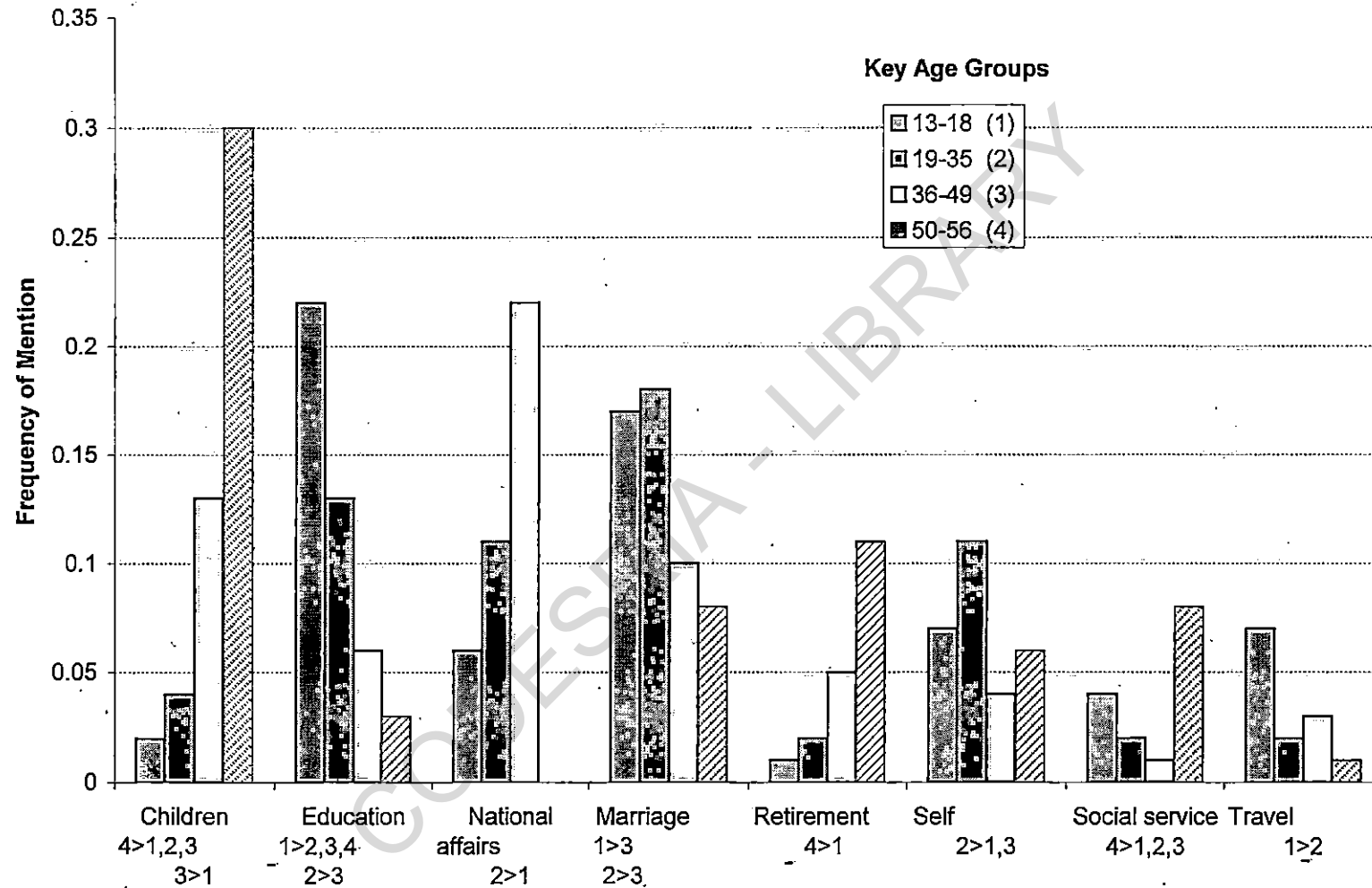
$F(3,724) = P < .005$. On other life domains, the difference were due to the younger aged cohorts producing more fears than the older cohorts. For example, the young adults and adolescents had significantly more education-related fears, $F(3,724) = 14.45, P < .00005$ and marriage-related fears, $F(3,724) = 3.77, P < .01$ than the middle-aged and the late adulthood group. The young adults were significantly more concerned with the future of the nation, $F(3,724) = 4.59, P < .003$ and their self-development and growth, $F(3, 724) = 6.81, P < .0002$. Finally, as was the case with travel-related hopes, the adolescents had more fears related to travel $F(3, 724) = 5.53, P < .001$.

The fears produced by the respondents, like the hopes, also varied in their specificity and configuration. Many respondents generated a single word fear such as 'death', 'accidents', 'miscarriages' and so on. Others vividly described their fears. For example, one respondent feared "not making enough money to live on comfortably." Also, each age group generated distinct sets of domain-specific fears. These are presented in Table 10 and described below.

4.1.2a Age Group 13-18 (Adolescents)

The first column of Table 10 ranks the fears of adolescent respondents, with relative frequencies and illustrative examples. Of all age groups, members of this generation most frequently expressed their fears as negations of positive states. For example, most of their fears were prefixed with such terms as: "being unable to", "not being able to", and "failure to".

Fig.2: Content of Fear by Age with significant differences between groups set at the .05 confidence level



This may be an indication that the more specific feared states have not yet been properly articulated in their everyday thought processes. It also relate to the fact that adolescent fears were most often expressed as the direct opposite of their hopes. For example, a respondent who listed 2 education-related hopes ('passing JME', and 'getting admitted to the university') went ahead to list the negatives of these hopes ('failure to pass JME' and 'not being admitted to the university') as her education-related fears. These characteristics of adolescents' fears was general to all the life domains as reflected in the examples given in Table 10. The fears of the 13- to 18-year-olds suggests some degree of uncertainties about several life domains concerned with the major transitions of this age. Thus, approximately 58% of their fears were accounted for by education-, marriage-, and occupation-related statements. Health worries also ranked high among the fears of the adolescents. However, these health-related fears appear still poorly articulated in their minds. Thus, their health worries relate most often to death and dying (for example, 'dying young', 'premature death', 'dying before my time', 'fatal accidents'). The other six life domains (extended family, property, self, national affairs, religion, and travel) accounted, for only about 34%, of all the fears generated by this age group. Unlike their hopes, adolescent fears were stated in less extreme terms and appear more concrete, though most appear unrealistic.

Table 10

Content of Fear by Age with Relative Frequencies and Examples of Responses

13-18 Year-olds		19-35 year olds		36-49 Year-olds		50-56 year olds	
Life Domains	Examples	Life Domains	Examples	Life Domains	Examples	Life Domains	Examples
Education (0.228)	Failing any of my subjects. Failure in the examination. Gaining admission for the course of my choice. Sponsorship in the university.	Marriage (0.172)	Not finding the right partner. Delayed marriage. Problems adapting to married life. Being unable to have children.	National Affairs (0.205)	The economy may worsen. Peace and stability of the country. The future of the nation. Political instability of the nation.	Children (0.297)	Taking adequate care of my children. Lack of employment for the children. About the future of the children. Providing for the children's future.
Marriage (0.167)	To be jilted. Marrying the wrong partner. Having miscarriages. Being unable to bear children.	Education (0.136)	Strike leading to school closure. Failing my exams. Inability to pass professional exams. Carrying over courses.	Health (0.147)	Untimely death. Old age and its problems. Serious illnesses. Accidents.	Health (0.135)	Of death. Over health problems. Having a serious illness. The state of my health.
Health (0.101)	Dying young. To be sick. Having a serious illness. Having an accident.	Self (0.124)	Difficulties achieving my aims. Not being able to lead a good life. If I would succeed in life. How to become a good person.	Children (0.141)	The education of my children. The future of the children. Taking good care of my children. Children having health problems.	Retirement (0.108)	Lack of funds at retirement. Joblessness after retirement. Life after retirement, what is it like?

Occupation (0.080)	May not get the job I like. Being jobless. Problem of unemployment. Unable to get a satisfactory job.	National Affairs (0.117)	The economy. Political instability. Poor leadership. Outbreak of war.	Occupation (0.096)	Retrenchment. Insecurity of job. Inadequate salary. Getting a better job.	Marriage (0.081)	The death of my spouse. My spouse having a serious illness. Stability of the family.
Family (0.074)	Death of a parent. If my parents get seriously ill. Worried about my parents health. Death of my brother or sister.	Health (0.108)	Worries about my health. Sickness. If I would live long. Fatal accidents.	Marriage (0.090)	Starting a family late. Delayed marriage. Divorce. Death of spouse.	Social Service (0.081)	Excessive social pressures. Contribution to the good of society. Inability to help the situation in the country.
Property (0.070)	Being unable to build a house. Being unable to buy a car. Having financial problems. Being poor.	Property (0.094)	Financial problems. Not having a house. Not owning a car. Failure of my business ventures.	Property (0.077)	Financial problems. Failure to build a house. Of poverty. Not owning a car.	Family (0.054)	Loosing a beloved member of the family. The death of my mother. Problems in the extended family.
Self (0.063)	To disappoint myself. Not achieving my goals in life. To be unsuccessful in life. I may not be able to do good in life.	Family (0.067)	Loosing a parent. Family problems. Worries about the health of my parents. Inability to care for my parents.	Education (0.058)	Not being able to obtain a higher degree. Incessant strikes delaying my program. About studying more. Obtaining the right material for my project.	Self (0.054)	Problems of old age. The unknown. Non-achievement of life goals.

National Affairs (0.056)	Strike actions. No peace in the country. State of the economy. Bad policies.	Religion (0.047)	Fear of rapture. Whether I will make heaven. May not be faithful to my God. Not fulfilling my religious obligations.	Family (0.045)	Loosing a member of the family. The death of my parents. Illness of parents. Relations having problems.	Education (0.027)	The future of education. Acquisition of knowledge.
Religion (0.043)	Temptation by the devil Not being able to win souls for christ. If I don't pray to God. If I don't put God first.	Children (0.037)	My children having problems. Training my children. If my children will be responsible. Premature death of children.	Retirement (0.045)	About life after retirement. When to retire from govt. work. Gratuities being delayed. Premature retirement.	Occupation (0.027)	Instability of the job. Inadequate salary. Job security.
Travel (0.032)	Not travelling out of the country. I may not get a visa. If I don't have the opportunity to travel.	Inter-personal (0.027)	In-law problems. Having bad friends. People are terrible and wicked. Getting support from other people.	Self (0.038)	Being a failure. Failure to achieve set goals. Maintaining a good quality of life. Not attaining expected life goals.	Property (0.027)	Financial problems. Not having a house.
0.914	Total	0.929	Total	0.942	Total	0.918	Total

Note: Relative frequencies appear in parentheses. Examples are illustrative of the ten most frequently mentioned life domains.

4.1.2b Age Group 19-35 (Young Adults)

The second column of Table 10 lists the ranks, relative frequencies and illustrative examples of fears expressed by this age group. The configuration of the fears of this age group appear to reflect their concern with attaining particular roles. This is suggested by the high frequencies of mention of marriage-, education- and self-related fears by members of the age group. While these young adults may be seen as 'settling down', there appears to be a sense of time pressure for those who have not yet made marriage or relationship commitments. Thus, those who postponed marriage in order to put career first, may now be feeling that time is running out for them to finish their education and settle down. It is not surprising, therefore, that marriage and education-related fears alone accounted for 30% of their fears. Two other fear-related life domains appeared linked with these fears in the minds of these young adults. These are children- and interpersonal-related fears. These respondents were worried about their 'children dying' or 'turning out and bad' and about having 'in-law problems' or 'having bad friends'. There thus appear to be a constellation of fears related to marriage and own family in the future thinking of these 19- to 39- year-olds. The other fears frequently mentioned by this age group may be interpreted in this light. Their self-related fears most notably concern not attaining personally and socially desired roles and statuses; their health worries relates to falling sick and death, and their religion-related fears centre around devotion. Finally, their property-related fears are not different from those of the adolescents or the other aged groups.

4.1.2c Age Group 36-49 (Middle-aged)

The third column of Table 10 lists the ranks, relative frequencies and illustrative examples of fears expressed by the middle-aged. Rather than fear making bad choices or not being able to attain conventional roles (for example, marriage), the fears of this age group suggest a preoccupation with ongoing roles and obligations. "The economy may worsen", "there may be instability in the nation" and these will affect their ability to meet these obligations. Thus concern related to the future of the nation accounts for nearly 21% of all their fears for the future. The other fear-related life domains that were frequently mentioned by this age group may be interpreted in this light also. Untimely death or serious illness may prevent them educating and training their children. The same goes for occupational fears, on through to their self-related fears, which concern mainly failing in their roles and obligations. Particularly prominent in this groups fears was the realization that they have to assure their own financial future. Thus, fear of poverty, retrenchment, and retirement were frequently mentioned by these middle-aged. The idea of a concern with the losses and increments commonly assumed to accompany aging ("old age and its problems", "serious illnesses") is suggested by their health-related fears. They appear aware of the potential consequences of aging for their ability to meet their already begun roles, statuses and obligations in the future.

4.1.2d Age Group 50-56 (Late Adulthood)

The fourth column of Table 10 lists the ranks, relative frequencies and

illustrative examples of fears mentioned by this age. Respondents in this age group mentioned fears related to the future of their children most often (approximately 30% of all their fears) than any other fear. In fact the frequency of mention of this life domain was more than twice that of the next most frequently mentioned health-related fears. Like the middle-aged, they appear to fear that the "time left to live" and work, the general state of their health and that of their spouses may seriously impair their ability to meet future obligations to themselves, their children and the society. As was the case with their hopes, the predominance of their fears related to the future of their children and their own health. This however does not suggest an interiority of focus when weighed against their concern with helping the society (social service), the extended family and the future of education. Thus, rather than fear being rejected by society, this age group appear to fear being unable to contribute to its development.

The percentages of respondents in the different age groups who mentioned fears related to the various life domains are presented in Table 11. There were fewer significant differences between the age groups on the fear life domains than on the hope life domains. Also the results mirror those already reported. Nevertheless, it is worthy of note that proportion of respondents who mentioned fears in the various life domains were in the main, similar in the majority of the life domains. Across the four age groups, the ten most frequently mentioned domain-specific fears accounted for 91.4% to 94.2% of all future-oriented fears (see Table 10).

Table 11

Percentages of Respondents who Mentioned Fears Related to the Different Life Domains by Age

Life Domain	n	Age Group					χ^2	p
		Over- all	13-18	19-35	36-49	50-56		
	728	242	411	63	12			
Education	37.5	48.8	35.5	12.7	8.3	54.64	.000	
Marriage	34.8	35.1	38.4	12.7	16.7	22.92	.08	
Health	28.0	26.0	29.2	28.6	25.0	9.55	.84	
Self	23.4	17.8	29.2	9.5	8.3	27.48	.07	
Property	22.4	17.8	26.5	16.1	8.3	15.44	.22	
Family	21.3	24.0	21.5	11.1	16.7	10.65	.29	
National Affairs	20.9	12.8	25.1	27.0	8.3	23.54	.07	
Occupation	20.5	24.4	18.7	19.0	8.3	6.72	.66	
Religion	14.1	15.7	14.8	4.8	8.3	10.04	.34	
Children	12.6	7.4	12.4	27.0	50.0	82.05	.000	
Interpersonal	8.2	8.3	9.0	0.4	0.0	2.87	.82	
Travel	5.6	10.3	3.4	3.2	0.0	18.62	.005	
Retirement	4.4	1.2	4.9	9.5	25.0	27.30	.001	
Social Servicers	3.6	1.7	4.9	0.0	16.6	27.03	.001	
Leisure	0.7	1.2	0.5	0.0	0.0	4.39	.88	
Miscellaneous	0.3	5.0	1.0	0.0	0.1	32.52	.000	

Note: Because multiple responses and dual coding were possible, the columns do not add up to 100%.

This range contrasts with the respondent's future-oriented hopes, where the ten most frequently mentioned life domains represented 89.3%-96.2% of the total number of hopes generated (see Table 8). These results indicate a greater degree of commonality among the fears than among the hopes listed by the respondents.

In addition, the younger respondents (adolescents and young adults) generated a wider range of fears than did the older respondents. For example, 10% to 49% adolescents mentioned fears in ten life domains while 17% to 50% of the late adulthood respondents mentioned fears related to only six of the 15 life domains. Thus, in the place of the seemingly minor worries of the younger cohorts, the late adulthood persons appear more concerned with life's givens (fears about own health, self and family).

Briefly stated, all the results in respect of the contents of hopes and fears support our predictions that: (1) older persons will mention significantly fewer number of goals (both hopes and fears) than younger age groups; and (2) people of different age groups will be more concerned with goals related to the developmental tasks of their own age. It was found that the number of goals generated decreased progressively with advance in age. Furthermore, the respondents in the different age groups were shown to be interested in different sets of goals that mirrors the transitions of their age.

4.1.3a Extension of Hope by Age

The MANOVA revealed no statistical significant effect of age on the overall temporal extension of hopes $F(3,668) = 1.81, P > .05$. However, there were significant effect of age on the extension of hopes related to education $F(3,668) = 3.77, P < .01$ and marriage $F(3,668) = 4.29, P < .005$ (See Appendices C1 to C16). Product moment correlation showed that the temporal extension of overall hope decreased linearly with advance in age $(734) = -0.195, P < .0005$. The test of linearity on the means of the 4 age

groups yielded similar results, $F(3, 724) = 52.08, P < .00005$. These results demonstrate that the older the respondents, the shorter their hope-related future time span. The analysis of variance also revealed a significant effect of age, $F(3, 724) = 18.04, P < .0005$. Pairwise comparison showed that the adolescents ($M = 10.76$) extended their hopes further into the future than young adults ($M = 7.57$) and the middle-aged ($M = 7.24$). There were evident age differences in eight of the domain-specific temporal extensions of hope. These results are illustrated in Figure 3. Only those domains in which significant differences were found are presented. From the figure, it may be observed that most of the domain specific temporal extensions decreased linearly with advance in age. The older the respondents the shorter the temporal extensions of their extended family-, education-, occupation-, travel-, marriage-, and property-related hopes. On the other hand, the older the respondents the farther into the future their hopes for their children extended.

The analysis of variance and pairwise comparisons confirmed these observations. Adolescents' hopes related to their education, marriage, occupation (employment), and travel extended farther into the future than those of the older generations ($F(3, 724) = 6.57, 61.98, 46.53$ and $17.96, P < .0002, \text{ and } .00005$, respectively). Similarly, adolescents expected their property-related hopes to materialize later in the future than young adults and the middle-aged did, $F(3, 724) = 16.91, P < .00005$. Thus all the results indicate that adolescents project their hopes farther into the distant future. Note that their mean overall extension was approximately 11 years, whereas

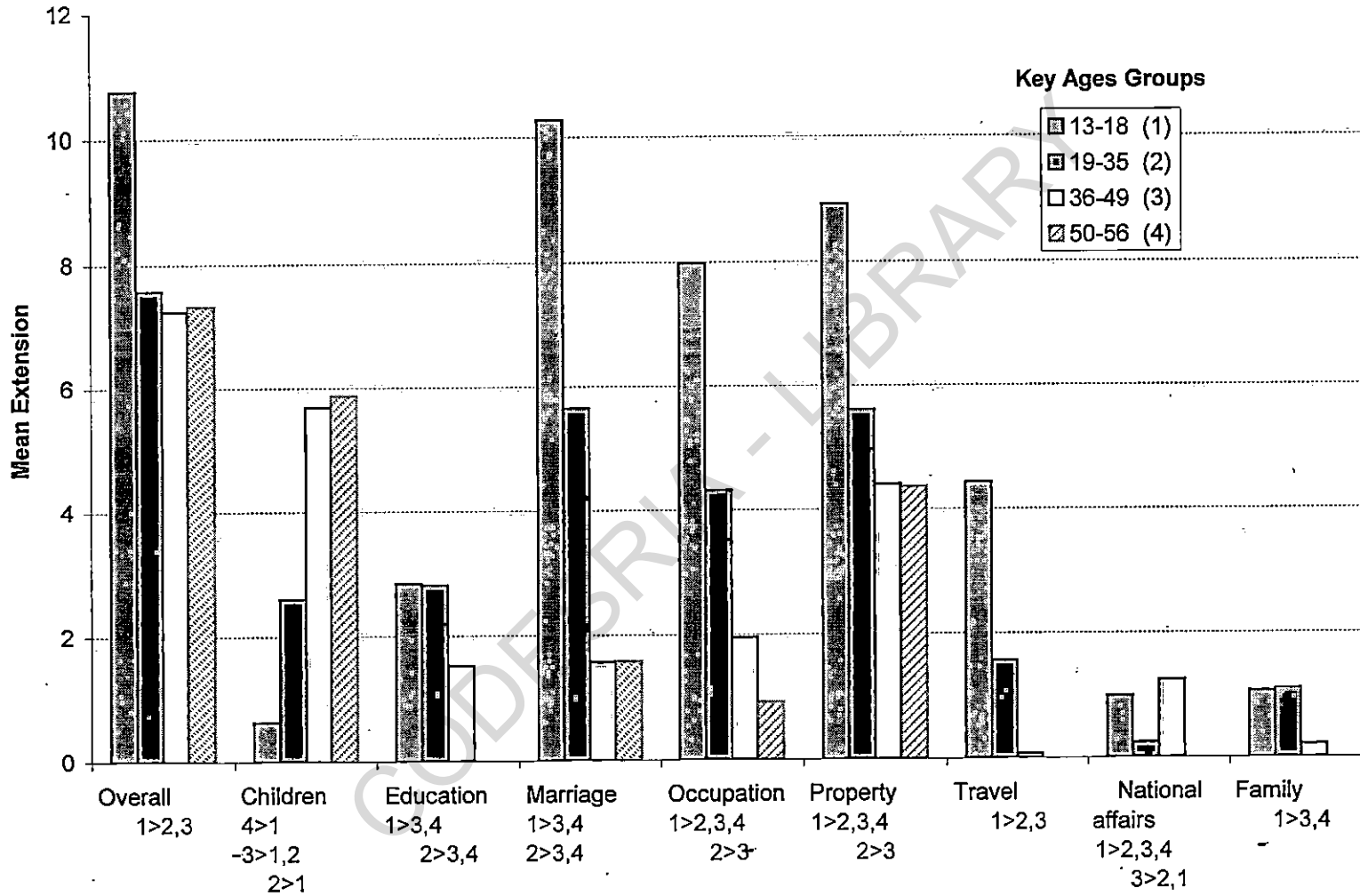
those of the other age groups were uniformly around seven years. It would seem, therefore, that adolescents view the future as an infinite, unlimited space.

Young adults' hopes related to the lives of their children extended farther into the future than those of adolescents, $F(3, 724) = 13.28$, $P < .00005$. They also expected their occupation-, education-, and marriage-related hopes to occur later in the future than either the middle-aged or the late adulthood respondents did. The middle-aged extended their hopes related to their children's lives and national affairs farther into the future than adolescents and young adults did. Finally, the late adulthood respondents extended their hopes related to their children's lives farther into the future than adolescents did.

4.1.3b Extension of Fear by Age

The MANOVA revealed a statistical significant effect of age on the overall temporal extension of fears $F(3,668) = 2.62$, $P < .05$. Furthermore, age significantly influenced the temporal extension of marriage-, property-, religion-, retirement-, and social services-related fears (See Appendices C17 to C32). Product moment correlation showed that the temporal extension of overall fear tended to decrease linearly with advance in age, $r(734) = -0.094$, $P < .01$. Test of linearity indicated similar results, $F(3,724) = 6.84$, $P < .01$. The results suggest that the older the respondents, the shorter their fear-related future time span. This tallies with the results in respect of the temporal extension of hopes. The results of the analysis of variance on the overall and domain-specific temporal extension of fear scores are illustrated

Fig.3: Extension of overall domain specific Hopes by Age with significant differences between groups set at the .05 confidence level

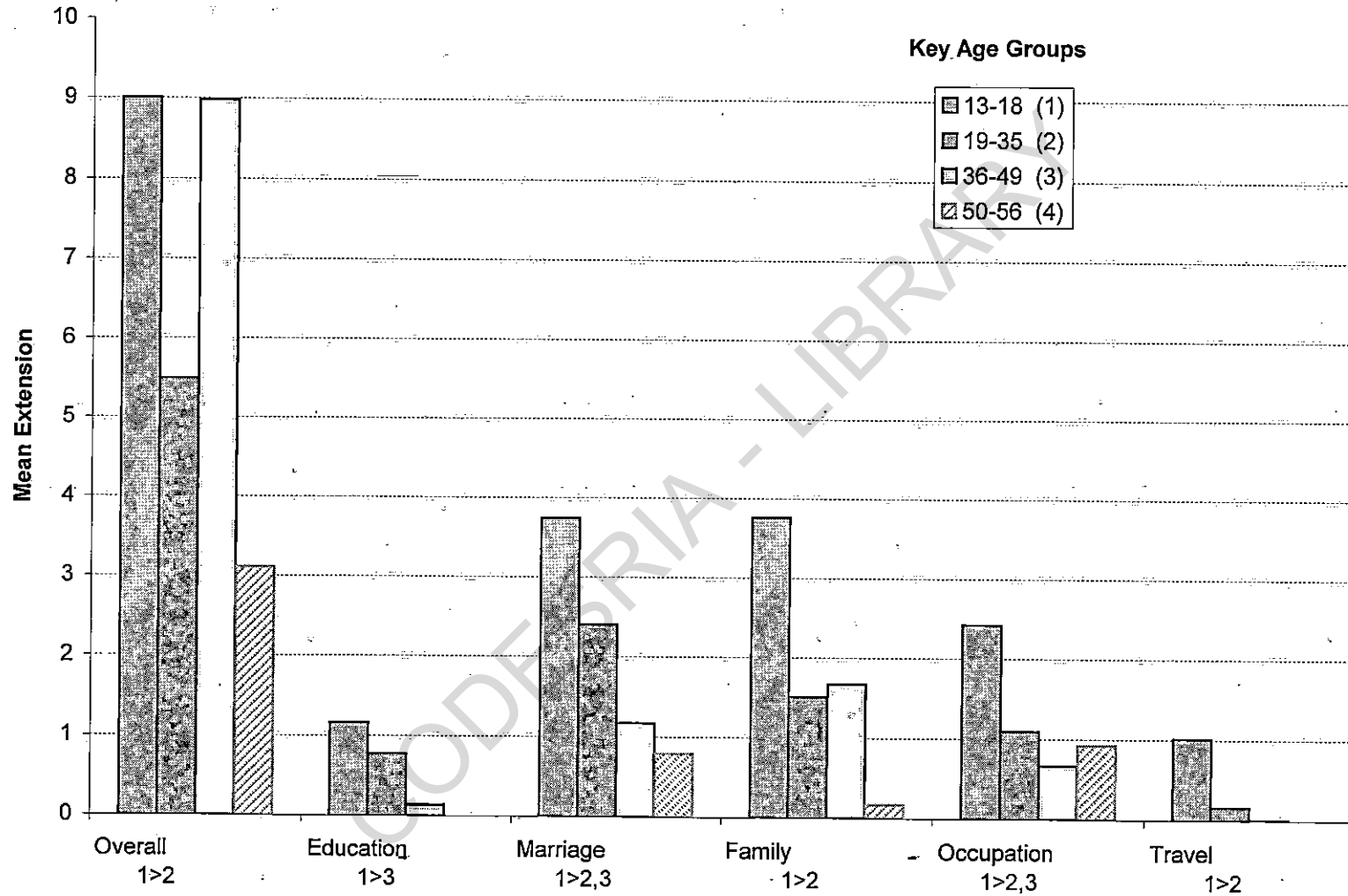


in Figure 4. In comparison to the results on the temporal extension of hopes, fewer age differences were evident here. Only five of the fear domain-specific extensions showed such statistically significant differences. In all of these there were linear decreases in the mean extension of the different groups with advance in age.

There was an age effect on the overall fear extension scores, $F(3,724) = 5.69, P < .0001$. Pairwise comparison of means revealed that adolescents extended their overall fears farther into the future than young adults did. When domain-specific extension scores were analyzed, age effects were found for education-, marriage-, family-, occupation-, and travel-related fear extensions ($F[3,724] = 6.02, 4.82, 3.85, 6.20$ and $5.16, P < .0005, .002, .01, .0004$ and $.001$, respectively). Pairwise comparisons of the means showed that the adolescents consistently extended their fears in these domains farther into the future than the other age groups. Thus, as they did their hopes, adolescents projected their fears an average of 9 years into the future. Both sets of results suggest that adolescents view the future as an infinite unlimited space in which they can make mistakes and still have enough time to make up for those mistakes.

In summary, these analyses on temporal extension scores provide evidence in support of our contentions with regards to the relation of this dimension with age. It was consistently demonstrated that older generations had a shorter future time span than younger persons. We found that adolescents and young adults significantly projected their goals into the more distant future.

Fig.4: Extension of overall & domain specific Fears by Age with significant differences between groups set at .05 confidence level



This is especially true of the adolescents whose average extensions were 11 years and 9 years, respectively for hopes and fears. Furthermore, as Figures 3 and 4 shows, there were linear decreases in the temporal extensions of the significant majority of life domains with advance in age. There was also evidence that increases or decreases in temporal extension may depend on the life domains. For example, rather than a decrease, the domain-specific temporal extension of hopes related to children's lives increased with advance in age.

4.1.4a Control of Hope by Age

The MANOVA indicated no statistical significant effect of age on overall perceived personal control of hopes. However, age effects were revealed for hopes related to children's lives, education, marriage, occupation and social services (See Appendices C1 to C16). Pearson's product moment correlation revealed that the older the respondents the less personal control they believed they could exercise over the occurrence of their hopes, $r(734) = 0.10, P < .01$. Similar results were obtained when the overall perceived personal control of hope scores were subjected to a one-way analysis of variance. This showed that there was an age effect on the perceived personal control scores, $F(3, 724) = 3.32, P < .01$. Pairwise comparisons of the means of the 4 age groups revealed that adolescents expected to have more personal control over their hopes than young adults. These results are illustrated in Figure 5. There were evident age differences in eight of the domain-specific perceived personal control of hope scores. The results of analysis of variance and pairwise comparisons indicates that

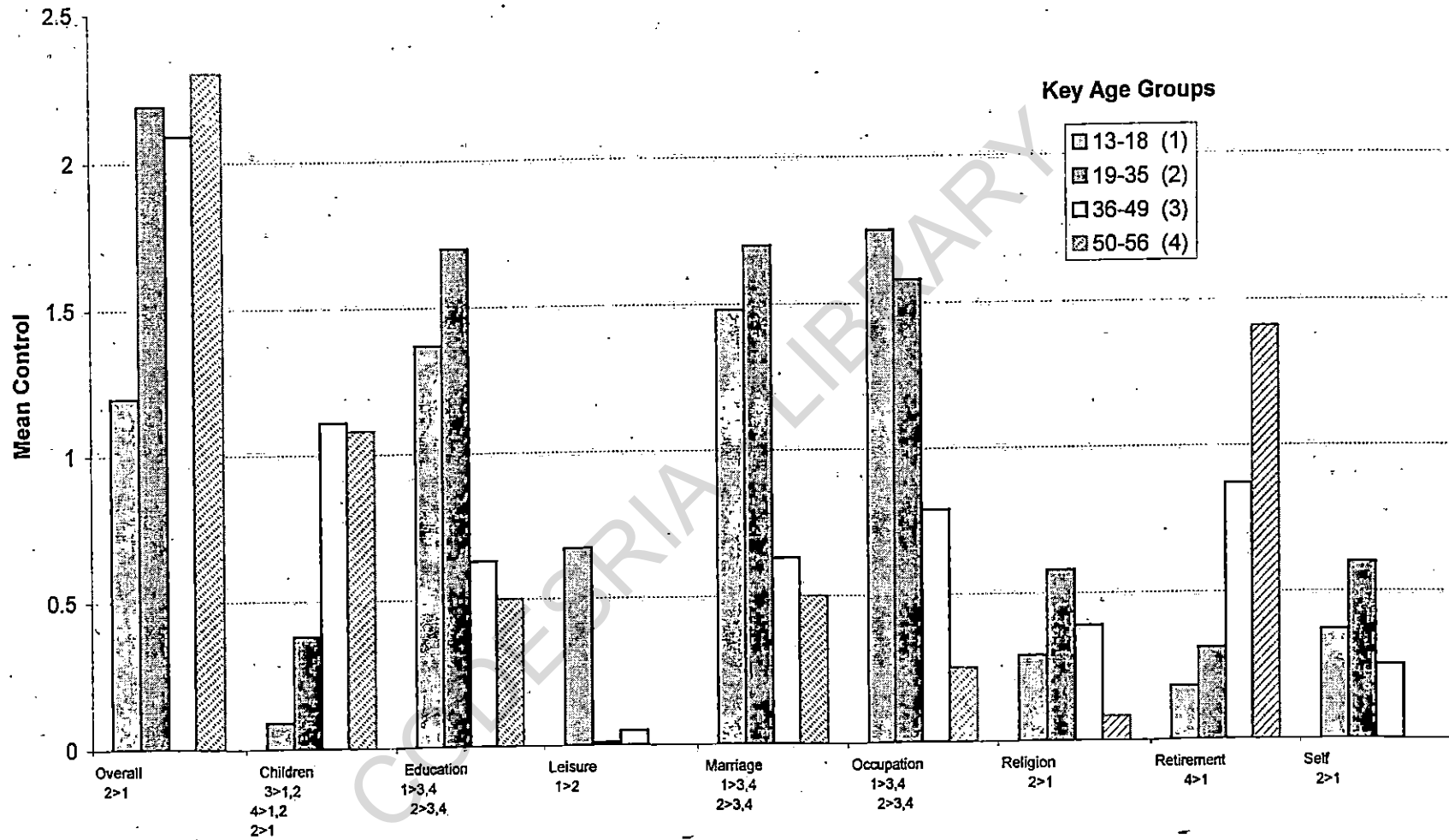
adolescents anticipated more personal control over the occurrences of their religion- and self-related hopes than young adults did ($F(3,724) = 4.30$ and 4.73 , $P < .005$ and $.002$, respectively). The adolescents also felt they could exercise more personal control over the occurrence of their retirement-related hopes than the late adulthood respondents did, $F(3, 724) = 3.45$, $P < .01$. Both adolescents and young adults held more personal control beliefs about the occurrence of their hopes related to the future of their children than the middle aged and late adulthood respondents, $F(3, 724) = 30.30$, $P < .00005$. Adolescents also felt more able to control the happening of these hopes than the young adults. Thus, the amount of perceived personal control anticipated over the occurrence of hopes related to children's lives tended to decrease progressively with advance in age.

The results also indicated that the middle-aged and the late adulthood respondents expected to be able to exert more personal control over their education-, marriage-, and occupation-related hopes than both adolescents and young adults felt they could ($F(3,724) = 18.86$, 18.86 and 13.53 , respectively; $P < .00005$). In summary, these results suggest that the younger age groups expected more personal control over the occurrences of those hopes that are far away (that is, goals not the life tasks of their or the next generation) in the future. On the other hand, the older respondents were more confident of influencing the course of those hopes that are ongoing.

4.1.4b Control of Fear by Age

The MANOVA showed no significant effect of age on overall perceived personal control of fears. However, age effects were indicated for

Fig.5: Control of overall & domain specific Hopes by Age with significant differences between groups set at .05 confidence level

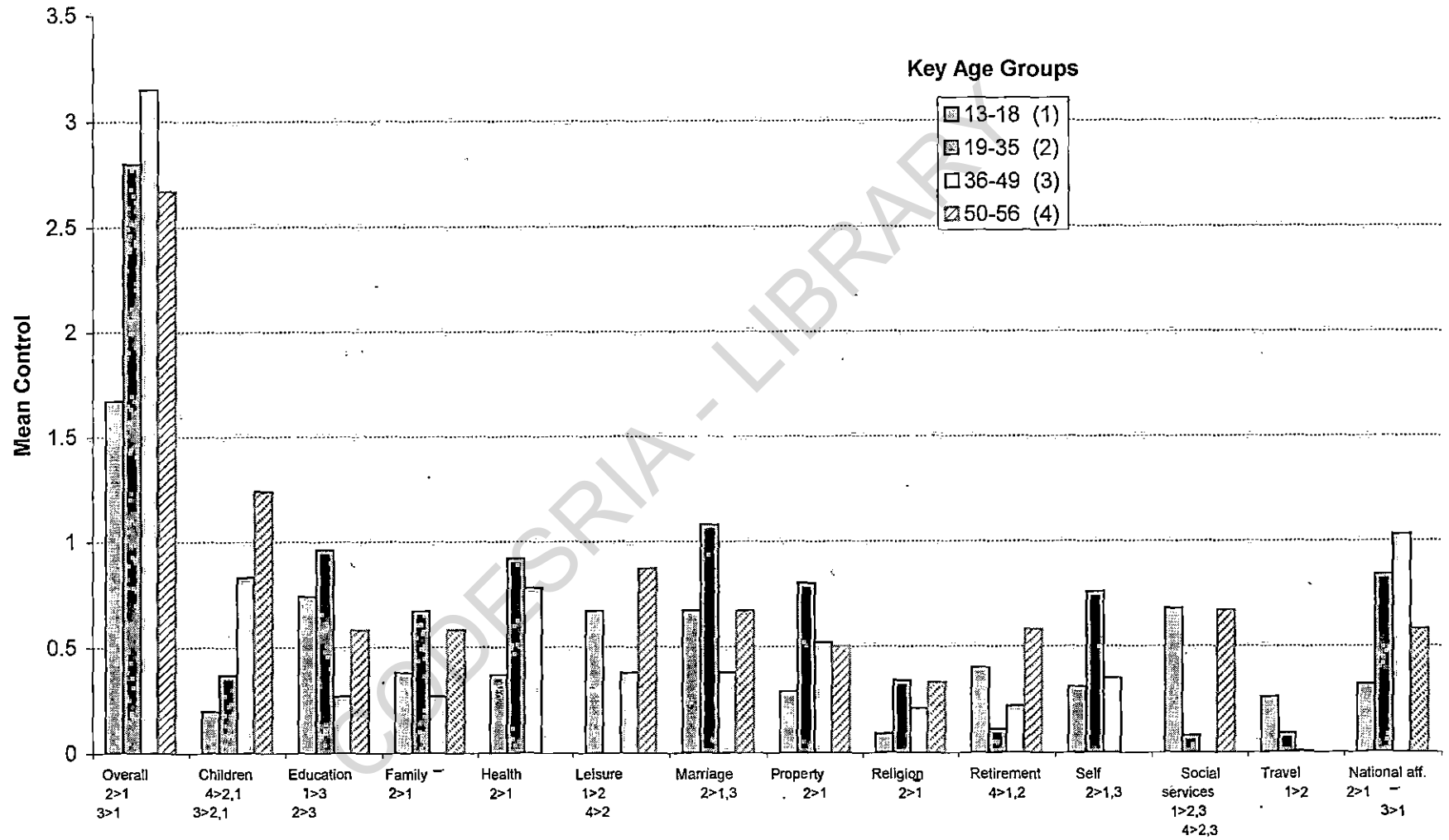


fears related education and marriage (See Appendices C17 to C32). Results obtained here were analogous to those reported for the control of hope. Product moment correlation showed that the older the respondents the less personal control they expected over the prevention of their fears $r(734) = 0.20, P < .0005$. Analysis of variance indicated an effect on the perceived personal control of fears $F(3,724) = 11.44, P < .00005$. Pairwise comparisons of the means of the four age groups revealed that adolescents anticipated more personal control over their fears than young adults and the middle-aged did. These results are illustrated in Figure 6.

Analysis of variance indicated evident age effect on 13 of the domain-specific perceived personal control of fear. Pairwise comparisons of the means of the groups revealed that adolescents believed they could exercise more personal control over the prevention of their family-, health-, marriage-, property-, religion-, and self-related fears than the young adults anticipated ($F(3,724) = 3.80, 8.89, 7.44, 8.49, 4.17$ and 9.21 , respectively; $P < .01, .00005, .0001, .00005, .006$ and $.00005$, respectively). Similarly, adolescents held more personal control beliefs about influencing the prevention of their fears for the nation than young adults and the middle-aged did.

The pairwise comparisons also showed that both adolescents and young adults anticipated more personal control of their fears related to their children's future than the older generations (middle-age and late adulthood) expected, $F(3,724) = 8.989, P < .00005$. Similarly, members of the younger age groups believed they could exert more personal control over the prevention of their retirement-related fears than the late adulthood persons

Fig.6: Control of overall & domain specific Fears by Age with significant differences between groups set at .05 confidence level



$F(3,724) = 4.78, P < .002$. Young adults held the more personal control beliefs about the prevention of their leisure- and travel-related fears than adolescents ($F[3,724] = 4.79$ and $3.74, P < .002$ and $.01$, respectively).

The young adults and the middle-aged were more confident about controlling the prevention of their social service-related fears than the adolescents and the elderly felt, $F(3,724) = 6.02, P < .0003$. The middle-aged held the more personal control beliefs about the prevention of their education-related fears than adolescents and young adults, $F(3,724) = 6.45, P < .0003$. Finally, the middle-aged believed they could exercise more personal control over the prevention of their marriage- and self-related fears than the young adults. In brief, it appears that, like their personal control beliefs about their hopes, the younger age groups were confident of exerting strong personal influence on the prevention of their fears. However, the fear domains they held these beliefs about are those, like the hopes, that are still far away in the future. On the other hand, the older respondents believed they could prevent the occurrence of those fears related to domains that are either ongoing or were of a past generation.

In summary, it would seem that our respondents have some illusions about their ability to control their destiny. This is especially true of the younger age groups. The results on the perceived personal control of both hopes and fears suggests that the younger age groups, and especially the adolescents, significantly perceived their future as personally controllable than the older age groups. In fact, the elderly, showed no indication about their ability to control their fears. These findings supports our prediction in

expected, $F(3,724) = 4.78, P < .002$. Young adults held the more personal control beliefs about the prevention of their leisure- and travel-related fears than adolescents ($F[3,724] = 4.79$ and $3.74, P < .002$ and $.01$, respectively).

The young adults and the middle-aged were more confident about controlling the prevention of their social service-related fears than the adolescents and the late adulthood group felt, $F(3,724) = 6.02, P < .0003$. The middle-aged held the more personal control beliefs about the prevention of their education-related fears than adolescents and young adults, $F(3,724) = 6.45, P < .0003$. Finally, the middle-aged believed they could exercise more personal control over the prevention of their marriage- and self-related fears than the young adults. In brief, it appears that, like their personal control beliefs about their hopes, the younger age groups were confident of exerting strong personal influence on the prevention of their fears. However, the fear domains they held these beliefs about are those, like the hopes, that are still far away in the future. On the other hand, the older respondents believed they could prevent the occurrence of those fears related to domains that are either ongoing or were of a past generation.

In summary, it would seem that our respondents have some illusions about their ability to control their destiny. This is especially true of the younger age groups. The results on the perceived personal control of both hopes and fears suggests that the younger age groups, and especially the adolescents, significantly perceived their future as personally controllable than the older age groups. In fact, the late adulthood group, showed no

indication about their ability to control their fears. These findings supports our prediction in respect of the direction of relationships between age and this dimension of future orientation. Specifically, we found that the older age groups perceived their future as significantly less controllable than the younger age groups.

4.1.5 Affective Tone by Age

Interest in this dimension centered mainly on people's emotional evaluation of their future. Therefore, no domain-specific affective tone scores were derived. Rather, we calculated a global affective tone score by dividing overall hopes mentioned by the total number of goal statements generated by the respondent. The result of this arithmetic was multiplied by ten. When these global affective tone scores were correlated with age, the result indicated that the younger the respondents the more positive their outlook on the future, $r(734) = -0.075, P < .04$. The result of the one-way analysis of variance performed on affective tone scores by age also indicated an age effect, $F(3, 711) = 2.57, P < .05$. Pairwise comparisons of the means of the 4 age groups revealed that adolescents ($M = 7.47$) had a more positive outlook on the future than young adults ($M = 7.06$). The mean scores of the older age groups (middle-age and late adulthood) were 7.14 and 6.84, respectively. These results suggest that our expectation that older persons will evaluate the future more positively than younger age groups was based on a faulty rationale. However, the results agree with those found in respects of perceived personal control of the future. It appears that since young people attribute the occurrence of their future-oriented goals to personal efforts, they see that future in more positive terms.

4.2 GENDER

4.2.1a Content of Hope by Gender

The MANOVA indicated that there were no statistical significant effect of gender on the overall and the domain-specific number of hopes mentioned (See Appendices C1 to C16). However, the one-way ANOVA revealed evident gender differences in six of the 15 domain-specific comparisons. These results are presented in Table 12. Only those life domains in which statistical significance differences occurred are presented. The results show that women mentioned hopes related to education and marriage more frequently than men. In contrast, men generated property-, religion-, retirement-, and national affairs related hopes significantly more often than women.

In order to ensure that the gender differences found were not due to differences in educational status, analysis of covariance was carried out for those life domains in which both gender and level of education showed statistical significant effect. After the effect of educational status as a covariate was controlled, the results revealed gender differences analogous to those reported above for hopes related to education $F(1,715) = 6.18$, $P < .01$; property $F(1,715) = 11.98$, $P < .0006$; religion $F(1,715) = 12.82$, $P < .0004$; and retirement $F(1,715) = 3.99$, $P < .05$. However, gender difference in the frequency of mention of social service-related hopes failed to reach conventional levels of statistical significance.

Table 12

Mean Content, Extension and Control of Hope by Gender

Life Domain	Gender						t-test		
	Men (n = 377)			Women (n = 348)			Comparisons		
	Content (1)	Extension (2)	Control (3)	Content (4)	Extension (5)	Control (6)	1 vs 4	2 vs 5	3 vs 6
Education	1.34 (1.33)	2.71 (3.57)	1.23 (1.12)	1.59 (1.37)	2.55 (2.21)	1.50 (1.19)	-2.49 ^c	0.74	-3.06 ^c
Marriage	1.19 (0.98)	6.39 (6.15)	1.42 (1.20)	1.58 (1.10)	7.08 (5.98)	1.61 (1.19)	-5.08 ^c	-1.54	-2.15 ^b
Property	1.49 (1.26)	7.02 (6.61)	1.54 (1.29)	1.17 (1.19)	6.00 (6.52)	1.20 (1.27)	3.46 ^d	2.08 ^a	3.56 ^e
Religion	0.33 (0.68)	2.24 (1.18)	0.56 (1.18)	0.18 (0.43)	0.99 (5.02)	0.35 (0.92)	3.58 ^e	2.45 ^c	2.70 ^c
Retirement	0.19 (0.46)	4.84 (12.85)	0.32 (0.85)	0.12 (0.41)	3.20 (10.94)	0.24 (0.81)	2.01 ^a	1.84 ^a	1.25
Social Service	0.25 (0.54)	2.39 (6.26)	0.41 (0.97)	0.20 (0.47)	1.43 (4.38)	0.30 (0.82)	1.21	2.38 ^c	1.64
National Affairs	0.05 (0.28)	0.39 (2.91)	0.11 (0.55)	0.01 (0.13)	0.12 (1.28)	0.05 (0.43)	2.05 ^a	1.60	1.41

Note: Standard deviations appear in parentheses. Comparisons with superscripts are significant at ^aP<.05; ^bP<.02; ^cP<.01; ^dP<.001; ^eP<.0005. All t-tests are two-tailed.

4.2.1b Content of Fear by Gender

The MANOVA indicated no statistical significant effect of gender on the overall and domain-specific number of fears mentioned. Gender effect showed up only in fears related to children's lives $F(1,668) = 6.49$; $P < .01$ and property $F(1,668) = 4.36$; $P < .03$ (See Appendices C17 to C32). There were evident gender differences in six of the domain-specific content of fears when t-test comparison was conducted (see Table 13).

Table 13

Mean Content, Extension and Control of Fear by Gender

Life Domain	Gender						t-test Comparisons		
	Men (n = 377)			Women (n = 348)			1 vs 4	2 vs 5	3 vs 6
	Content (1)	Extension (2)	Control (3)	Content (4)	Extension (5)	Control (6)			
Education	1.34 (1.33)	0.70 (1.86)	0.72 (1.33)	1.59 (1.37)	0.98 (1.99)	0.91 (1.42)	-2.49 ^c	-1.96 ^a	-1.79
Health	0.50 (0.78)	4.50 (13.39)	0.93 (1.56)	0.26 (0.62)	2.50 (10.38)	0.50 (1.24)	4.61 ^e	2.79 ^d	4.10 ^e
Interpersonal	0.12 (0.37)	1.08 (6.05)	0.27 (0.89)	0.06 (0.26)	0.05 (0.60)	0.11 (0.59)	2.36 ^c	3.17 ^c	2.74 ^c
Marriage	0.51 (0.87)	2.83 (6.39)	0.84 (1.38)	0.67 (1.08)	2.60 (5.25)	0.93 (1.47)	-2.17 ^a	0.53	-0.86
Property	0.33 (0.66)	2.51 (6.77)	0.72 (1.38)	0.26 (0.59)	1.35 (4.43)	0.46 (1.14)	1.41	2.69 ^c	2.75 ^c
Religion	0.17 (0.43)	0.60 (4.36)	0.31 (0.97)	0.14 (0.38)	0.53 (4.25)	0.18 (0.74)	0.96	0.24	1.95 ^a
Retirement	0.09 (0.46)	1.31 (6.99)	0.13 (0.63)	0.03 (0.18)	0.23 (2.32)	0.07 (0.49)	2.34 ^b	2.75 ^c	1.59
National Affairs	0.45 (0.90)	1.43 (4.87)	0.88 (1.57)	0.26 (0.78)	0.52 (3.82)	0.47 (1.18)	2.98 ^d	1.99 ^a	3.96 ^e
Overall	3.49 (3.210)	8.11 (11.84)	2.66 (2.83)	3.19 (3.06)	5.49 (8.43)	1.54 (2.09)	1.27	3.00 ^d	2.09 ^a

Note: Standard deviations appear in parentheses. Comparisons with superscripts are significant at ^aP < .05; ^bP < .02; ^cP < .01; ^dP < .001; ^eP < .0005. All t-tests are two-tailed.

Women expressed fears related to the future of their education and marriage significantly more often than men. In contrast, male respondents expressed fears related to interpersonal relationships, health, retirement, and national affairs more frequently than the female respondents.

After the effect of educational status was controlled as a covariate, a pattern of gender differences congruent with those presented above were

found for education- $F(1,715) = 32.48, P < .00005$, and national affairs $F(1,715) = 12.13, P < .00005$ related fears. However, gender differences in the frequency of mention of fears related to retirement failed to reach conventional levels of statistical significance.

In summary, the above results indicate gender differences in people's future-oriented personal goals. Nonetheless, they do not fit the sub-hypotheses that women would mention goals-related to family and their children's lives more often and men, work- and career-related goals more often, very neatly. It is noted, however, that women did mention hopes and fears related to marriage and own family more frequently than men. On the other hand, men mentioned property-related hopes, and retirement-related hopes and fears more often than women. Finally, education (which might be regarded a career track goal) was mentioned more frequently by women than men.

4.2.2a Extension of Hopes by Gender

The MANOVA revealed no evident gender effect on the overall temporal extension of hopes. It is worthy of note however that gender effect on the dimension approached, but did not reach conventional levels of significance, $F(1,668) = 2.75, P < .09$. The result obtained when men and women were compared by means of t-test according to their overall temporal extension were similar (For men, $M = 8.94, SD = 5.66$; for women, $M = 8.21, SD = 5.88; t = 1.68, P > .09$). These indicate that the mean overall extension score of men were slightly greater than that of women.

The MANOVA also indicated no statistical significant effect of gender on all the domain-specific temporal extensions of hope (see Appendices C1 to C16). However, there were evident statistical significant gender differences in four of the domain-specific extension of hope scores when the scores were subjected to a one-way ANOVA (See Table 12). Male respondents expected their property-, religion-, retirement-, and social service-related hopes to actualize later in the future than female respondents did.

After the effect of educational status as a covariate was controlled, a pattern of gender differences similar to those reported above was evident for property - $F(1, 715) = 17.76, P < .00005$ and social service - $F(1, 715) = 5.74, P < .01$ related hopes. However, gender difference in the extension of retirement-related hopes failed to reach conventional levels of statistical significance.

4.2.2b Extension of Fears by Gender

The MANOVA indicated a significant effect of gender on the overall temporal extension of fears $F(1, 668) = 6.38, P < .01$. Furthermore, the effect of gender was evident in the extension of property related fears $F(1, 668) = 13.94, P < .00005$ (see Appendices C17 to C32). The t-test showed a result congruent with the above. Men ($M = 8.11, SD = 11.84$) extended their fears farther into the future significantly more than women ($M = 5.49, SD = 8.43; t = 3.00, P < .003$). There were also evident statistical significant gender differences in 6 of the domain-specific extension of fears. These results are presented in Table 13. It shows that male respondents

significantly extended their health-, interpersonal-, property-, retirement-, and national affairs-related fears farther into the future than women. In contrast, only education-related fears were extended farther into the future significantly more by the women.

After the effect of educational status as a covariate was controlled, the results indicated a similar gender difference for education-related fears, $F(1,715) = 15.08, P < .0005$. However, gender difference in overall temporal extension failed to reach conventional levels of statistical significance.

In summary, the results reported above conclusively indicate a gender difference in people's future time span. While the male respondents extended their overall fear, four domain-specific extension of hopes and five domain-specific extension of fears farther into the future significantly more than female respondents, women did the same in only one domain-specific extension of fear. Thus, the evidence appear to be in line with our contention that women will have a short future time span.

4.2.3a Control of Hopes by Gender

The MANOVA revealed a statistical significant effect of gender on the overall perceived personal control of hopes $F(1,668) = 3.77, P < .05$. There were however no gender effects on the domain-specific extension of fears. Nonetheless, t-test comparisons showed that there were evident statistical significant gender differences in four of the domain-specific control of hope scores (see Table 12). Male respondents anticipated more personal control

over the occurrence of their education- and marriage-related hopes. In contrast, women felt they could exercise personal control over the materialization of hopes related to property and religion.

After controlling for the effect of educational status as a covariate, statistical significant gender differences analogous to those reported above were found for marriage- $F(1,715) = 15.90, P < .00005$; property- $F(1,715) = 10.38, P < .001$; and religion- $F(1,715) = 10.62, P < .00005$ related perceived personal control of hope.

4.2.3b Control of Fear by Gender

The MANOVA revealed no evident gender effect on the overall and domain-specific extension of fears (see Appendices C17 to C32). However, product moment correlation indicated a relationship between gender and overall perceived personal control of fear scores, $r(723) = 0.086, P < .02$. The t-test also showed that Women ($M = 1.54, SD = 2.09$) expected to be able to exercise more personal control over their fears than men ($M = 2.66, SD = 2.83; t = 2.69, P < .03$). It further revealed evident statistical significance gender differences in five of the domain-specific perceived personal control of fear scores. These results are presented in Table 13. Women were shown to hold more personal control beliefs about the prevention of their health-, interpersonal-, property-, religion- and national affairs-related fears than men.

After the effect of educational status as a covariate was controlled, a pattern of gender differences congruent with those reported above were

found for fears related to health $F(1,715) = 16.81, P < .00005$. However, gender difference in overall perceived control of fear and those related to property failed to reach conventional levels of statistical significance.

In summary, the results reported above suggest a gender difference in people's perceived control of their future-oriented personal goals. It was demonstrated here that women anticipate personal control over more of their future-oriented goals than men. Specifically, while male respondents expected more personal control over the occurrence of their hopes related to only two life domains, women anticipated more personal control over the occurrence of two domain-specific hopes and five fear-related life domains. These results contradict our prediction that women will be less personal in their attributional evaluation of the future than men.

4.2.4 Affective Tone by Gender

Product moment correlation of affective tone scores with gender indicated a tendency for female respondents to be more positive in their emotional evaluation of the future than males, $r(723) = 0.049, P > .13$. When the mean affective tone scores of men and women were compared by means of the t-test, it was shown that female respondents ($M = 7.35, SD = 1.89$) had a more positive outlook on the future than males ($M = 7.01, SD = 1.92; t(723) = 2.61, P < .01$). This finding contradicts our contention that women's affective evaluation of future will be more negative than those of men.

4.3 EDUCATIONAL STATUS

4.3.1a Content of Hopes by Educational Status

MANOVA indicated an educational status effect on the overall number of hopes mentioned $F(1,668) = 4.39, P < .04$. Furthermore, the effect of educational status was also evident for the frequency of mention of hopes related to children's lives $F(1,668) = 7.03, P < .01$ (see Appendices C1 to C16). The result of the t-test comparisons of the means of the two groups revealed that respondents with secondary education ($M = 7.25, SD = 2.94$) generated more hopes than those with tertiary education ($M = 6.61, SD = 3.11; t[732] = 2.76, P < .005$). There were also evident statistical significant educational status differences in nine of the domain-specific content of hope scores. These results are presented in Table 14. Respondents with tertiary education expressed hopes related to children lives, religion, retirement, self and social service significantly more often than did those with secondary education. In contrast, respondents with secondary education generated education-, occupation-, property-, and travel-related hopes more frequently than did those with tertiary education. To ensure that the educational status differences found were not due to this relationship between age and level of education, analysis of covariance were carried out for those domain-specific hope scores in which both age and educational status showed statistically significant effects. After the effect of age as a covariate was controlled, the results revealed educational status differences analogous to those already reported for hopes related to children's lives $F(1,724) = 58.41, P < .00005$; education $F(1,724) = 50.64,$

$P < .00005$, and self $F(1,724) = 8.35$, $P < .004$). However, educational status differences in occupation-, property-, religion-, retirement-, and travel-related hopes failed to reach conventional levels of statistical significance.

4.3.1b Content of Fear by Educational Status

MANOVA revealed no evident effect of educational status on the overall number of fears mentioned. However, there were statistical significant effect of this variable on the frequency of mention of retirement- and social service- related fears (see Appendices C17 to C32). A t-test comparison of both groups revealed evident statistical differences in the frequency of mention of six of the domain-specific fears (See Table 15). Respondents with secondary education mentioned education- and travel-related fears significantly more often than those who had tertiary education. In contrast, members of the latter group generated fears related to retirement, self, social service and national affairs more frequently than those with secondary education.

After the effect of age as a covariate was controlled, a pattern of educational status differences congruent with those reported above for travel- $F(1,724)$, 22.14 , $P < .00005$; self- $F(1,724) = 9.57$, $P < .002$; social service- $F(1,724) = 4.53$, $P < .03$, and national affairs-related fears $F(1,724) = 9.14$, $P < .002$ were obtained. However, fears related to education and retirement failed to reach conventional levels of statistical significance.

In summary, the results reported above suggest educational status

Table 14

Mean Content, Extension and Control of Hope by Educational Status

Life Domain	Educational Status						t-test		
	Secondary (n = 274)			Tertiary (n = 465)			comparisons		
	Content (1)	Extension (2)	Control (3)	Content (4)	Extension (5)	Control (6)	1 vs 4	2 vs 5	3 vs 6
Children's Lives	0.09 (0.31)	1.02 (4.22)	0.13 (0.52)	0.29 (0.58)	3.00 (7.38)	0.49 (0.98)	-5.32 ^a	-4.07 ^a	-5.64 ^a
Education	2.00 (1.70)	2.56 (3.73)	1.26 (1.14)	1.23 (0.97)	2.69 (2.63)	1.41 (1.18)	8.92 ^a	-0.53	-1.68
Family	0.14 (0.41)	1.75 (4.93)	0.26 (0.75)	0.13 (0.38)	0.95 (4.58)	0.24 (0.74)	0.35	2.24 ^a	0.36
Leisure	0.00 (0.06)	0.25 (2.15)	0.06 (0.40)	0.01 (0.08)	0.00 (0.05)	0.02 (0.15)	-0.51	2.10 ^a	2.14 ^a
Marriage	1.32 (1.01)	0.20 (7.21)	1.34 (1.19)	1.39 (1.09)	5.17 (4.69)	1.61 (1.21)	3.23 ^d	8.62 ^a	0.79
Occupation	1.10 (0.73)	7.25 (5.45)	11.59 (1.29)	0.90 (0.85)	4.05 (4.49)	1.51 (1.32)	3.23 ^d	8.62 ^a	0.79
Property	1.50 (1.24)	8.63 (7.50)	1.26 (1.25)	1.23 (1.22)	5.29 (5.79)	1.45 (1.13)	2.79 ^d	6.85 ^a	-1.99 ^a
Religion	0.15 (0.46)	1.13 (7.20)	0.31 (0.96)	0.32 (0.63)	1.91 (6.73)	0.54 (1.12)	-3.81 ^d	-1.47	-2.81 ^d
Retirement	0.07 (0.30)	2.54 (10.89)	0.15 (0.68)	0.20 (0.49)	4.88 (12.43)	0.36 (0.89)	-4.00 ^a	-2.59 ^a	-3.27 ^d
Self	0.20 (0.49)	1.81 (7.54)	0.37 (0.92)	0.38 (0.8)	1.77 (4.83)	0.56 (1.07)	-3.30 ^d	0.08	-2.35 ^b
Social Service	0.17 (0.39)	1.62 (4.70)	0.27 (0.78)	0.25 (0.56)	2.08 (5.82)	0.42 (0.98)	-2.10 ^a	-1.09	-2.19 ^a
Travel	0.39 (0.62)	4.09 (7.15)	0.64 (1.14)	0.22 (0.46)	1.38 (3.91)	0.49 (1.07)	4.38 ^a	6.62 ^a	1.86
Overall	7.25 (2.94)	10.53 (6.210)	1.94 (1.13)	6.61 (3.11)	7.42 (5.17)	2.20 (0.78)	2.76 ^d	7.20 ^a	-3.69 ^a

Note: Standard deviations appear in parentheses. Comparisons with superscripts are significant at ^aP < .05; ^bP < .02; ^cP < .01; ^dP < .001; ^eP < .005. All t-tests are two-tailed.

differences in people's future-oriented personal goals. It was shown that people with tertiary education mentioned more goals than those with secondary education (goals related to 6 vs 4 domain specific goals

respectively, $X^2(1,732) = 13.47, P < .005$). It was also demonstrated that the goals of both groups differ. While the interests of people with secondary education centered around education, marriage and occupation, those of people with tertiary education concerned religion, self, social service and retirement. Thus, the results provide some evidence in support of our contention that the higher the educational the more goals people mention.

4.3.2a Extension of Hope by Educational Status

The MANOVA indicated no statistical significant effect of educational status on the temporal extension of hope. However, the effect approached conventional levels of statistical significance ($F(1,668) = 2.11, P < .10$ (See Appendices C1 to C16)). The t-Test analysis revealed that respondents with secondary education ($M = 10.53, SD = 6.21$) expected their hopes to be realised later in the future than those with tertiary education ($M = 7.42, SD = 5.17; t = 7.20, P < .0005$). Furthermore, eight of the domain-specific comparisons of both groups' extension scores were found to be statistically significant. These results are presented in Table 14. Members of the secondary education group significantly extended their family-, leisure-, marriage-, occupation-, property-, and travel-related hopes farther into the future than those of the tertiary education group. In contrast, members of the latter group expected their hopes related to children's lives and retirement to actualize later in the future than those of the secondary education group.

Table 15

Mean Content, Extension, and Control of Fear by Educational Status

Life Domains	Educational Status						t-test Comparisons		
	Secondary (n = 274)			Tertiary (n = 460)			1 vs 4	2 vs 5	3 vs 6
	Content (1)	Extension (2)	Control (3)	Content (4)	Extension (5)	Control (6)			
Children	0.12 (0.47)	0.77 (3.28)	0.23 (0.86)	0.17 (0.45)	0.95 (4.17)	0.46 (1.56)	-1.36	-0.59	-2.82 ^c
Education	0.77 (1.11)	1.05 (2.13)	0.622 (1.12)	0.56 (0.77)	0.69 (1.76)	0.91 (1.49)	4.66 ^c	2.44 ^b	-2.50 ^c
Family	0.28 (0.54)	3.67 (11.46)	0.38 (1.01)	0.22 (0.47)	1.37 (6.18)	0.64 (1.37)	1.45	3.53 ^a	-2.64 ^c
Health	0.37 (0.76)	3.80 (14.02)	0.37 (1.04)	0.38 (0.69)	3.56 (10.68)	0.92 (1.58)	-0.31	0.26	-5.14 ^a
Leisure	0.03 (0.28)	0.07 (0.68)	0.07 (0.46)	0.00 (0.07)	0.00 (0.05)	0.01 (0.14)	1.57	2.10 ^a	2.78 ^c
Marriage	0.63 (1.07)	3.93 (7.58)	0.68 (1.28)	0.55 (0.92)	1.95 (4.33)	0.99 (1.48)	1.02	4.50 ^a	-2.89 ^a
Occupation	0.28 (0.57)	2.56 (5.34)	0.49 (1.20)	0.23 (0.49)	1.02 (3.22)	0.56 (1.26)	1.55	3.87 ^a	-0.74
Property	0.30 (0.69)	2.17 (6.50)	0.39 (1.05)	0.29 (0.58)	1.78 (5.27)	0.72 (1.38)	0.23	0.89	-3.47 ^a
Religion	0.16 (0.38)	0.81 (5.86)	0.08 (0.47)	0.15 (0.42)	0.41 (2.95)	0.34 (1.02)	0.08	1.24	-3.92 ^a
Retirement	0.02 (0.13)	0.51 (5.86)	0.05 (0.40)	0.08 (0.44)	0.95 (5.15)	0.13 (0.64)	-2.38 ^b	-1.11	-1.87
Self	0.22 (0.56)	1.54 (6.91)	0.30 (0.86)	0.42 (0.86)	1.34 (4.53)	0.73 (1.35)	-3.36 ^d	0.47	-4.77 ^a
Social Service	0.01 (0.12)	0.44 (3.91)	0.06 (0.45)	0.06 (0.29)	0.47 (3.35)	0.09 (0.53)	-2.43 ^b	-0.13	-0.81
Travel	0.12 (0.36)	0.98 (4.42)	0.24 (0.86)	0.03 (0.18)	0.10 (1.01)	0.08 (0.56)	4.25 ^a	4.09 ^a	3.07 ^c
National Affairs	0.18 (0.55)	0.96 (4.39)	0.31 (1.00)	0.46 (0.96)	1.19 (4.37)	0.89 (1.56)	-4.61 ^a	-0.70	5.50 ^a
Overall	3.33 (3.29)	9.13 (13.17)	1.72 (3.40)	3.30 (3.05)	5.60 (8.36)	2.87 (1.26)	0.11	3.93 ^a	-5.85 ^a

Note: Standard deviations appear in parentheses. Comparisons with superscripts are significant at ^aP < .05; ^bP < .02; ^cP < .01; ^dP < .001; ^eP < .005. All t-tests are two-tailed.

After controlling for the effect of age as a covariate; a pattern of educational status differences similar to those reported above were evident for extension of hopes related to family $F(1,724) = 11.35, P < .00005$; property $F(1,724) = 11.63, P < .00005$, travel $F(1,724) = 23.89, P < .00005$; children's lives $F(1,724) = 9.14, P < .002$; and retirement $F(1,724) = 6.36, P < .01$. However, educational status differences in the extension of hopes related to leisure, marriage, and occupation failed to reach conventional levels of statistical significance.

4.3.2b Extension of Fear by Educational Status

The MANOVA revealed no evident educational status effect on the overall and domain-specific extension of fears, except in the case of social services $F(1,668) = 4.47, P < .03$ (See Appendices C17 to 32). t-Test revealed that members of the secondary education group ($M = 9.13, SD = 13.17$) extended their fears farther into the future than those of the tertiary group ($M = 5.60, SD = 8.36; t[732] = 3.93, P < .0005$). Furthermore, 6 of the domain-specific comparisons of the means of both groups were found to be statistically significant. These results are presented in Table 15. Respondents with secondary education significantly extended their education-, family-, leisure-, marriage-, occupation-, and travel-related fears farther into the future than those with tertiary education.

After the effect of age as a covariate was controlled, a pattern of educational status differences congruent with those reported above was found for overall extension $F(1,724) = 16.63, P < .0001$; and the extension

of fears related to family $F(1,724) = 14.14, P < .0002$; leisure $F(1,724) = 4.93, P < .03$; marriage $F(1,724) = 27.17, P < .0005$; occupation $F(1,724) = 20.82, P < .0005$; and travel $F(1,724) = 19.33, P < .00005$. However, educational status difference in the extension of education-related fears failed to reach conventional levels of statistical significance.

The results of the analyses of the temporal extension of hopes and fears suggests that respondents with lower educational status had the longer future time span. Not only did respondents with secondary education have longer overall extension of hopes and fears, but they also extended their goals in more (six hope and six fear) life domains farther into the future than those with tertiary education. In contrast, the latter group significantly extended only two hope domains farther into the future than the less educated group. These findings contradict our contention that people with higher levels of education will have a more extended future orientation. In fact, the results indicate the direct opposite.

4.3.3a Control of Hopes by Educational Status

The MANOVA revealed no statistical significant effect of educational status on overall perceived personal control. Furthermore, such effect only showed in only three (children's lives, health, and social services) of the domain-specific control (See Appendices C1 to C16). However, product moment correlation indicated that the lower the level of education the more control respondents felt they could exercise over the occurrence of their hopes, $r(732) = 0.12, P < .003$. t-Test showed that respondents with

secondary education ($M = 1.94$, $SD = 1.13$) anticipated more personal control over the actualization of their hopes than those with tertiary education ($M = 2.20$, $SD = 0.78$; $t[732] = -3.69$, $P < .0005$). Furthermore, there were evident statistical significant educational status differences in eight of the domain-specific perceived personal control of hope scores (See Table 14). Members of the secondary education group believed they could personally influence the materialization of their hopes related to children's lives, marriage, property, religion, retirement, self and social service significantly more than those of the tertiary education group did. In contrast, members of the tertiary education group anticipated more personal control over the occurrence of their leisure-related hopes than those with secondary education expected.

After the effect of age as a covariate was controlled, the pattern of educational status differences was analogous to those already reported for marriage $F(1,724) = 10.47$, $P < .01$; self $(1,724) = 4.69$, $P < .03$; social service- $F(1,724) = 5.56$, $P < .02$; and overall perceived personal control of hope $F(1,724) = 9.54$, $P < .0001$. However, educational status differences in hopes related to children's lives, failed to reach conventional levels of statistical significance.

4.3.3b Control of Fear by Educational Status

The MANOVA revealed no evident educational status effect on the overall and domain-specific extension of fears, except for social services $F(1,668) = 11.15$, $P < .001$ and leisure $F(1,668) = 9.75$ $P < .002$ (See

Appendices C17 to C32). However, product moment correlation indicated that the lower the level of education the more personal control respondents believed they could exercise over the prevention of their fears, $r(732) = 0.22$, $P < .0005$. The t-test comparison showed that respondents with secondary education ($M = 1.72$, $SD = 3.40$) anticipated more personal control over the prevention of their fears than those with tertiary education expected ($M = 2.87$, $SD = 1.26$; $t[732] = -5.85$, $P < .0005$). Furthermore, 11 of the domain-specific educational status differences were found to be statistically significant (See Table 15). Members of the secondary education group believed they could exercise personal control over the prevention of their fears related to children's lives, education, family, health, marriage, property, religion, self, and national affairs significantly more than those of the tertiary education group anticipated. In contrast, members of the latter group expected more personal control over the prevention of their leisure- and travel-related fears more than those of the secondary education group did.

When the effects of age as a covariate was controlled, a pattern of educational status differences congruent with those reported above was found for education- $F(1,724) = 5.92$, $P < .004$; marriage- $F(1,724) = 5.19$, $P < .02$; and self- $F(1,724) = 17.63$, $P < .00005$. However, educational status differences in fears related to children's lives and national affairs failed to reach conventional levels of statistical significance.

The results reported above suggests that respondents with secondary education anticipated more personal control over their future-oriented goals.

While they believed they could exercise personal influence on the occurrence or prevention of their overall and several (seven hope and nine fear) domain-specific goals, members of the tertiary education group felt same about only two domain-specific goals. In short, the data of this study suggests a direction of relationship directly opposite the prediction. Rather than people with higher level of education anticipating more control over their future, the results suggest the opposite.

4.3.4 Affective Tone by Educational Status

There was a significant correlation between educational status and affective tone scores, $r(732) = -0.08, P < .02$. The t-Test revealed that members of the secondary education group ($M = 7.47$) had a more positive outlook on the future than those of the tertiary education group ($M = 7.03, t(732) = 3.01, P < .001$). However, when the effect of age as a covariate was controlled, this educational status difference failed to reach conventional levels of statistical significance. Nevertheless, the result contradicts the prediction that people with higher level of education are more positive in their outlook on the future.

4.4 PERSONAL DISPOSITION

The first step here was the composition of two personality groups based on respondents' scores of the Life Orientation Test (LOT). Scores on the LOT were dichotomized at the median. The median was calculated based on the score distribution of the whole sample and found to be a score of 30.

Respondents were regarded as optimists if their scores fell in the upper half (that is, a score above 30) of the distribution of scores and pessimists if their scores fell in the lower half (that is, a score equal to or below 30). This method, rather than the upper and lower extremes, was adopted because it enabled the retention of all cases. It is noted that groups so derived merely represents convenient groupings of persons who can be described simply according to their levels of dispositional optimism and not as an absolute typology. The verbal labels applied are only memory aids as respondents are categorized relative to particular others. There is, at present, no empirical justification for considering these groups as 'true' personality categories. Therefore, the verbal labels have relative rather than absolute meaning.

4.4.1a Content of Hope by Personal Disposition

The MANOVA indicated no statistical significant effect of personal disposition on the frequency of mention of overall and domain-specific hopes (See Appendices C1 to C16). However, the t-test showed statistical significant differences in the frequency of mention of three of the life domains of hope. This is just about the number that may be expected by chance. These results are presented in Table 16. The results of the comparisons showed that optimists mentioned marriage- and religion-related hopes significantly more often than pessimists. In contrast, pessimists generated property-related hopes more frequently than optimists did.

Table 16

Mean Content, Extension and Control of Hope by Personal Disposition

Life Domains	Personal Disposition						t-test		
	Optimists (n = 323)			Pessimists (n = 411)			Comparison		
	Content (1)	Extension (2)	Control (3)	Content (4)	Extension (5)	Control (6)	1 vs 4	2 vs 5	3 vs 6
Children's Lives	0.23 (0.53)	2.54 (6.87)	0.43 (0.94)	0.20 (0.49)	2.04 (6.11)	0.31 (0.79)	1.02	1.04	1.92 ^a
Education	1.43 (1.27)	2.81 (2.83)	1.54 (1.21)	1.47 (1.42)	2.51 (3.27)	1.21 (1.11)	-0.36	1.33	3.81 ^d
Marriage	1.53 (1.12)	6.65 (5.62)	1.65 (1.20)	1.24 (1.00)	6.76 (6.44)	1.39 (1.20)	3.77 ^a	-0.23	2.92 ^c
Occupation	0.94 (0.83)	4.64 (4.59)	1.57 (1.34)	1.00 (0.80)	5.72 (5.44)	1.51 (1.29)	-0.96	-2.85 ^c	0.65
Property	1.17 (1.23)	5.92 (6.47)	1.28 (1.31)	1.46 (1.21)	7.02 (6.65)	1.45 (1.28)	-3.12 ^b	-2.25 ^b	-1.80
Religion	0.36 (0.63)	2.01 (7.32)	0.53 (1.12)	0.20 (0.53)	1.31 (6.58)	0.40 (1.02)	2.82 ^c	1.37	1.64
Travel	0.26 (0.50)	1.67 (4.02)	0.59 (1.18)	0.29 (0.55)	2.97 (6.39)	0.51 (1.03)	-0.79	-3.19 ^d	0.98
Overall	6.87 (2.99)	7.98 (5.09)	2.19 (0.93)	6.84 (3.12)	9.06 (6.23)	2.04 (0.93)	0.13	-2.50 ^c	2.06 ^b

Note: Standard deviations appear in parentheses. Comparisons with superscripts are significant at ^aP<.05; ^bP<.02; ^cP<.01; ^dP<.001; ^eP<.0005. All t-tests are two-tailed.

There were statistically significant associations between dispositional optimism and age ($r = -0.078$, $P < .05$); gender ($r = -0.136$, $P < .005$); as well as educational status ($r = -0.156$, $P < .005$). To ensure that the dispositional differences found were not due to these relationships, analysis of covariance were carried out for those life domains in which one or more of these variables were shown to have statistical significant effect. After the effects of age, gender and educational status as covariates were controlled, the pattern of results were congruent with those reported above for

marriage- $F(1,711) = 20.40, P < .00005$; property- $F(1,711) = 9.23, P < .00005$; and religion- $F(1,711) = 8.44, P < .0005$ related hopes.

4.4.1b Content of Fear by Personal Disposition

The MANOVA indicated no statistical significant effect of personal disposition on the overall and domain-specific number of fears mentioned except for children's lives $F(1,668) = 7.64, P < .006$ and travel $F(1,668) = 4.04, P < .004$ (See Appendices C17 to C32). There was however a significant correlation between overall number of fears mentioned and personal disposition, $r(732) = 0.083, P < .02$. t-Test comparisons indicated statistical significant dispositional differences in five of the domain-specific contents of hope. These results are presented in Table 17. The results revealed that pessimists mentioned fears related to their children's lives, own health, occupation, and property significantly more often than optimists did. In contrast, optimists generated religion-related fears more frequently than pessimists.

After the effects of the other independent variables were controlled as covariates, a pattern of dispositional differences congruent with those reported above was evident for fears related to children's lives $F(1,711) = 16.14, P < .00005$; health $F(1,711) = 11.62, P < .00005$; occupation $F(1,711) = 6.52, P < .001$; property $F(1,711) = 8.00, P < .004$; and religion $F(1,711) = 10.01, P < .001$.

These results suggest a dispositional difference in people's future-oriented personal goals. Optimists significantly mentioned hopes related to

Table 17

Mean Content, Extension and Control of Fear by Personal Disposition

Life Domain	Personal Disposition						t-test Comparisons		
	Optimists (n = 323)			Pessimists (n = 411)			1 vs 4	2 vs 5	3 vs 6
	Content (1)	Extension (2)	Control (3)	Content (4)	Extension (5)	Control (6)			
Children's Lives	0.11 (0.36)	0.66 (3.06)	0.33 (1.03)	0.18 (0.52)	1.06 (4.43)	0.40 (1.08)	-2.07 ^a	-1.39	-0.91
Family	0.22 (0.46)	1.89 (7.8)	0.64 (1.38)	0.26 (0.53)	2.49 (9.18)	0.46 (1.13)	-0.96	-0.93	1.92 ^a
Health	0.30 (0.58)	2.84 (10.23)	0.65 (1.39)	0.45 (0.80)	4.29 (13.45)	0.76 (1.45)	-2.77 ^c	-1.63	-1.02
Occupation	0.19 (0.42)	1.29 (4.37)	0.49 (1.20)	0.28 (0.59)	1.65 (4.02)	0.57 (1.27)	-2.34 ^b	-1.07	-0.93
Property	0.23 (0.55)	1.46 (4.95)	0.44 (1.13)	0.35 (0.67)	2.30 (6.30)	0.71 (1.37)	-2.71 ^c	-1.96 ^a	-2.86 ^c
Religion	0.21 (0.47)	0.84 (5.59)	0.32 (0.96)	0.11 (0.33)	0.34 (2.84)	0.19 (0.78)	3.48 ^d	1.57	1.95 ^a

Note: Standard deviations appear in parentheses. Comparisons with superscripts are significant at ^aP < .05; ^bP < .02; ^cP < .01; ^dP < .001; ^eP < .0005. All t-tests are two-tailed.

two life domains than pessimists. The reverse was the case in only life domain. It was also shown that pessimists generated significantly more (four) fear related domains than optimists. Thus, although it was not conclusively demonstrated that optimists mentioned more hopes as we predicted, the fact that pessimists mentioned significantly more fears than hopes appear to support the hypothesis.

4.4.2a Extension of Hope by Personal Disposition

The MANOVA indicated no statistical significant effect of personal

disposition on both the overall and domain-specific extension of hopes (See Appendices C1 to C16). However, product moment correlation indicated a tendency for pessimists to extend their hopes farther into the future than optimists, $r(732) = 0.04, P > .13$. The t-test revealed an analogous result. Pessimists ($M = 0.06, SD = 6.23$) had significantly extended their hopes farther into the future than optimists ($M = 7.98, SD = 5.09; t[732] = 2.50, P < .01$). Furthermore, there were evident dispositional differences in only three of the domain-specific extension of hopes (See Table 16). Pessimists expected that their occupation-, property-, and travel-related hopes will occur much later in the future than optimists.

After the effects of age, gender and educational status as covariates were controlled, the pattern of dispositional difference was the same for travel-related hopes $F(1,711) = 17.41, P < .00005$. Dispositional differences in the other domains' extension failed to reach conventional levels of statistical significance.

4.4.2b Extension of Fear by Personal Disposition

MANOVA revealed no statistical significant effect of personal disposition on the overall and domain-specific extension of fears, except on retirement $F(1,668) = 3.87, P < .04$ (See Appendices C17 to C32). The t-test comparison also indicated only one evident dispositional difference. Pessimists ($M = 2.30, SD = 6.30$) extended their property-related fears farther into the future than optimists ($M = 1.46, SD = 4.95; t(732) = 1.96, P < .05$). However, when the effects of the other independent variables

were controlled, this dispositional difference failed to reach conventional levels of statistical significance.

In summary, the results suggest a dispositional difference in the temporal extension of future-oriented goals. However, the strength of the differences found here is rather weak and seem accounted for by the covariation of other independent variables. Nonetheless, the result showed the pessimists extending their goals (overall hope plus 3 domains) farther into the future than optimists. This finding is in line with our contention that pessimists extend their goals farther into the future than optimists.

4.4.3a Control of Hope by Personal Disposition

MANOVA revealed no statistical significant effect of personal disposition on overall and domain-specific perceived personal control of hope (See Appendices C1 to C16). However, t-test comparison of both groups revealed that pessimists ($M = 2.04$, $SD = 0.03$) believed they could exercise personal control over the occurrence of their hopes significantly more than optimists ($M = 2.19$, $Sd = 0.93$; $t[732] = 2.06$, $P < .04$). Furthermore, dispositional differences in three of the domain specific control of hope were found to be statistically significant (see Table 16). These revealed that pessimists believed they could exert more personal control over the occurrence of their hopes related to children's lives, own education and marriage than optimists.

After the effects of age, gender and educational status as covariates were controlled, the pattern of dispositional difference was analogous to that

reported above for extension of education-related hopes $F(1,711) = 11.70$, $P < .0001$. However, the dispositional differences in the extension of hopes related to children's lives and marriage failed to reach conventional levels of statistical significance.

4.4.3b Control of Fear by Personal Disposition

MANOVA indicated no evident effect of personal disposition on overall and domain-specific perceived personal control of fears (See Appendices C17 to C32). t-test comparison, however, showed evident dispositional differences in three of the domain-specific perceived personal control of hope scores (See Table 16). Pessimists anticipated more personal control over the prevention of their family- and religion-related fears than optimists. In contrast optimists believed they could exercise more personal control over the prevention of property-related fears than pessimists.

After the effects of the other independent variables as covariates were controlled, a pattern of dispositional difference analogous to that already reported was found for fears related to property $F(1,711) = 8.04$, $P < .004$. However, dispositional differences in the perceived personal control of family- and religion-related fears failed to reach conventional levels of statistical significance.

In summary, the results reported above suggests a dispositional difference in people's perceived personal control of future-oriented goals. Pessimists anticipated personal control over the realization of more life goal domains than optimists. Once again, however, most of the differences found

appear to be due to the covariation of personal disposition with the other independent variables. Thus only a tentative statement can be made here: Pessimists appear to hold more personal their control beliefs about the future than optimists. This contradicts our contention that optimists significantly perceive the future as more personally controllable than pessimists.

4.4.4 Affective Tone by Personal Disposition

There was a significant correlation between affective tone and personal disposition, $r(732) = -0.085, P < .02$. This result indicates that the more optimistic respondents were the more positive their outlook on the future. The t-test comparison of the mean affective tone scores of optimists and pessimists only approached, but did not reach conventional levels of statistical significance. This showed a tendency for optimists ($M = 7.32$) to have higher affective tone scores than pessimists ($M = 7.09; t[732] = 1.58, P > .11$). The evidence here is inconclusive. However, the optimists appear more positive in their evaluation of the future than pessimists as was expected.

4.5 RELIGIOSITY

In composing the two religiosity groups, the same procedure that was employed in the case of personal disposition (see Section 4.4) was followed. The median score of the distribution of the Religious Orientation Test (ROT) scores was found to be 12. Low scores on the ROT implies high degrees of religiosity, therefore, respondents whose scores fell below 12.5 were

regarded as deeply religious. Those whose scores fell above 12.5 were regarded as superficially religious. The provisos given above (see Section 4.4) also apply here. That is the labels applied are memory aids only.

4.5.1a Content of Hope by Religiosity

MANOVA indicated no statistical significant effect of religiosity on the overall and domain-specific number of hopes mentioned. However, t-test showed there were evident statistical significant religious orientation differences in four of the domain-specific contents of hope. These results are presented in Table 18. This revealed that the deeply religious significantly mentioned education- and religion-related hopes more often than the superficially religious. In contrast, members of the latter group generated self- and health-related hopes more frequently than those of the deep religious orientation group.

The results of the intercorrelations of the independent variables showed that religiosity related significantly with age ($r = 0.113, P < .004$); gender ($r = -0.189, P < .0005$); and educational status ($r = 0.173, P < .0005$). To ensure that the religious orientation differences found were not due to these relationships, analyses of covariance were carried out for those life domains in which one or more of these variables showed significant effects. When the effects of the other independent variables were controlled as covariates, the pattern of results was analogous to those reported above for education- $F(1,710) = 93.34, P < .00005$ and religion-related hopes $F(1,710) = 11.25 P < .00005$. However, the religiosity

than those of the deep religious orientation group ($M = 3.09$, $SD = 3.13$; $t(731) = 2.24$, $P < .05$). Furthermore, there were evident religiosity differences in only two of the domain-specific content of fears (See Table 19). The superficially religious mentioned health- and self-related fears significantly more often than the deeply religious did. However, when the effects of the other independent variables were controlled as covariates, these religiosity differences failed to reach conventional levels of statistical significance.

In summary, the results reported above suggests some religiosity differences in peoples future-oriented personal goals are related to their religiosity. Though both religiosity groups generated hopes related to two life domains significantly more than each other, there was the tendency for the deeply religious to mention more hopes overall. On the other hand, the superficially religious generated significantly more fears overall and in three life domains than the deeply religious. It might be reasonably concluded, therefore, that while superficially religious people anticipate more fears for the future, the deeply religious are more hopeful about the future. The deeply religious mentioned religion-related hopes significantly more than the superficially religious. These findings are in the general direction of our expectations.

4.5.2a Extension of Hope by Religiosity

MANOVA revealed no statistical significant effect of religiosity on the extension of overall and domain-specific fears (See Appendices C1 to C16).

than those of the deep religious orientation group ($M = 3.09$, $SD = 3.13$; $t(731) = 2.24$, $P < .05$). Furthermore, there were evident religiosity differences in only two of the domain-specific content of fears (See Table 19). The superficially religious mentioned health- and self-related fears significantly more often than the deeply religious did. However, when the effects of the other independent variables were controlled as covariates, these religiosity differences failed to reach conventional levels of statistical significance.

In summary, the results reported above suggests some religiosity differences in peoples future-oriented personal goals are related to their religiosity. Though both religiosity groups generated hopes related to two life domains significantly more than each other, there was the tendency for the deeply religious to mention more hopes overall. On the other hand, the superficially religious generated significantly more fears overall and in three life domains than the deeply religious. It might be reasonably concluded, therefore, that while superficially religious people anticipate more fears for the future, the deeply religious are more hopeful about the future. The deeply religious mentioned religion-related hopes significantly more than the superficially religious. These findings are in the general direction of our expectations.

4.5.2a Extension of Hope by Religiosity

MANOVA revealed no statistical significant effect of religiosity on the extension of overall and domain-specific fears (See Appendices C1 to C16).

Table 19

Mean Content, Extension and Control of Fear by Religiosity

Life-Domain	Religious Orientation						t-Test		
	Deep (n = 4.29)			Superficial (n = 304)			Comparisons		
	Content (1)	Extension (2)	Control (3)	Content (4)	Extension (5)	Control (6)	1 vs 4	2 vs 5	3 vs 6
Health	0.33 (0.71)	3.19 (11.81)	0.55 (1.28)	0.45 (0.72)	4.32 (12.34)	0.95 (1.57)	-2.25 ^b	-1.25	-3.81 ^a
Self	0.29 (0.71)	1.14 (5.58)	0.47 (1.11)	0.43 (0.83)	1.81 (15.46)	0.72 (1.33)	-2.46 ^b	-1.60	-2.82 ^c
National Affairs	0.31 (0.83)	1.13 (4.52)	0.58 (1.32)	0.41 (0.86)	1.03 (4.11)	0.80 (1.51)	-1.55	0.33	-2.11 ^a
Religion	0.17 (0.41)	0.29 (1.93)	0.25 (0.87)	0.14 (0.40)	0.88 (6.13)	0.23 (0.86)	0.90	-1.89 ^a	0.27
Retirement	0.05 (0.39)	0.45 (3.56)	0.08 (0.50)	0.07 (0.30)	1.26 (7.02)	0.14 (0.65)	-0.46	-2.06	-1.47
Overall	3.09 (3.13)	7.06 (11.10)	2.25 (1.62)	3.62 (3.14)	6.55 (9.61)	2.73 (2.96)	-2.25 ^a	0.58	-2.48 ^c

Note: Standard deviations appear in parentheses. Comparisons with superscripts are significant at ^aP<.05; ^bP<.02; ^cP<.01, ^dP<.001; ^eP<.0005. All t-tests are two-tailed.

However, t-test comparisons showed that three of the domain-specific temporal extension of hopes had statistically significant religiosity differences (See Table 18). The superficially religious extended their hopes related to children's lives, own health and social service farther into the future than the deeply religious. After the effects of the other independent variables were controlled, a pattern of results congruent with those reported above for the extension of hopes related to children's lives $F(1,710) = 6.54$, $P<.01$ and health $F(1, 710) = 5.74$, $P<.02$ were found. However, religiosity difference in the extension of social service-related hopes failed

to reach conventional levels of statistical significance.

4.5.2b Extension of Fear by Religiosity

MANOVA indicated no statistical significant effect of religiosity on the overall and domain-specific extension of fears (See Appendices C17 to C32). However, t-test comparison evident religiosity differences in two of the domain-specific extension of fears (See Table 19). The superficially religious extended their religion- and retirement- related fears farther into the future than the deeply religious. When the effects of the other independent variables were controlled as covariates, these religiosity differences failed to reach conventional levels of statistical significance.

In summary, the results reported above suggests some religious orientation differences in people's future time span. The evidence is however weak. The majority of the significant difference seem accounted for by the covariation of the independent variables. Nonetheless, the result do indicate that the superficially religious expected their goals, in those life domain in which there were such differences, to actualize later in the future than the deeply religious. This finding is a direct contradiction of our contention that the deeply religious have a significantly longer future time span than the superficially religious.

4.5.3a Control of Hope by Religiosity

There were no evident effect of religiosity on the personal control beliefs about hopes. However, t-test comparisons indicated statistical

significant religiosity differences in three of the domain-specific perceived personal control of hopes (See Table 18). The deep religious orientation group believed they could exercise personal control over the occurrence of health-, religion-, and self-related hopes significantly more than the superficially religious.

After the effects of the other independent variables were controlled a pattern of religiosity differences analogous to those reported above were evident for the perceived personal control of hopes related to religion $F(1,710) = 11.99, P < .00005$ and health $F(1,710) = 10.89, P < .00005$. However, religiosity difference in the perceived personal control of self-related hopes failed to reach conventional levels of statistical significance.

4.5.3b Control of Fear by Religiosity

MANOVA indicated no evident religiosity effect on overall and domain-specific control of fear. However, it appears that the more the degree of religiosity, the more personal control respondents believed they could exercise over the prevention of their fears, $r(731) = 0.111, P < .001$. Similarly, the t-test comparison showed that, the deeply religious ($M = 2.25, SD = 1.62$) anticipated more personal control over the prevention of their fears than the superficially religious ($M = 2.73, SD = 2.96; t[731] = -2.48, P < .01$). Furthermore, there were evident religious orientation differences in three of the domain-specific perceived control of fears (See Table 19). The deeply religious expected significantly more personal control of the prevention of health-, self-, and national affairs-related fears.

However, when the effects of the other independent variables as covariates were controlled, these religiosity differences failed to reach conventional levels of statistical significance.

In summary, the results reported above suggests religiosity differences in people's perceived personal control of future-oriented goals. Again, the evidence appear weak as the majority of the significant differences found seem accounted for by the covariation of the independent variables. Even then, however, the deeply religious appear to anticipate more personal control over the actualization of their future outcomes than the superficially religious. This finding is in line with our expectation that deeply religious people perceive the future as more controllable than the superficially religious.

4.5.4 Affective Tone by Religiosity

t-Test comparison showed that the deeply religious group ($M = 7.43$, $SD = 1.94$) had a significantly more positive outlook on the future than the superficially religious ($M = 6.86$, $SD = 1.85$; $t[731] = 3.96$, $P < .005$). However, this difference failed to reach conventional levels of statistical significance when the effects of the other independent variables were controlled as covariates.

4.6 MULTIPLE REGRESSION ANALYSES

A series of hierarchical multiple regressions were performed on the overall and domain-specific scores of content, temporal extension, perceived

personal control, and affective tone in order to identify the independent predictors of the different dimensions of future orientation. These analyses were carried out separately for hopes and fears. All analyses were undertaken by the stepwise procedure in which the independent variables were free to enter the regression equation. In essence, the primary criterion used to guide variable inclusion was their ability to meet the statistical criteria of an F-ratio value significant at .05 level. The order of inclusion was thus determined by the contribution of each independent variable to the explained variance in each of the dependent variable measures. Those independent variables that made no appreciable difference to the results of the regression analyses are not presented. Also omitted are those dependent variable measures (mainly domain-specific scores) not significantly predicted by any of the independent variables.

Deletion of missing values was listwise. Thus, all cases with one missing observation or the other were deleted. This meant a reduction in the number of cases available for this phase of data analyses. Nonetheless, the results are, in general, congruent with those already reported above.

4.6.1 Predictors of Overall and Domain-Specific Content of Hope

The results of the multiple regression on the content of hope are presented in Table 20. In the multiple regression on overall number of hopes mentioned, only age emerged as an independent predictor ($\beta = -0.262$, $t = -6.413$, $P < .00005$). The negative slope implies that the younger the respondents the more hopes they generated. This result is analogous to

those reported above. Specifically, there is a progressive decrease in the number of hopes mentioned with advance in age.

The analysis of the number of hopes related to children's lives mentioned revealed age ($\beta = 0.511$, $t = 9.812$, $P < .00005$), educational status ($\beta = -0.143$, $t = -2.767$, $P < .02$), and gender ($\beta = 0.092$, $t = 2.383$, $P < .03$) as independent predictors. The three variables together accounted for 18% (16%, 1.1%, and 0.8%, respectively) of the variance in number of hopes mentioned. The results indicate that: (1) older respondents mentioned these types of hopes more frequently than younger ones; (2) the less educated respondents (that is, those with secondary level education) were more concerned about the future of their children than the more educated; and (3) women mentioned hopes related to their children's future more frequently than men. It thus appear that older, less educated women are more concerned with the future of their children than are members of other groups.

Age ($\beta = -0.421$, $t = -8.520$, $P < .00005$), religiosity ($\beta = -0.075$, $t = -2.030$), and educational status ($\beta = -0.134$, $t = -2.657$, $P < .01$) emerged as independent predictors of the frequency of mention of education-related hopes. These variables together accounted for approximately 26% (24%, 0.9%, and 0.9%, respectively) of the variance in content of hopes. These results indicate that: (1) younger respondents showed more interest in future education than older people, (2) the deeply religious mentioned hopes related to future education than those who are

Table 20: Hierarchical Regression Analysis: Stepwise Prediction of Overall and Domain-Specific Content of Hope

Content of Hope Domains	dfs	Multiple R	R ²	R ² Increase	β	F	P <
Variables Predicting:							
Overall							
Age	1,709	0.262	0.068	0.068	-0.262****	41.262	.00005
Children's Lives							
Age	1,709	0.402	0.161	0.161	0.511****	107.737	.00005
Educational status	2,708	0.416	0.173	0.011	-0.143*	7.772	.005
Gender	3,707	0.426	0.181	0.008	-.092+	5.681	.01
Education							
Age	1,709	0.491	0.241	0.241	-0.421****	177.94	.00005
Religiosity	2,708	0.501	0.251	0.009	-0.075+	6.867	.01
Educational status	4,706	0.516	0.267	0.009	-0.134*	7.062	.01
Marriage							
Gender	1,709	0.227	0.051	0.051	0.189****	30.401	.00005
Age	2,108	0.297	0.088	0.037	-0.354****	22.418	.00005
Educational status	3,707	0.347	0.120	0.032	0.226****	20.363	.00005
Personal disposition	4,706	0.358	0.128	0.008	-0.089+	4.898	.03
Occupation							
Age	1,709	0.198	0.039	0.039	-0.198****	22.959	.00005
Property							
Gender	1,709	0.139	0.019	0.019	-0.144***	11.069	.001
Personal disposition	3,707	0.217	0.047	0.015	0.134*	9.096	.003
Educational status	4,706	0.232	0.054	0.006	-0.083+	3.868	.05
Religion							
Educational status	1,709	0.153	0.023	0.023	0.149***	13.503	.0003
Religiosity	2,708	0.197	0.039	0.015	-0.143***	8.801	.003
Gender	3,707	0.221	0.049	0.010	-0.117**	6.004	.01
Personal disposition	4,706	0.239	0.057	0.008	-0.093+	4.862	.03
Retirement							
Age	1,709	0.177	0.031	0.031	0.177****	18.217	.00005
Self							
Educational status	1,709	0.121	0.015	0.015	0.206***	8.355	.004
Age	2,708	0.153	0.023	0.008	-0.126*	4.966	.03
Travel							
Age	1,709	0.187	0.035	0.035	-0.200****	20.343	.00005
Gender	2,708	0.209	0.044	0.044	-0.093+	5.002	.02
National Affairs							
Age	1,709	0.104	0.011	0.011	0.104**	7.745	.005

+P < .05; *P < .01; **P < .005; ***P < .001; ****P < .0001.

The beta weights are from the final summary tables.

superficially religious, and (3) people with less education mentioned education-related hopes more often than those who are highly educated. It seems that young, deeply religious respondents with secondary level education were in the main more concerned about their future education than all other groups.

Four variables independently predicted the frequency of mention of marriage-related hopes. Gender emerged as the most powerful ($\beta = 0.189$, $t = 4.678$, $P < .00005$) to account for 5% of the variance; indicating that women mentioned marriage and own-family-related hopes more frequently than men. Age ($\beta = -0.354$, $t = -6.570$, $P < .00005$) was next, accounting for 4% of the variance. This suggests that younger respondents mentioned marriage and own family-related hopes more often than members of the older age groups. Educational status ($\beta = 0.226$, $t = 4.164$, $P < .00005$) entered the equation at the third step to account for another 3% of the variance in content of hope. Those with tertiary level education mentioned this type of hopes more frequently than the less educated. Finally personal disposition ($\beta = -0.090$, $t = -2.213$, $P < .03$) entered the equation to account for only 0.8% of the variance. Optimists showed more interest in marriage and own family than pessimists did. It appears that young, well-educated optimistic women mentioned marriage and own family-related hopes more often than members of other groups.

Age emerged as the only predictor of occupation-related hopes ($\beta = -0.198$, $t = -4.792$, $P < .00005$) accounting for approximately 4% of the variance in content of hope here. Younger respondents generated

occupation-related hopes more frequently than members of older age groups.

Gender ($\beta = -0.145$, $t = -3.442$, $t = .001$), personal disposition ($\beta = 0.134$, $t = 3.139$, $P < .01$), and educational status ($\beta = -0.083$, $t = -1.967$, $P < .05$) emerged as independent predictors property-related hopes. The three variables accounted for approximately 4% (2%, 1.5% and 0.6%, respectively) of the variance in content of hope. The results indicate that: (1) Men mentioned property-related hopes more frequently than women; (2) pessimists were more likely to be interested in owning properties than optimists, and (3) people with secondary level education mentioned hopes related to property more often than those with tertiary education. It seems that pessimistic men with low level education tend toward materialism more than members of the other groups.

The most powerful independent predictor of religion-related hopes was educational status ($\beta = 0.149$, $t = 3.517$, $P < .00005$) accounting for approximately 3% of the variance. Religiosity ($\beta = -0.143$, $t = -3.386$, $P < .001$) entered the equation at the second step to account for an additional 1.5% of the variance. Gender ($\beta = -0.117$, $t = -2.777$, $P < .005$) stepped into the equation next to account for another 1% of the variance. Finally, personal disposition ($\beta = -0.093$, $t = -2.205$, $P < .03$) accounted for only 0.8% of the variance. These results indicate that: (1) respondents with tertiary education generated more religion-related hopes than the less educated; (2) the deeply religious respondents mentioned hopes related to religion more frequently than did those who are superficially religious; (3) Men mentioned religion-related hopes more often than women; and (4)

Optimists listed more religion-related hopes than pessimists. These findings suggest that well-educated, deeply-religious optimistic men are more likely to be interested in their future religious behaviour than members of other groups.

Age was the only independent predictor of retirement-related hopes ($\beta = 0.178$, $t = 4.268$, $P < .00005$). It accounted for only 3% of the variance in content of hope. Older age groups mentioned retirement-related hopes more frequently than the younger ones.

Both educational status and age emerged as independent predictors of the frequency of mention of hopes related to self-development and growth ($\beta = 0.206$, $t = 3.645$, $P < .0003$ and $\beta = -0.126$, $t = -2.228$, $P < .02$, respectively). They accounted for another 2.3% (1.5% and 0.8% respectively) of the variance in content of hope here. Respondents with higher level of education mentioned self-related hopes more frequently than those with the lower level of education. However, it was the younger age groups that did so. Thus, we may conclude that well-educated young people showed more concern about their future self-development and growth.

Travel-related hopes was independently predicted by age and gender ($\beta = -0.200$, $t = -4.792$, $P < .00005$ and $\beta = -0.093$, $t = -2.236$, $P < .05$, respectively). Both variables together accounted for an additional 4.4% (3.5% and 0.8%, respectively) of the variance in content of hope. Young respondents mentioned travel-related hopes more often than the older ones did. Furthermore, men generated more of these type of hopes more than women. In sum, it appears that young men were more interested in travel.

Age emerged as the only independent predictor of hopes related to the future of the nation ($\beta = 0.104$, $t = 2.783$, $P < .005$) to account for only 1% of the variance in content of hope. Older age groups are more concerned about the future of the nation.

In summary, all five independent variables predicted the frequency of mention of hopes. However, they tended to predict different sets of life domains. Age was a significant predictor of the overall number of hopes mentioned and seven of the 15 life domain and accounted for approximately 59% of the total variance in content of hope. The results are analogous to those reported earlier and provide further evidence in partial support of the hypotheses. The results indicate that (1) Older persons mentioned significantly fewer hopes than people of younger age groups. (2) The mention of hopes decrease progressively with advance in age. (3) People's hopes were related to the developmental goals of their own age. Young people mentioned education-, marriage-, self- and travel-related hopes more frequently, whereas the older generations were more concerned with their children's future, own retirement and the nation's future.

Educational status was the next most powerful independent predictor of the frequency of mention of hopes. It predicted the mention of six domain-specific hopes and accounted for approximately 28% of the variance in content of hope. Respondents with tertiary level education mentioned marriage-, religion-, and self-related hopes more frequently than those with secondary education. In contrast, members of the latter group mentioned hopes related to children's lives, education and property more frequently.

This does not provide clear evidence in support of the expectation that people with higher level of education will mention significantly more goals. The earlier findings in this respect appear not to have shown up under a more rigorous test. Nonetheless, it may be concluded that the higher their level of education the more hopes people seem to have for the future. Such goals are related to life domains in which they seem not to have achieved their ambitions.

Gender emerged as an independent predictor of five of the domain-specific hopes accounting for approximately 9% of the variance in content of hopes. Men, as expected, mentioned property and career, travel and religion-related hopes more often than women. In contrast, women showed more interest in family (marriage and children's lives) related hopes. Note that gender failed to predict the mention of education-related hopes.

Personal disposition appeared to be a weak predictor of the frequency of mention of hopes. It emerged as an independent predictor of only three life domains and accounted for a marginal 3% of the variance in content of hope. While pessimists significantly mentioned property-related hopes more, the optimists generated marriage- and religion-related hopes significantly more. There is some evidence, although somewhat weak, in support of the expectation that optimists mention more hopes and, in particular, more religion-related hopes than pessimists.

Religiosity predicted only two of the 15 domain-specific hopes and accounted for a marginal 2% of the variance in content of hope. In both instances, the deeply religious were shown to have mentioned more hopes. Although the evidence is weak, it tends to support the hypothesis that the

deeply religious mention significantly more religion-related hopes than the superficially religious.

4.6.2 Predictors of Overall and Domain-Specific Extension of Hopes

The results of the hierarchical regression analyses on the temporal extension of hopes are presented in Table 21. Educational status and age emerged as independent predictors ($\beta = -0.123$ and -0.124 , $t = -2.203$ and -2.216 , respectively, $P < .02$) of overall extension of hopes. While educational status explained roughly 4%, age accounted for only 0.8% of the total variance in temporal extension of hopes. The results indicate that people with secondary education and younger respondents extended their hopes farther into the future than those with tertiary education and are older, respectively. That is, less educated young people expect their hopes to occur farther into the future than members of other groups.

Age emerged as the only independent predictor of the extension of hopes related to children's lives ($\beta = 0.221$, $t = 6.061$, $P < .00005$) to account for an additional 5% of the variance. The results indicate that older respondents extended hopes related to children's lives farther into the future than did the younger age groups.

The analysis of extension of education-related hope revealed age and educational status as independent predictors ($\beta = -0.265$ and 0.205 , $t = -4.723$ and 3.655 , $P < .0005$ and $.0003$, respectively). Both variables accounted for approximately 4% (2% of each) of the variance in extension of hopes. The results suggest that young respondents with tertiary education

Table 21

Hierarchical Regression Analysis: Stepwise Prediction of Overall and Domain-Specific Extension of Hope.

Content of Hope Domains	dfs	Multiple R	R ²	R ² Increase	β	F	P<
Variables Predicting:							
Overall							
Educational status	1,709	0.202	0.041	0.041	-0.123+	23.729	.00005
Age	3,707	0.237	0.056	0.008	-0.124+	4.910	.03
Children's Lives							
Age	1,709	0.221	0.049	0.049	0.221****	36.737	.00005
Education							
Age	1,709	0.117	0.016	0.016	-0.265***	9.882	.002
Educational status	2,708	0.187	0.039	0.023	0.205***	12.905	.0003
Marriage							
Age	1,709	0.464	0.215	0.215	-0.464****	153.295	.00005
Occupation							
Age	1,709	0.353	0.124	0.124	-0.353****	79.659	.00005
Family							
Age	1,709	0.087	0.007	0.007	-0.087+	4.286	.04
Property							
Age	1,709	0.209	0.043	0.043	-0.149*	25.559	.00005
Gender	2,708	0.246	0.059	0.016	-0.132***	9.567	.002
Educational status	4,706	0.278	0.077	0.007	-0.117+	4.514	.03
Religion							
Gender	1,709	0.100	0.010	0.010	-0.100+	5.717	.02
Retirement							
Educational status	1,709	0.106	0.011	0.011	0.106*	6.358	.01
Social Service							
Religiosity	1,709	0.101	0.010	0.010	0.101+	-5.742	.02
Travel							
Age	1,709	0.261	0.068	0.068	-0.170**	40.832	.00005
Educational Status	2,708	0.281	0.079	0.011	-0.125+	6.546	.01
Personal disposition	3,707	0.293	0.086	0.007	0.084+	4.181	.04
National Affairs							
Age	1,709	0.091	0.008	0.008	0.091+	6.617	.03

+P<.05; *P<.01; **P<.005; ***P<.001; ****P<.0001

The beta weights are from the final summary tables.

expected their education-related hopes to occur later in the future than did members of the other groups:

Age emerged as the only independent predictor of the extension of marriage-related hopes ($\beta = -0.464$, $t = -12.381$, $P < .00005$) to account for 22% of the variance in extension of hope here. Respondents in the younger age groups extended their marriage-related hopes farther into the future than did members of the older age groups.

Age was again the only independent predictor of extension of occupation-related hopes ($\beta = -0.353$, $t = -8.925$, $P < .00005$) explaining 12% of the variance. Respondents of the younger age groups expected their occupation-related hopes to actualize in the more distant future than the older age groups.

The multiple regression on the extension of family-related hope scores again revealed only age as independent predictor ($\beta = -0.087$, $t = -2.070$, $P < .04$). It accounted for only 0.7% of the total variance in extension of hope. Young respondents expect their extended family-related hopes to materialize in the more distant future than older generations.

The extension of property-related hopes was independently predicted by age ($\beta = -0.144$, $t = -2.608$, $P < .01$), gender ($\beta = -0.132$, $t = -3.205$, $P < .001$), and educational status ($\beta = -0.117$, $t = -2.125$, $P < .03$). These variables accounted for approximately 8% (4%, 2% and 0.7%, respectively) of the variance in extension of hope. These results indicate that: (1) young respondents extended their property-related hopes farther into the future than older ones; (2) Men expected their acquisition of properties to actualize

later in the future than women; and (3) respondents with secondary education expected their property-related hopes to occur farther into the future than those with tertiary education. These findings imply that young men with secondary education expect their acquisition of properties to actualize in the more distant future than members of other groups.

Gender emerged as the only independent predictor of the extension of religion-related hopes ($\beta = -0.100$, $t = -2.391$, $P < .02$) to account for an additional 1% of the variance in extension of hope. Men extended their religion-related hopes farther into the future than women.

Educational status emerged as the only independent predictor of the extension of retirement-related hopes ($\beta = 0.106$, $t = 2.521$, $P < .01$) to account for another 1% of the variance in extension of hope. Respondents with tertiary education expected their retirement hopes to occur later in the future than those with secondary education.

The multiple regression on the extension of social service-related hopes revealed religiosity as the only independent predictor ($\beta = 0.101$, $t = 2.396$, $P < .02$). This accounted for another 1% of the variance in temporal extension of hope. Deeply religious respondents extended their social service-related hopes farther into the future than those who are superficially religious.

In the multiple regression on the extension of travel-related hopes, age ($\beta = -0.170$, $t = -3.099$, $P < .002$), educational status ($\beta = -0.125$, $t = -2.255$, $P < .02$), and personal disposition ($\beta = 0.084$, $t = 2.045$, $P < .04$) emerged as independent predictors. Together they accounted for

approximately another 9% (7%, 1.3%, and 0.7%, respectively) of the variance in extension of hope. These results suggest that: (1) young respondents extended their travel-related hopes farther into the future than those in the older age groups; (2) respondents with secondary education expected to be able to travel at a more distant time in the future than those with tertiary education; and (3) pessimists expected their travel hopes to actualize later in the future than optimists. These findings suggest that young pessimists with less education expect their travel-related hopes to actualize later in the future than members of other groups.

When the domain-specific extension scores of national affairs-related hopes were regressed on the independent variables, only age emerged as an independent predictor ($\beta = 0.091$, $t = 2.149$, $P < .03$). It accounted for a further 0.8% of the variance in extension of hope. Older respondents expected their hopes in the nation's future to actualize in the more distant future.

In summary, all five independent variables predicted the extension of hopes. Once again, they tended to predict different sets of domain-specific extensions. Age again emerged as the most powerful predictor of this variable. It independently predicted overall and eight domain-specific temporal extension of hope, accounting for 50% of the total variance. One consistent finding, which is also analogous to the results already presented, is the fact that younger respondents expected their hopes (both overall and domain-specific) to actualize later in the future than those in the older age groups. Furthermore, the life domains of interest are closely related to the

normatively prescribed life goals of each age group. That is, people tended to extend hopes related to the life tasks of their own age farther into the future than they did the goals of a future or by gone age. These findings add to the evidence in support of the contention that older persons express significantly less concern with the future than younger persons. Specifically, the evidence here and from the other analysis support the expectations that older people extend their hopes into the near future more often than younger persons. There are also evidence of a linear decrease in the overall and domain-specific extension of hopes with advance in age (see Figure 3). The only exceptions being the extension of hopes related to children's lives and national affairs. While the extension of hopes related to children's lives decreased linearly, that related to national affairs was almost bimodal.

As was the case with content of hope, educational status also emerged as the second most powerful predictor of temporal extension of hopes. It independently predicted overall and four domain-specific extension and accounted for a little over 9% of the variance in the temporal extension of hopes. In direct contradiction with the expectations, the evidence suggests that less educated people extend their hopes farther into the future than those with higher levels of education.

Gender emerged as the independent predictor of the temporal extension of only two life domains and accounted for a marginal 3% of the variance. In line with the expectations, women tended to expect their hopes to occur in the less distant future than men. However, the evidence is weak as it rests on only two significant differences which cannot override the

number that may be expected by chance alone.

Both personal disposition and religiosity were poor predictors of temporal extension of hope. They predicted only one domain-specific extension each and accounted for 0.7% and 1% of the variance, respectively. There are no evidence here in support of any of the hypotheses. However, the results of other analyses suggests that optimists tend to extend their hopes farther into the future than pessimists. This appears to be in interaction with other variables, principally age and educational status. This implies that personal disposition only potentiate the effects of these other variables and possesses only a minimal variance of its own. These same observations are true for religiosity.

4.6.3 Predictors of Overall and Domain-Specific Control of Hopes

The results of the hierarchical regression analyses on the perceived personal control of hopes are presented in Table 22. The multiple regression analysis on overall perceived personal control of hope scores revealed educational status as the only independent predictor ($\beta = 0.110$, $t = 3.63$, $P < .01$). This accounted for only 3% of the total variance in the perceived control of hope. Respondents with secondary education believed they could influence the actualization of their hopes more than those with tertiary education.

Both age and gender emerged as independent predictors of the perceived personal control of hopes related to children's future ($\beta = 0.346$ and 0.109 , $t = 8.052$ and 2.718 , $P < .00005$ and $.01$, respectively).

Together both variables accounted for a further 12% (11% and 1%, respectively) of the variance in perceived control of hopes. Young men believed more in their ability to direct the course of their children's lives than did members of other groups.

Age ($\beta = -0.274$, $t = -4.949$, $P < .00005$), personal disposition ($\beta = -0.135$, $t = -3.254$, $P < .001$), educational status ($\beta = 0.178$, $t = 3.153$, $P < .002$); and religiosity ($\beta = -0.115$, $t = -2.792$, $P < .005$) emerged as independent predictors of the perceived control of education-related hopes. The four variables accounted for approximately 7% (2.1%, 2%, 1.3% and 1.3%, respectively) of the variance in perceived control of hope. The results suggest that: (1) older respondents expected to be able to control the occurrence of their education-related hopes more than those in younger age groups; (2) pessimists held a more personal control beliefs about their future education than optimists; (3) respondents with secondary education believed they could influence the actualization of their education-related hopes more than those with tertiary education; and (4) the superficially religious were more personal in their control beliefs about their future education than the deeply religious. In other words, older pessimists with low level of education and a superficial religious orientation hold more personal control beliefs about education-related hopes than members of other groups.

The perceived personal control of marriage and own family-related hopes was independently predicted by age ($\beta = -0.346$, $t = -6.258$, $P < .00005$), educational status $\beta = 0.276$, $t = 5.022$, $P < .00005$), and gender ($\beta = 0.90$, $t = 2.03$, $P < .03$). Together they accounted for approximately a further 8% (3%, 4%, and 0.8%, respectively) of the

variance in perceived control of hope. These results indicate that: (1) older respondents felt they could exert more control over the occurrences of their marriage-related hopes than younger ones; (2) respondents with secondary education believed they could influence the materialization of their marriage-related hopes than those with tertiary education; (3) Men held more personal control beliefs about the actualization of their marriage-related hopes than women. These findings indicate that older men with secondary education believed they had the ability to influence the course of their marriages and family than members of other groups.

The multiple regression analysis on the perceived personal control of occupation-related hopes revealed age and educational status as independent predictors ($\beta = -0.281$ and 0.134 , $t = -5.025$ and 2.391 , $P < .00005$ and $.02$, respectively). This accounted for a further 5% (4% and 1%, respectively) of the variance in perceived control of hope. Older respondents with low level education felt they could exert more control over the occurrence of their occupation-related hopes than members of other groups.

Gender emerged as the only independent predictor of perceived personal control of property-related hopes ($\beta = -0.135$, $t = -3.221$, $P < .001$) accounting for an additional 2% of the variance in the variable. Women anticipated more personal control over the actualization of their property-related hopes than men.

Religiosity ($\beta = -0.183$, $t = -4.364$, $P < .00005$), educational status ($\beta = 0.134$, $t = 3.208$, $P < .001$), and gender ($\beta = -0.116$, $t = -2.773$, $P < .005$) emerged as independent predictors on perceived control of religion-

Table 22: Hierarchical Regression Analysis: Stepwise Prediction of Overall and Domain-Specific Control of Hope.

Control of Hope Domains	dfs	Multiple R	R ²	R ² increase	β	F	P<
Variables Predicting:							
Overall							
Educational status	2,708	0.182	0.012	0.012	0.100*	6.993	.01
Children's Lives							
Age	1,709	0.331	0.110	0.110	0.346***	69.046	.00005
Gender	2,708	0.348	0.121	0.011	0.109*	7.386	.01
Education							
Age	1,709	0.145	0.021	0.021	-0.267****	12.055	.001
Personal disposition	2,708	0.201	0.040	0.019	-0.124***	11.125	.001
Educational status	3,707	0.231	0.053	0.013	0.179***	7.738	.005
Religiosity	4,706	0.257	0.066	0.013	-0.115**	7.765	.005
Marriage							
Age	1,709	0.172	0.030	0.030	-0.346***	17.070	.00005
Educational status	2,708	0.266	0.071	0.041	0.276***	24.753	.00005
Gender	3,707	0.280	0.078	0.008	0.090+	4.851	.03
Occupation							
Age	1,709	0.191	0.036	0.036	-0.281****	21.175	.00005
Educational status	1,708	0.215	0.046	0.009	0.134+	5.718	.05
Property							
Gender	1,709	0.135	0.018	0.018	-0.135***	10.376	.001
Religion							
Religiosity	1,709	0.145	0.021	0.021	-0.183****	11.986	.001
Educational status	2,708	0.265	0.042	0.021	0.134***	12.299	.0005
Gender	3,707	0.232	0.054	0.012	-0.116**	7.056	.01
Retirement							
Educational status	1,709	0.100	0.010	0.010	0.100+	5.667	.02
Self							
Educational status	1,709	0.091	0.008	0.008	0.091+	4.689	.03
Social Service							
Educational status	1,709	0.098	0.009	0.009	0.098+	5.459	.02
Travel							
Age	1,709	0.094	0.009	0.009	-0.094+	5.034	.02
National Affairs							
Age	1,709	0.099	0.010	0.010	0.099+	5.534	.02

+P<.05; *P<01; **P<.005; ***P<.001; ****P<.0001

The beta weights are from the final summary tables.

related hopes. The three variables accounted for another 5% (2%, 2% and 1%, respectively) of the variance in perceived control of hope. These results indicate that: (1) the superficially religious felt they could exert more control over their religion-related hopes than did the deeply religious; (2) respondents with secondary education held more personal control beliefs about the materialization of their religion-related hopes than those with tertiary education; (3) women held more personal control beliefs about their religion-related hopes than men. These findings suggest that superficially religious women with secondary education hold more personal control beliefs about their religion-related hopes than members of other groups.

Educational status emerged as the only independent predictor of perceived personal control of retirement-related hopes ($\beta = 0.100$, $t = 2.381$, $P < .02$) to account for only an additional 1% of the variance in this variable. Respondents with secondary education believed they could exert personal influence on the occurrence of their retirement-related hopes more than those with tertiary education.

Educational status was again the only independent predictor of the perceived control of hopes related to self-development and growth ($\beta = 0.091$, $t = 2.165$, $P < .03$). It accounted for only a marginal 1% of the variance in perceived control of hope. Respondents with secondary education believed they had the ability to influence the occurrence of their self-related hopes more than those with tertiary education.

The multiple regression analysis on perceived control of social service-related hopes, revealed educational status as the only independent predictor

($\beta = 0.098$, $t = 2.337$, $P < .02$). It accounted for 1% of the variance in perceived control of hope. Respondents with secondary education believed they could control their social service-related hopes more than those with tertiary education.

Age emerged as the only independent predictor of perceived control of travel-related hopes ($\beta = -0.094$, $t = -2.244$, $P < .02$) to account for another 1% of the variance in the variable. Older respondents felt they could exert control on the materialization of their travel-related hopes more than younger age groups.

Age was again the only independent predictor of perceived control of national affairs-related hopes ($\beta = 0.099$, $t = 2.352$, $P < .02$) accounting for a further 1% of the variance. Younger respondents anticipated more personal influence over occurrence of their hopes for the future of the nation more than the older age groups.

The results reported above reveal educational status as the most powerful predictor of perceived personal control of hope. It predicted overall and seven of the 15 domain-specific perceived personal control of hope and accounted for 15% of the total variance. The results suggest that respondents with secondary education held more personal control beliefs about their hopes for the future than members of the tertiary education group. This is in direct contradiction with the expectation that the higher their level of education the more personal control beliefs people hold about their future.

Age emerged as the second most powerful independent predictor of

perceived personal control of hope. It predicted six of the domain-specific perceived personal control of hope and explained 22% of the variance. It appears that the older the respondents held the more personal control beliefs about the future. While the older respondents felt they could influence the actualization of their hopes related to four life domains, the younger ones felt the same about only two. The results contradict the contention that older persons perceive the future as less controllable than younger age groups.

Gender predicted four life domains and accounted for approximately 5% of the variance in perceived control of hopes. The results are mixed, while men expected to be able to exercise personal control over the occurrence of their children's lives and marriage-related hopes, women held the same beliefs about property- and religion-related hopes. This evidence do not conclusively support or negate our hypothesis that women hold less personal control beliefs about the future.

Personal disposition and religiosity were again weak predictors of the perceived control of hopes. While personal disposition independently predicted only one domain and accounted for marginal 2% of the variances in perceived personal control of hopes, religiosity predicted two domains and accounted for a little over 3% of the variance. Although these results are below the numbers that may be expected by chance, some tentative statements are possible. It would appear that pessimists perceive the future as more controllable than optimists. Similarly, it seems that deeply religious persons hold more personal control beliefs about the future than the superficially religious.

4.6.4 Predictors of Overall and Domain-Specific Contents of Fear

A summary of the results of the hierarchical regression analyses on the content of fear is presented in Table 23. The multiple regression of the overall frequency of mention of fear revealed only age as an independent predictor ($\beta = -0.130$, $t = -2.894$, $P < .004$). This accounted for only 1.4% of the total variance in the content of fear. Respondents in the younger age groups generated more fears about the future than those in the old age groups.

In the multiple regression on the frequency of mention of fears related to children's lives, age ($\beta = 0.365$, $t = 6.622$, $P < .0005$), educational status ($\beta = -0.181$, $t = -3.259$, $P < .001$) personal disposition ($\beta = 0.105$, $t = 2.537$, $P < .01$), and gender ($\beta = 0.089$, $t = 2.167$, $P < .03$) emerged as independent predictors. These variables together explained approximately 9% (5%, 2%, 1% and 1%, respectively) of the variance in content of fear. The results suggest that: (1) older respondents mentioned fears related to their children's lives more often than those in the younger age groups; (2) secondary educated respondents mentioned fears related to their children's lives more often than those with tertiary education; (3) optimists mentioned fears related to children's lives more often than pessimists; and (4) women showed more concern about the future of their children than men. These findings suggest that older, less educated optimistic women fear for the future of their children more than do members of other groups.

Regression analyses revealed age and gender as independent predictors ($\beta = -0.311$ and 0.107 , $t = -7.463$ and 2.668 , $P < .0005$ and

Table 23: Hierarchical Regression Analysis: Stepwise Prediction of Overall and Domain-Specific Content of Fear.

Control of Fear Domains	dfs	Multiple R	R ²	R ² increase	β	F	P <
Variables Predicting:							
Overall							
Age	1,709	0.121	0.014	0.014	-130**	8.376	.004
Children's Lives							
Age	1,709	0.222	0.049	0.049	0.365***	29.106	.00005
Educational status	2,708	0.268	0.072	0.022	-0.181***	13.398	.003
Personal disposition	3,707	0.283	0.080	0.008	0.105*	4.957	.02
Gender	4,706	0.296	0.088	0.008	0.089+	4.697	.03
Education							
Age	1,709	0.304	0.093	0.093	-0.311****	57.139	.00005
Gender	2,708	0.323	0.104	0.011	0.107*	7.193	.01
Marriage							
Gender	1,709	0.118	0.014	0.014	0.111*	7.947	.005
Age	2,708	0.156	0.023	0.011	.0110*	6.037	.01
Interpersonal							
Gender	1,709	0.082	0.007	0.007	-0.083+	3.862	.05
Health							
Gender	1,709	0.172	0.030	0.030	-0.162***	17.727	.00005
Personal disposition	2,708	0.199	0.039	0.009	0.097+	5.370	.02
Occupation							
Age	1,709	0.117	0.014	0.014	-0.109***	7.757	.005
Personal disposition	2,708	0.151	0.009	0.009	0.096+	5.223	.02
Family							
Age	1,709	0.095	0.009	0.009	-0.095+	5.080	.02
Property							
Personal disposition	1,709	0.119	0.014	0.014	0.119**	8.001	.005
Religion							
Personal disposition	1,709	0.138	0.019	0.019	-0.152***	10.911	.001
Religiosity	2,708	0.167	0.028	0.008	0.095+	5.130	.02
Retirement							
Age	1,709	0.150	0.022	0.022	0.150***	12.946	.0003
Self							
Educational status	1,709	0.130	0.017	0.017	0.217****	9.576	.002
Age	2,708	0.161	0.026	0.009	-0.129+	5.196	.02
Social Service							
Educational status	1,709	0.089	0.008	0.008	0.089+	4.532	.03
Travel							
Educational status	1,709	0.195	0.038	0.038	-0.195****	22.138	.00005
National Affairs							
Educational status	1,709	0.177	0.031	0.031	0.166****	18.047	.00005
Gender	2,708	0.204	0.042	0.010	-0.102*	6.050	.01

+P<.05; *P<01; **P<.005; ***P<.001; ****P<.0001

The beta weights are from the final summary tables.

.01; respectively) of education-related fears. Together they accounted for approximately 10% (9% and 1%, respectively) of the variance in content of fear. Young respondents expressed more fears about their future education than members of the older generations. Women mentioned education-related fears more often than men. Young women express more fears about their future education than do members of other groups.

The frequency of mention of marriage-related fears was independently predicted by gender and age ($\beta = 0.111$ and -0.110 , $t = 2.639$ and -2.620 , respectively, $P < .01$). Together they accounted for approximately 2% (1.4% and 1%) of the variance in content of fear. Women were significantly more apprehensive about the future of their marriages and own families than men. Young people expressed more fears related to marriage and own family than older persons did. In brief, young women generated more marriage and own family-related fears than other groups.

Gender emerged as an independent predictor of the frequency of mention of fears related to interpersonal relationships ($\beta = -0.083$, $t = -1.965$, $P < .05$) to account for only an additional 0.7% of the variance in content of fear. Men mentioned interpersonal-related fear more frequently than women.

Gender and personal disposition emerged as independent predictors of health-related fears ($\beta = -0.162$ and 0.097 , $t = -3.873$ and 2.317 , $P < .0001$ and $.02$, respectively). Both variables accounted for approximately 4% (3% and 0.9%, respectively) of the variance in content of fear. Men expressed more fears about their future state of health than women.

Pessimists showed more concern with their future health conditions than optimists. These results indicate that pessimistic men tend to be more concerned with their future state of health than members of other groups.

The multiple regression on occupation-related fears revealed age and personal disposition as independent predictors ($\beta = -0.109$ and 0.096 , $t = -2.609$ and 2.286 , $P < .01$ and $.02$, respectively). The two variables accounted for a further 2.3% (1.4% and 0.9%, respectively) of the variance in content of fear. Young respondents mentioned occupation-related fears more often than members of the older age groups. Pessimists expressed more occupation-related fears than optimists. Pessimistic young people are more apprehensive about their future employment and occupational career.

Age emerged as the only independent predictor of extended family-related fears ($\beta = -.095$, $t = -2.254$, $P < .02$) to account for another 1% of the variance in content of fear. Younger people mentioned extended family-related fears more often than older respondents.

Only personal disposition independently predicted the mentioning of property-related fears ($\beta = 0.119$, $t = 2.829$, $P < .005$). It explained 1.4% of the variance in content of fear. Pessimists generated more property-related fears than optimists.

In the multiple regression analysis on religion-related fears, personal disposition and religiosity emerged as predictors ($\beta = -0.152$ and 0.095 , $t = -3.605$ and 2.265 , $P < .0003$ and $.02$, respectively). Both variables accounted for an additional 3% (2% and 1%, respectively) of the variance in content of fear. Optimists expressed more religion-related fears than

pessimists. Superficially religious respondents mentioned fears related to religion more often than the deeply religious. Superficially religious optimists expressed more religion-related fears than members of other groups.

Age emerged as the lone independent predictor of the frequency of mention of retirement-related fears ($\beta = 0.150$, $t = 3.598$, $P < .0003$) to account for another 2% of the variance in content of fear. Respondents in the older age groups mentioned more fears about their retirement than younger generations.

Educational status and age as independent predictors ($\beta = 0.217$ and -0.129 , $t = 3.831$ and -2.280 , $P < .0001$ and $.02$, respectively) of self-related fears. Educational status accounted for approximately 2% of the variance, while age explained only 1%. Respondents with tertiary education mentioned self-related fears more than those with secondary education. Furthermore, respondents in the younger age groups showed more concern about their future self-development and growth than those in the older age groups. These findings suggest that highly educated young people express more self-related fears than members of other groups.

Educational status emerged as the only independent predictor of social service-related fears ($\beta = 0.089$, $t = 2.129$, $P < .03$) to account for another 0.8% of the variance in content of fear. Respondents with tertiary education mentioned fears related to helping others and the society more often than those with secondary education.

Educational status again emerged as the only independent predictor of travel-related fears ($\beta = -0.195$, $t = -4.705$, $P < .00005$) this time to

explain a further 4% of the variance in content of fear. Respondents with secondary education expressed fears related to travel more often than those with tertiary education.

In the multiple regression on national affairs-related fears, educational status and gender emerged as independent predictors ($\beta = 0.166$ and -0.102 , $t = 3.991$ and -2.460 , $P < .0001$ and $.01$) to account for an additional 4% (3% and 1%, respectively) of the variance in content of fear. Respondents with tertiary education expressed more fears about the future of the nation than those with secondary education. Men were more concerned about the future of the nation than women. These findings suggest that highly educated men show more concern about the affairs of the nation than members of other groups.

In summary, as was the case with the results on the content of hope, age was again the most powerful independent predictor of the content of fear. It independently predicted the overall and seven domain-specific frequency of mention and accounted for over 22% of the variance in content of fear. These results are broadly analogous to those reported earlier and provide further evidence in support of the hypotheses that: (1) older persons have significantly fewer future-oriented goals than younger age groups. This was found to be true in respect of both hopes and fears. (2) People's goals reflected the normatively prescribed developmental tasks of their own age. It was amply demonstrated that adolescents and young adults show more interest in education-, marriage-, occupation-, self- and property-related hopes and fears more than middle-aged and elderly people. In contrast, the

latter groups showed more interest in family (children and own family)-, health-, retirement-, and national affairs-related hopes and fears.

Gender emerged as the second most powerful independent predictor of the content of fear, accounting for only 8% of the variance. It predicted 6 domain-specific content of fears. Both men and women showed significant concern in three domains each. While males expressed more health-, interpersonal-, and national affairs-related fears; women expressed more fears-related to marriage and own family, education and children's lives. These results are congruent with those already reported above. However, while the results tend to support the hypothesis that women are more concerned with goals related to family and males career-related goals more frequently, the results with respect to education-related goals stands out. Females were consistently shown to mention education-related goals (both hopes and fears) more often than males.

Educational status predicted five domain-specific and accounted for approximately 12% of the variance in content of fear. It appears that people with secondary education generated more goals (hopes and fears) than those with tertiary education. This is contrary to the expectation that the higher the level of education the more future-oriented goals people have.

In contrast to the results found with respect to content of hope; personal disposition predicted five domain-specific fears against the three domain-specific hopes predicted. It accounted for approximately 6% of the variance in content of fear against the 3% of the variance in content of hope

it explained. Also, the results on hopes suggest that optimists tended to mention more hopes having shown significant interest in two life domain against the one pessimists mentioned more frequently. In contrast, pessimists significantly mentioned more (five) domain-specific fears than optimists. This, then, support the prediction that pessimists mention significantly more fears than optimists. It would appear that optimists have more hopes and pessimists more fears about their future.

Religiosity was again a weak independent predictor of the content of fear just like it was of other measures of future orientation. It predicted only one domain-specific fear and accounted for a marginal 0.8% of the variance in content of fear. One observation that stands out is that religiosity related most consistently with religion-related goals than all other domains of life. The deeply religious not only mentioned more hopes, but they also expressed more fears in this life domain. This appear to support the contention that the deeply religious are more concerned with religion-related goals than the superficially religious.

4.6.5 Predictors of Overall and Domain-Specific Extension of Fears

Table 24 presents a summary of the results of the hierarchical regression analyses on the overall and domain-specific temporal extension of fear scores. In the multiple regression on overall extension of fear, educational status and gender emerged as independent predictors ($\beta = -0.185$ and -0.150 , $t = -4.474$ and -3.630 , $P < .00005$ and $.0003$,

respectively). The two variables together accounted for 5% (3% and 2%, respectively) of the total variance in extension of fear. The negative slopes imply that: (1) respondents with secondary education expected their fears to occur later in the future than those with tertiary education; and (2) men extended their fears farther into the future than women. These results indicate that men with secondary education expected their fears to actualize in the more distant future than members of other groups.

Age emerged as the sole independent predictor of the extension of education-related fears ($\beta = -0.195$; $t = -4.692$, $P < .00005$) to account for approximately 4% of the variance in the extension of fears. This result indicates that respondents of the younger generations expected their fears related to education to occur later in the future than older people did.

The temporal extension of marriage-related fears was independently predicted by only educational status ($\beta = -0.215$, $t = -5.212$, $P < .0005$), accounting for roughly an additional 5% of the variance in extension of fear. Respondents with secondary education extended their fears regarding marriage and own family farther into the more distant future than those with tertiary education.

The multiple regression on the extension of interpersonal relations-related fears revealed only gender as an independent predictor ($\beta = -0.126$, $t = 3.017$, $P < .0003$). It accounted for an approximately further 2% of the variance in extension of fear here. Men expected their fears related to interpersonal relationships to occur later in the future than women.

Table 24

Hierarchical Regression Analysis: Stepwise Prediction of Overall and Domain-Specific Extension of Fear

Control of Hope Domains	dfs	Multiple R	R ²	R ² increase	β	F	P<
Variables Predicting:							
Overall							
Educational status	1,709	0.170	0.029	0.029	-0.185****	16.626	.0001
Gender	2,708	0.226	0.051	0.022	-0.150***	13.178	.0003
Education							
Age	1,709	0.195	0.038	0.038	-0.195***	22.015	.00005
Marriage							
Educational status	1,709	0.215	0.046	0.046	-0.215****	27.169	.00005
Interpersonal							
Gender	1,709	0.126	0.016	0.016	-0.126**	9.102	.002
Health							
Gender	1,709	0.111	0.012	0.012	-0.111*	7.067	.01
Leisure							
Educational status	1,709	0.093	0.008	0.008	-0.093+	4.936	.03
Occupation							
Educational status	1,709	0.189	0.036	0.036	-0.189****	20.825	.00005
Family							
Educational status	1,709	0.157	0.025	0.025	-0.157***	14.139	.0002
Property							
Gender	1,709	0.102	0.010	0.010	-0.102*	5.931	.01
Retirement							
Gender	1,709	0.113	0.012	0.012	-0.101+	7.216	.01
Age	2,708	0.141	0.020	0.007	0.086+	4.184	.04
Travel							
Educational status	1,709	0.183	0.033	0.033	-0.183****	19.330	.00005
National Affairs							
Gender	1,709	0.085	0.007	0.007	-0.085+	4.138	.04

+P<.05; *P<01; **P<.005; ***P<.001; ****P<.0001

The beta weights are from the final summary tables.

Gender was again the only independent predictor of the extension of health-related fears ($\beta = -0.111$, $t = -2.659$, $P < .01$) accounting for only an

additional 2% of the variance in extension of fear. Men extended health-related fears farther into the future than women.

The temporal extension of fears related to leisure was independently predicted by only educational status ($\beta = -0.093$, $t = -2.222$, $P < .03$). It accounted for only an additional 0.8% of the variance in extension of fear. Respondents with secondary education expected their leisure-related fears to occur farther into the future than those with tertiary education.

Educational status again emerged as the only independent predictor of occupation-related fears ($\beta = -0.189$, $t = -4.563$, $P < .00005$). It accounted for another 4% of the variance in extension of fear. Respondents with secondary education extended their fears about employment and occupational career farther into the future than those with tertiary education.

The temporal extension of family-related fears was again independently predicted by only educational status ($\beta = -0.157$, $t = -3.760$, $P < .0002$). It accounted for another 3% of the variance in extension of fear here. Respondents with secondary education once again extended their fears in this life domain farther into the future than those with tertiary education.

In the multiple regression on the temporal extension of fears related to property, gender emerged as the only independent predictor ($\beta = -0.102$, $t = -2.435$, $P < .01$). It accounted for only another 1% of the variance in extension of fear. Men were indicated to expect their fears related to the acquisition of property to happen in the more distant future than women.

The multiple regression on the extension of retirement-related fears

revealed gender and age as independent predictors ($\beta = -0.101$ and 0.086 , $t = -2.355$ and 2.046 , $P < .02$ and $.04$, respectively). Both variables together explained an additional 2% (1.2% and 0.7%, respectively) of the variance in extension of fear. Men expected their retirement-related fears to occur later in the future than women. Respondents in the older age bracket extended their fears related to retirement farther into the future than younger generations. These results suggest that elderly men expect their retirement fears to occur in the more distant future than younger people.

The extension of travel-related fears was independently predicted by only educational status ($\beta = -0.183$, $t = -4.397$, $P < .00005$). It accounted for a further 3.3% of the variance in extension of fear. Respondents with secondary education expected their travel-related fears to actualize later in the future than those with tertiary education.

Gender emerged as the lone independent predictor of the temporal extension of fears related to national affairs ($\beta = -0.086$, $t = -2.034$, $P < .04$), accounting for only a marginal 0.7% of the variance in extension of fear. Men expected fears related to the future of the nation to occur in the more distant future.

Only three of the five independent variables were revealed to significantly predict the overall and domain-specific extension of fears. This contrasts with what was found in respect of the temporal extension of hope. In that analysis all five independent variables contributed to the variance. Educational status emerged as the most powerful independent predictor of

the temporal extension of fear. It independently predicted overall and five domain-specific extension of fears. However, it explained only 18% of the total variance in this variable. These results point to the fact that people with secondary education significantly extend their fears farther into the future than those with tertiary education. This is congruent with the results found in respect of the temporal extension of hopes. In that analysis, it was demonstrated that less educated people extend their hopes farther into the future than people with tertiary education. These findings negate our prediction that the higher the level of education the farther into the future people extend their future-oriented goals.

Gender emerged as the second most powerful independent predictor of the temporal extension of fear. It contributed only an approximately 8% to the total variance in extension of fears. The results suggest that men expected their fears (both overall and five domain-specific) to occur later in the future than women did. This is analogous to what was found in respect of the extension of hopes. The number of domain-specific extensions predicted in that instance was below the number expected by chance. Nonetheless, it indicated that men had the longer time span than women. When that result is considered with those found here, it would appear that men expected their future-oriented personal goals to actualize in the more distant future. This is in line with the prediction that women's temporal extension is shorter than that of men.

Age seems to be a weak predictor of the temporal extension of fear.

This is in contrast to what we obtained from the analysis on the extension of hope, where age emerged as the most powerful independent predictor. Here, age predicted only two domain-specific extension of fears and explained a marginal 5% of the variance. The results are mixed; while younger respondents expected fears related to future education to actualize in the more distant period, those of the other generations anticipated that retirement-related fears would occur later in the future. This shows a concern with goals of one's own age and is in line with findings in respect of the content of goals. However, the evidence does not support the contention that older persons extend their future goals into the near future more often than younger persons. When these results are considered against the backdrop of those already reported for the extension of hopes, one begins to get a clearer picture of the findings in respect of this hypothesis. It was demonstrated in those other analyses that younger respondents expected their hopes to actualize later in the future than did people of older age groups. In brief therefore the data of this study support our hypothesis. It appears that people of the younger age groups (adolescents and young adults) extend their future-oriented goals farther into the future than those of other age groups. Furthermore, people's future time span appears to extended further into the future for those goals that are the life tasks of their own age. Finally, the decrease in the temporal extension of future-oriented goals are linked with the particular hope or fear domain in question.

4.6.6 Predictors of Overall and Domain-Specific Control of Fear

A summary of the hierarchical regression analyses on the perceived personal control of overall and domain-specific fear scores is presented in Table 25. In the multiple regression on overall perceived personal control of fear scores, only educational status emerged as an independent predictor ($\beta = 0.224$, $t = 5.439$, $P < .00005$). It accounted for 5% of the variance in this measure. Respondents with secondary education believed they could influence the prevention of their fears more than those with tertiary education.

Age emerged as the only independent predictor of the perceived control of fears related to children's lives ($\beta = 0.190$, $t = 4.582$, $P < .00005$). It accounted for another 4% of the variance in the perceived control of fear. Younger respondents believed that they could prevent the occurrence of fears related to their children's future to a greater extent than the older generations.

When the perceived personal control scores of education-related fears were regressed on the independent variables, gender ($\beta = 0.088$, $t = 2.107$, $P < .03$), educational status ($\beta = 0.266$, $t = 4.756$, $P < .00005$), and age ($\beta = -0.244$, $t = -4.341$, $P < .00005$) emerged as independent predictors. Together, the three variables accounted for a further 5% (0.9%, 1% and 3%, respectively) of the variance in perceived control of fear. The results suggest that: (1) Men held more personal control beliefs about their ability to prevent education-related fears than women; (2) respondents with secondary education believed they could control the prevention of their

education-related fears more than those with tertiary education; and (2) older respondents felt they could personally prevent the occurrence of their education-related fears. These results indicate that elderly men with secondary education anticipated more personal control over the prevention of education-related fears than members of other groups.

The multiple regression on the perceived personal control of marriage-related fears revealed only educational status as an independent predictor ($\beta = 0.096$, $t = 2.278$, $P < .02$). It accounted for another 0.9% of the variance in the perceived control of fear. Respondents with secondary education expected to be able to exert personal control over the prevention of their marriage-related fears more than those with tertiary education.

Gender emerged as the only independent predictor of the perceived control of interpersonal-related fears ($\beta = -0.100$, $t = -2.375$, $P < .02$). It accounted for an additional 1% of the variance in perceived control of fear. Women expected more personal influence on the prevention of fears related to interpersonal relationships than men.

The analysis of perceived personal control of health-related fears revealed educational status and gender as independent predictors ($\beta = 0.185$ and 0.132 , $t = 4.489$ and -3.187 , $P < .00005$ and $.001$, respectively). Together the two variables explained 6% (4% and 2%, respectively) of the variance in perceived control of fear. Respondents with secondary education believed they could exercise more personal control over the prevention of health-related fears than those with higher education. Women anticipated more personal control over the prevention of health-related fears than men. In other words, secondary school educated women

held more personal control beliefs about the prevention of future health problems than other groups.

Educational status and age emerged as independent predictors of the perceived control of leisure-related fears ($\beta = -0.137$ and -0.122 , $t = -3.272$ and -2.925 , $P < .001$ and $.004$, respectively). Together they accounted for a further 3% (1.5% each) of the variance in perceived control of fear. Respondents with tertiary education held more control beliefs about the prevention of leisure-related fears than those with secondary education. Older persons anticipated more personal influence over the prevention of leisure-related fears than young people. These results suggest that well educated elderly people believed they could exercise personal control over the prevention of leisure-related fears.

The multiple regression on perceived control of extended family-related fears revealed educational status as the only independent predictor ($\beta = 0.092$, $t = 2.180$, $P < .03$). It accounted for another 0.8% of the variance. Respondents with secondary education anticipated more personal control over the prevention of extended family-related fears than those with tertiary education.

In the multiple regression on perceived control of property-related fears, personal disposition and educational status emerged as independent predictors ($\beta = 0.140$ and 0.136 , $t = 3.325$ and 3.220 , $P < .0001$ and $.001$, respectively). Both variables accounted for a further marginal 3% (1.4% and 1.8%, respectively) of the variance. Optimists believed that they

Table 25

Hierarchical Regression Analysis: Stepwise Prediction of Overall and Domain-specific Control of Fear.

Control of Hope Domains	dfs	Multiple R	R ²	R ² increase	β	F	P <
Variables Predicting:							
Overall							
Educational status	1,709	0.224	0.050	0.050	0.224***	29.586	.00005
Children's Lives							
Age	1,709	0.190	0.036	0.036	0.190****	20.992	.00005
Education							
Gender	1,709	0.094	0.009	0.009	0.088+	4.992	.02
Educational status	2,708	0.139	0.019	0.010	0.266****	6.007	.01
Age	3,707	0.227	0.051	0.032	-0.244****	18.840	.00005
Marriage							
Educational status	1,709	0.096	0.009	0.009	0.096+	5.190	.02
Interpersonal							
Gender	1,709	0.100	0.010	0.010	-0.100+	5.642	.02
Health							
Educational status	1,709	0.199	0.039	0.039	0.185****	23.077	.00005
Gender	2,708	0.238	0.057	0.017	-0.132***	10.158	.001
Leisure							
Educational status	1,709	0.124	0.015	0.015	-0.137****	8.802	.003
Age	2,708	0.174	0.030	0.015	-0.122***	8.555	.003
Family							
Educational status	1,709	0.092	0.008	0.008	0.092+	4.751	.03
Property							
Personal disposition	1,709	0.119	0.014	0.014	0.140***	8.039	.005
Educational status	2,708	0.179	0.032	0.018	0.136***	10.368	.001
Religion							
Educational status	1,709	0.151	0.023	0.023	0.151***	13.079	.0003
Retirement							
Age	1,709	0.138	0.019	0.019	0.138***	10.849	.001
Self							
Educational status	1,709	0.175	0.031	0.031	0.256****	17.627	.00005
Age	2,708	0.196	0.038	0.008	-0.121+	4.638	.03
Travel							
Educational status	1,709	0.144	0.021	0.021	-0.144***	11.816	.001
National Affairs							
Educational status	1,709	0.217	0.047	0.047	0.202****	27.518	.00005
Gender	2,709	0.259	0.067	0.020	-0.143***	12.069	.001

+P < .05; *P < .01; **P < .005; ***P < .001; ****P < .0001

The beta weights are from the final summary tables.

could exert control over the prevention of their property-related fears more than pessimists. Respondents with secondary education held the more personal control beliefs about their ability to influence the prevention of property-related fears than those with tertiary education. These results suggest that optimists with secondary education anticipated more personal control over the prevention of their fears related to the acquisition of properties.

The perceived control of religion-related fears was independently predicted by only educational status ($\beta = 0.151$, $t = 3.616$, $P < .0003$). It accounted for another 2% of the variance in perceived control of fear. Respondents with secondary education believed they could control the prevention of religion-related fears more than those with tertiary education.

Age emerged as the only independent predictor of the perceived control of retirement-related fears ($\beta = 0.139$, $t = 3.295$, $P < .001$). It accounted for a further 2% of the variance in perceived control of fear. Younger respondents held more personal control beliefs about the prevention of retirement-related fears than people of older generation.

The multiple regression on the perceived control of fears related to self-development and growth revealed educational status and age as independent predictors ($\beta = 0.256$ and -0.121 , $t = 4.563$ and -2.154 , $P < .00005$ and $.03$, respectively). Both variables together accounted for another 4% (3.1% and 0.8%, respectively) of the variance in perceived control of fear. Respondents with secondary education felt they could exert personal control over the prevention of their self-related fears. Older

respondents believed they could personally control the prevention of their self-related fears. These results indicate that old people with secondary education hold the more personal control beliefs about the prevention of self-related fears than members of other groups.

Educational status emerged as the only independent predictor of the perceived control of travel-related ($\beta = -0.144$, $t = -3.437$, $P < .0006$). It accounted for another 2% of the variance in perceived control of fear. Respondents with tertiary education believed they could influence the prevention of their travel-related fears more than did those with secondary education.

Educational status and gender emerged as independent predictors ($\beta = 0.202$, and -0.143 , $t = 4.941$ and -3.474 , $P < .00005$ and $.0006$, respectively) of national affairs-related fears. The two variables together explained a further 7% (4.7% and 2%, respectively) of the variance. Respondents with secondary education believed they could influence the prevention of their fears about the future of the nation more than those with tertiary education. Furthermore, women held more personal control beliefs about the prevention of fears related to national affairs than men. These results suggest that women with secondary education feel they can exert personal control over fears related to the nation's future than did members of other groups.

Perceived personal control of both overall and domain-specific fears was independently predicted by four independent variables. Together they

accounted for 45% of the total variance in the perceived control of fear. This contrasts with the results in respect of the perceived control of hopes where all 5 independent variables entered the equation and accounted for approximately 44% of the variance. While religiosity contributed to the variance in the perceived control of hope, it did not enter any of the regression equations on the perceived control of fear. Educational status, like it did in the case of perceived control of hope, also emerged as the most powerful independent predictor of the perceived control of fear. It significantly explained 27% of the variance in the measure and predicted both overall and 10 domain-specific scores of the variable. The directions of the relationships found here are analogous to those already reported from other phases of data analyses. In the main, people with secondary education hold more personal control beliefs about future-oriented personal goals. As mentioned earlier, this finding directly contradicts our contention that the relationship is in the opposite direction. Thus, high level of education is related to feelings of a loss or lack of personal control over one's future.

Age was also revealed to be a powerful predictor of the perceived personal control of fear in confirmation of the findings in respect of hope. In that analysis age explained 22% of the variance in this variable. Here, it predicted five domain-specific scores and accounted for 11% of the variance. Again, as was the case with perceived control of hope, the older generation of respondents held the more personal control beliefs than the younger ones. It thus appears that the older the person the more personal

control s/he believes she can have over his/her future. This is in contradiction with the expectations that older persons perceive the future as less controllable than younger people.

As was the case with the perceived control of hope, gender again predicted four domains of perceived personal control of fear and accounted for 6% of the variance. However, the domains predicted here were different from those predicted in the analysis of hope. The directions of the relationships observed show men to hold more personal control beliefs than women in respect of five (two hope and three fear) domains, while the women held such beliefs in respect of three (two hope and one fear) domains. Although there was a trend towards men holding the more personal control beliefs, the results can not be said to have conclusively vindicated our contention that women are less personal in their attributional evaluation of the future. It seems from the results that people hold the more personal beliefs about those goals in which they had little interest. This may explain why men felt they could control their educational and marriage goals in which women mentioned more goals. On the other hand, women felt they could exert personal control over those goals mentioned more frequently by men.

Personal disposition predicted only two domain-specific scores and accounted for just 1.4% of the explained variance in perceived personal control of fear. This result is in line with those reported in respect of hope. While pessimists believed they could control the occurrence of their future-

oriented property hopes, optimists held the same beliefs about their future-oriented property fears. The results are therefore mixed and difficult to interpret. Nonetheless, there is no evidence either in support or in negation of our contention that optimists significantly perceive the future as more controllable than pessimists.

CODESRIA - LIBRARY

CHAPTER FIVE

DISCUSSION

This study sought to describe how Nigerians conceive of their future. Four dimensions of future-orientation (thematic content, temporal extension, perceived personal control, and affective tone) were identified. An attempt was then made to characterize the impact that age, gender, educational status, personal disposition, and religiosity had on these dimensions of future-oriented motivation. Several hypotheses were proposed to explain the possible relationships between these independent variables and the dimensions of future orientation. The data of the study, while providing ample evidence in support of some of these hypotheses, also appeared to contradict others. Thus the results of the study were mixed. In this chapter we shall discuss these findings in the light of our theoretical framework and evidence provided by previous studies in the research field. In doing so, we shall organize the material according to the independent variables (and consequently, the major hypotheses).

5.1 DISCUSSION OF FINDINGS

Some general points deserve mention by way of highlighting the salient features of the future orientation of Nigerians. Based on the data of this study, it is reasonable to assume that educated Nigerians have well-elaborated conceptions of their future. It was found that respondents between the ages of 13 to 56 years were able to generate hopes and fears

that they could describe vividly and specifically. The apparent ease with which the respondents of all ages and educational level were able to generate numerous goals suggest that our instrument - the Future Possibilities Questionnaire (FPQ) - taps into relatively accessible features of general self-knowledge, albeit representations of the self in future states. Thus, the results of this study support the validity of the FPQ. It also illustrates the fact that personal goals are the contents of people's future oriented thought.

The findings also indicate that our approach is consistent with other recent work in social psychology that emphasizes the role of personally relevant tasks, projects, and strivings in understanding stability and change across the life-span (Cantor & Kihlstrom, 1987; Emmons, 1986; Erikson, 1950; Little, 1983). Each of these conceptualizations includes a recognition of normatively prescribed developmental tasks (Havighurst, 1974) or socially designated responsibilities that engages most people during a particular portion of the life-span. These tasks may be made personally relevant through the development and elaboration of personal goals. Indeed, motivational theorists have begun to argue for a 'personalized motivation' that view actions as governed less by generalized instincts and more by personal, idiosyncratic self-conceptions (Nuttin, 1984; Pervin, 1989). Thus, two people may have similar needs, but the form that these needs assume, and the intentions and actions associated with them, depend on what these individuals believe to be possible for themselves. A developmental perspective may allow us determine how general needs are processed into

concrete personal goals at various points in the life cycle and perhaps why it is that some people appear more motivated than others.

The data of this study suggest that when given the opportunity people can reflect on their future. The contents of such future thoughts centre around personally meaningful life goals. Thus, personal goals are personalized sets of normatively prescribed life tasks. Our respondents were able to imagine extremely heterogeneous sets of goals. Moreover, these goals do not appear to be particularly constrained by their life situations or current happenings. Though the goals were stated in idiosyncratic and personally meaningful styles, they were easily classifiable into normatively prescribed life task categories (Cantor *et al.*, 1991; Erikson, 1954; Havighurst, 1974; Neugarten *et al.*, 1965). Most of the goals generated by the respondents relate to expected life-span transitions and the developmental tasks of the different generations involved in the study. Also, the majority of the respondents indicated a concern with a limited range of life domains. We found that our respondents listed goals that could be coded into an average of four hope and three fear life domains, respectively. This is hardly surprising because different life tasks become prominent in people's life at different ages in the life course. Therefore, as expected, people mentioned only those goals that were the concerns of their own age and developmental stage. However, the fact that some goals that are the life tasks of future stages not those of the respondents were mentioned, indicate that people are generally aware of what will occupy them at those stages in the life span.

The present analysis shows that people's future oriented goals may be clustered around four life domains. These are education, marriage, property, and occupation; which together accounted for 65% of all the goal statements generated. The high level of interest in education related goals may be explained by two interrelated factors. The first is the high premium placed on educational achievement by our society. In spite of the current high rate of graduate unemployment, it appears that people still view education as their route to the attainment of major life ambitions. An indication of this is the large number of young men and women that seek admission into the nation's universities each year. The second possible explanation is the fact that our respondents were people involved in the education industry in one capacity or the other. These are people who are naturally conscious of the important role of education not only as a stepping stone to other life achievements but also as a means of personal development.

Marital concern is a cultural universal that cut across all ages and gender. Thus, it was expected that prominence will be given to this life domain. An empirical backing of what people know intuitively is the high rate of interest in the acquisition of property shown by the respondents. It seems that most respondents see themselves devoting much of their future life to the accumulation of material things. This partly confirms the assumptions in the popular press (Kanu, 1992; Okediran, 1992; Onumah, 1995) that Nigerians are inordinately concerned with the material aspects of life. It would appear that those still climbing the educational ladder hope to complete their education, get a job, marry and then start the business of

acquiring property.

A consistent positive bias was noted in the overall numbers of hopes and fears mentioned by the respondents. While an average of seven hopes were generated, only a mean of three fears were mentioned. This tendency held true for almost all 15 life domains (although the disparity varied considerably by domain). It would appear that Nigerians have a positive outlook on the future. This finding was strengthened by the result of the analysis of the affective tone scores, which also indicated a significant positive outlook on the future by the respondents. It should be noted, however, that this latter analysis was based on the overall number of hopes and fears mentioned. Thus, both findings derive from the same set of scores. Nonetheless, both analyses indicate a positive bias in peoples outlook on their future. This may simply indicate the fact that in looking into the future people see more hopes than fears. On the other hand, it may be a result of an overall optimistic attitude towards the future similar to those reported by other workers (Markus & Nurius, 1986; Nurmi, 1992). Another possibility, given the cultural environment, Nigerians consciously suppresses anything negative because of the idea that if they say those things it will inevitably happen to them. They are generally reluctant to wish anything but the positive for themselves. The finding however refute our speculation that Nigerians, due to the current harsh socioeconomic and unsettled political climate, will have a future-orientation dominated with fears. The results are also in contradiction with another set of findings (Shannon, 1975) indicating a positive relationship between social conditions and future orientation. This contradiction may reflect measurement inconsistencies and also suggest

cultural differences between Nigeria and Euro-American samples. However, as suggested by Shannon (1975) and Trommsdorff (1983), the crucial factor is the subjective nature of prospective affective appraisal of the future rather than objective existential conditions. Although fewer fears than hopes were mentioned, these few fears appear to be an ever present phenomenon in people's lives. We found that most of the fears listed were viewed to be in the open present by the respondents. Indeed, a significant percentage of overall and domain-specific fears were found to have a mean substantially less than one year. This apparent contradiction may be explained by the disposition of Nigerians in interaction with their present life circumstances. By nature, Nigerians appear to be a hopeful and optimistic people. This assertion is supported by their mention of more hopes than fears and by their overwhelming positive outlook on the future. The fear entertained for the present are extended into the very near future. The distant future appears futile and is anticipated with some sense of foreboding. It is not surprising therefore that our respondents expected their fears to occur sooner than their hopes.

Due to the fact that their present is beset with uncertainties of intimidating proportions, people are unable to extend their fears farther into the future than their hopes as reported by other workers in the field (Nurmi, 1992). The sole difference here is the obtaining existential situations of the people at the time of each study. As analyzed in detail in our introduction, the current existential situation indicate a foreclosure of the future in every day thought. Thus, our respondents' expectation that their fears will occur in the nearer future than their hopes would appear to reflect an overall

pessimistic attitude towards the future. Based on such concepts as positive attributional bias (Zuckerman, 1979) and positive illusions (Taylor & Brown, 1988) identified recently in social psychology one would have expected people to say: "My wants will be realized sooner than my fears." Unfortunately, circumstances as currently obtains have forced Nigerians to expect the exact opposite. In fact, our respondents seem to be saying: "My fears will occur sooner than my hopes and thus prevent their (hopes) realization." It may, however, be argued that people prefer their ends to be better than their present. Thus, while the present may be clouded by an ever present fear, the more distant future is perceived as more hopeful. People might prefer to suffer now, the current deprivations and denials, and enjoy later in the future the objects of their hope. The gratification of hopes are thus extended into the more distant future than fears. In sum, people seems to prefer the worst to occur earlier so that their later life may be more pleasant. In fact, a Yoruba proverb roughly translates as "May our end be better than our beginning."

It thus appears that the current political and socio-economic conditions have made Nigerians a cautious people who, though forward looking, face the future with a very big IF. A people constantly aware that time and changing circumstances can and do intervene to influence their life outcomes can not be expected to do otherwise. Thus, while our hopeful and optimistic disposition enables us to envision the attainment of normatively prescribed personal goals, the current existential situation has taught us to be cautious in our expectations. People live in fear believing that the hoped for future may not come anyway. So, although people are unable to readily

articulate their fears when asked, the fact that they saw those poorly articulated fears occurring before the better articulated hopes indicate that our daily life is beset by a host of formless and innumerable fears. What we have then is a classic Nigerian form of cautiousness and realism. While being hopeful that the future may bring about positive changes in one's life chances, people are also constantly intimidated by the fear of the unknown.

Indeed, the analysis of the perceived personal control data, in line with the report of Dada and Awaritefe (1993), suggest that Nigerians do not feel in full control of their own destiny. We found that the respondents control beliefs about the future were neither overwhelmingly personal nor overwhelmingly external. That is, their control beliefs were in the mid range. This point to the same cautious disposition alluded to just above. It is also worthy of note that while the respondents felt they could control the occurrences of their hopes, they believed they could not prevent their fears from happening. The extent to which people believe they are able to control their own life and personal goals plays an important role in how they think about and regulate their own development (Brandtstadler, 1984). It is not surprising therefore that our respondents expected their fears will prevent their hopes from occurring. They felt unable to prevent such occurrences and thus felt their fears will occur sooner than their hopes.

The findings of this study suggest that Nigerians are somewhat more involved in the future than are people from Euro-American societies. The consensus in the extant literature from those societies indicate that peoples average future time span is within the 4 to 5 years range (Boniecki, 1980;

Poole & Cooney, 1986; Sundberg *et al.*, 1983). In comparison, we found the future time span of our respondents to be 7 and 9 years, respectively for fears and hopes. This suggest that Nigerians, on the average, extend their goals farther into the future than people of comparable ages and social backgrounds from the above cited societies. This finding refutes earlier anthropological speculations quoted by Doob (1970) which indicated that Nigerians were present oriented. This erroneous conclusion may have arisen due to methodological weaknesses of the studies reviewed. Most based their speculation of the length of the calendar weeks of each of the cultures studied. Thus, our results suggest that, as noted previously, Nigerians are normally a forward looking people who are ready and willing to delay the gratification of their wants. However, due to their current existential circumstances, they see most of their fears in the nearer future than their hopes. On the other hand, this may be a cultural bias. That is, Nigerians differ from people studied in earlier reports in that rather than expect their hopes to occur sooner than their fears they expect the reverse. A cross-cultural study may throw more light on these points. One thing is certain from our results, however. That is, Nigerians rather than being present oriented, are to a large extent future-oriented. On this score, it may be concluded that rather than being impatient as suggested in our introduction, Nigerians are ready to wait a long time for the fulfillment of their life ambitions. It would appear that the farther into the future goals were extended, the less people believed they can influence their realization, and the less positive their outlook on the future. As future events approach in

time, the sense of control and hopefulness concerning them increases. Although, this appear consistent with our model, it was not directly tested here.

5.2 AGE DIFFERENCES

The pattern of results for age were generally consistent with our expectations and predictable from previous research in the area. Overall, they indicated a generational difference in the perception of paths through hierarchical social structures. The qualitative meanings of the major life goals were different for the age groups in the sample. The generations defined or described their personal goals in radically different ways. The number of goal statements generated was progressively fewer with advance in age. Thus, although respondents of all ages generated a diversity of goals, older respondents described fewer hopes and fears, and these fell within a more limited range of life domain. Although there were some similarities in the expression of the listed goals, each age group revealed a uniquely characteristic style. While the adolescents' goals were stated in expansive and extreme terms those of the older respondents were expressed in more realistic and concrete terms. The younger age groups showed interest in several goals indicating that they viewed the future as filled with many possibilities and options. Thus, a 13-year old may simultaneously picture him/herself as a lawyer, an entrepreneur, an academician, and a sport star. Such obvious conflicting goals may not significantly direct behaviour. Yet the diverse array of such personal goals may be a means by which the

adolescent attempts to assess his or her potential in a variety of domains (Rosenberg, 1979).

The results of this study showed that people's personal goals related to the major normatively prescribed life tasks of their own age (Cantor *et al.*, 1987; Erikson, 1954; Havighurst, 1974; Levinson, 1986). Not only did the specificity and configurations of the goals mentioned differ on the basis of age, but also the sets of life domains of interest differed to a great extent. The major interests of the adolescents related to education, occupation, marriage, travel and property. On the other hand their fears centred on a fewer number of life domains. These were education, marriage and occupation. The educational goals of this youngest age group related mainly to performance and achievements in this domain of life. They hoped to pass their examinations and gain admission into tertiary institutions. In conjunction with this, their occupational goals indicated that they viewed education as a preparation for future occupational roles. Thus, their main concern in this life domain is that of becoming something. Becoming a doctor, a lawyer, an accountant and so on. In most cases, it is only after stating what they hoped to become that they became aware of issues related to employment. Thus, the majority of their fears in this life domain related to unemployment. The marriage and property goals of adolescents indicated some form of fantasy or wishful thinking. This suggests that they have as yet not begun taking any concrete steps towards the attainment of these goals. They were aware that these are the goals that will engage them at a future age. In brief, it appears that our adolescents saw themselves

achieving in the educational sphere, getting into a good profession and career, marry and settle down, and then start the business of acquiring properties.

The constellation of goals most frequently mentioned by young adults indicated that they were in the process of establishing their identity and independence (Erikson, 1963) and settling down (Levinson *et al.*, 1976) or putting down roots (Chickering & Havighurts, 1981). Their hopes related most often to education, marriage, property, occupation and self-development and growth, while their fears concerned marriage, education, self, national affairs and health. Unlike the adolescents, for 19- to 35-year-olds marriage was not sometime to fantasized about but a project to be worked on and attained. Thus, these young adults mentioned such goals as getting a life partner and marrying more often than did other age groups. This contrast with the more vague statements (such as 'marrying the most beautiful girl') of the adolescents. The marriage and own family goals of the young adults, as were most of their goals, indicated new beginnings; getting married and starting a family, begin the bearing and raising of children, and learning to be a parent. On the other hand, the educational goals of the majority of the young adults indicated a termination of a role. That is, they were concerned with completing their education rather than mere performance and achievement that were the concern of the adolescents. While the adolescents were concerned with making career choices, the young adults (having made such choices) were now hoping to get a job and make a success of their occupational roles. Here again, we found evidence

of new beginnings. The interest here is getting started on the career ladder rather than climbing the rungs of the ladder. The self-development and growth related goals of the 19 to 35-year-olds seem to suggest that members of this age group were still battling with their identity formation (Erikson, 1963). When viewed against the backdrop of the prominence they gave to interpersonal relationships, it will appear that young adults in this sample were in the process of not only establishing their identity but also their independence. This appears to be in line with recent theories on adolescent development which emphasize the importance of identity formation, the peer group, and social interaction at that life stage. Surprisingly, however, our findings relate these issues to young adults not adolescents. On the other hand, the results appear consistent with the findings of Cross and Markus (1991) who found that young adults frequently mentioned goals related to personal topics. In the same vein Nurmi (1992) found evidence that indicated that young adults were most concerned about matters related to themselves and their friends. It would appear therefore that identity formation is the task of young adults rather than adolescents.

The other goals that concerned these young adults could be interpreted on the basis of their life stage. They expected to complete their education first. Those who, for one reason or the other, delayed their education were now feeling despondent about all the other life tasks of their age that they were yet to begin. Thus they mentioned fears related to these goals most often. We found such young adults being afraid of not getting married on time, being unable to bear children, or being a bad parents. They

now felt pressed to complete their education and get started on the occupational role after which they could now get married and start the business of raising a family of their own. It is only after the achievement of these normatively prescribed life goals will these young adults be ready to consider contributing their own quota to the advancement of their society. Of course, this depends on how much property they have been able to acquire in the interim. However, for the 19 to 35-year-olds the acquisition of material things seems to take on an added significance. In our society, as amply mentioned by many of our respondents, it seems that the acquisition of some minimum property to an extent determines one's ability to achieve the marriage status. Thus, in this age group the acquisition of material trappings of life may be a part of the settling down process. In sum, although both the adolescents and young adults appeared to be concerned with similar domains of life, the emphasis and meanings attached to each life domain differed in both groups. While the goals of adolescents were very dramatic and to some extent unrealistic, those of young adults were more concrete and realistic. This indicate that the latter generation were already taking steps to or were in the process of attaining their stated goals.

During middle adulthood, people appear to express less goals that indicate new beginnings or dramatic changes than the younger generations did. Their goal statements appear to indicate a desire for achievement in ongoing roles. They seem more concerned with the successful performance of the roles and responsibilities already begun. Thus, at this age, people no longer mentioned preparing to enter into a profession or starting a new

career. Rather the concern is with stability in such life domains that are of interest. It is not surprising therefore that the acquisition of property that would enhance this is given a lot of emphasis by this age group. The 36-to 49-year-olds having gotten a foot-hold on the career ladder, were concerned with climbing the rungs of the ladder and getting to the top. The same seems to apply to their educational goals. Every effort in the occupational and educational spheres appear to be towards further achievements and getting to the top rung of the ladder. Middle-aged people appear very concerned about the future of their children. Their interests have shifted from marriage to a concern with their children's progress in life. Although, some marital interest still exists, these are overtaken by other concerns such as career (both education and occupation) and property. Having settled into most of the roles expected of them, the middle aged now have time to meet the materialistic needs that will not only add to the stability of the current life styles but also aid in their plans for the future. Thus, although the two younger age groups gave some attention to retirement, the goals statements related to this life domain only began to gain concrete and realistic meanings among the 36-to 49-year-olds. Their retirement related goal statements took on the added indication of conscious planning toward a future phase of life. Thus, the middle aged mentioned what they intended to do at that future stage of the life-course, rather than the vague formless notions held by the younger age groups. On this score, it may be reasonable to assume that concrete actions and plans for the last phase of life begin at this age. Religious goals were given some measure of priority by the young adults and

the middle-aged. However, while religion accounted for about 5% of all the goals mentioned by young adults, it accounted for 7% of those of the middle-aged. This minor finding do not fit the hypotheses. On the basis of life-span theories (Havighurst, 1974) we expected that this life domain will be given more mention by the late adulthood respondents.

Late adulthood people's hopes frequently concerned the acquisition of property, their children's future, retirement, and occupation. On the other hand, their fears related to their children's future, their own health, their marriage and own family, and their ability to render social services. In the main, as was with the other age groups, the fears of the late adulthood respondents appear to reflect the hopes. In general, the fears expressed by our respondents appear to be a reflection of their concerns that their hopes may not materialize due to the occurrence(s) of their fears. The responses of the late adulthood people indicate a concern with maintenance and stability. Thus, although property rated very high in their future-oriented thoughts, the concern was mainly with the maintenance of those already acquired rather expanding acquisition. The same may be said to apply to their concern with their children's future. While the young adults were concerned with begetting and raising children and the middle-aged with training their children, the late adulthood people were interested in settling them into the roles of their age; such as marrying them out or getting them a job. These different concerns may reflect the relative ages of the children of members of these different ages. After all, someone aged 50 years would not now be thinking of bearing children.

We observed a general decrease in the number of goals mentioned

with advance in age. However, it would appear that some goals were given mention by all age groups and others were mentioned by only some age groups. Also, while the mention of goals related to most life domain did indeed decrease with advance in age, a few actually increased. Thus, for example, the mention of goals related to children's lives appear to start during young adulthood and to increase thereafter. The same was true of retirement related goals. Though people of all ages mentioned such goals the frequency of mention began to increase dramatically with advance in age. Not only did the frequency of mention increase the concreteness and realistic expression of the goals also increased. Health related goals is another case in this category. People of all age groups mentioned fears related to their own health, but such fears increased with advance in age. Also, the two younger age groups hardly mentioned hopes related to this life domain. On the other hand, health issues rated very high in the hopes of both the middle and late adulthood groups. A few other goals appeared to have a curvilinear relationship with age. These included religion and social services. Concern with religion appeared to reach its peak in middle age among this sample. Overall, the results were consistent with those found by Cameron *et al.*, (1977-78), Cross and Markus (1991), and Nurmi (1992) among American and European adults. These studies showed that future expectations and hoped-for possible selves of people concerned the normatively prescribed life-tasks of their own age and some of those of the next life stage. However, we do note that there were some cultural variations in the amount of prominence given each of these goals. A very

glaring example is the very low mention of leisure related goals even by the late adulthood people. Also, we found the mention of death to be most common among the younger age groups rather than persons in the late adulthood stage as would be expected on the basis of the results of these studies. These seemingly different rates of mention and description may be clarified by a cross-cultural investigation.

There was a linear decrease in the overall temporal extension of future-oriented goals in the sample. The older the respondents the shorter their overall future time span. In other words, the results supports the hypothesis of an increase in overall constricted time perspective with age (Lens & Gailley). On the other hand, they negate reports of either a curvilinear (Nuttin & Grommen, 1975) or zero relationships (Nurmi, 1992) between age and overall temporal extension of future orientation by earlier studies. The results indicate that younger persons view the future as a limitless space that is crowded by opportunities and options which they have ample time to explore, make mistakes and amend for such mistakes. Also most of their goals are still far away in time. There is no time pressure for them to achieve most of their goals as yet. Thus, while people of older ages would have started to experience some time and social constraints in their thoughts about the future, the adolescents have no such hindrances. They are therefore able to envisage a longer time span for the achievement of their life ambitions.

The results of the study also showed that age differences in the temporal extension of goals reflected the prescriptive time-table for age-related changes in normatively prescribed life-tasks. This would appear

consistent with the hypothesis of Neugarten *et al.* (1965) of a 'prescriptive time-table for the ordering of major life events' and Havighurst's (1974) assumption of 'age-related changes in developmental life tasks'. As was expected the hopes and fears of adolescents which related to their future education, marriage, occupation, property and travel extended farther into the future than those of all the other older age groups. Moreover, the temporal extension related to these and other life domains as extended family decreased linearly with advance in age. On the other hand, the projection of some other goals into the future tended to increase with age. These included temporal extensions related to children's lives. It was suggested earlier that this age-related variations in the temporal extensions of personal goals occurred because, as people grow older, the normative life events to which their goals refer approach in time. Nurmi (1992) has previously reported a similar pattern for young, middle, and late adulthood groups. As was also expected, the results further showed that the ages at which these decreases and increases begin varies from one domain of life to another.

In all, the pattern of results for age suggests that age differences in people's personal goals and the related temporal extension reflected the life-span theories of development (Hagestad & Neugarten, 1985; Havighurst, 1974; Mayer, 1986; Neugarten *et al.*, 1965). These theories propose such concepts as social age systems, age-graded developmental tasks, role transitions, social constraints and institutional careers in their descriptions of people's anticipation of what is possible, acceptable and desirable at

different ages. Some of these developmental life-tasks function as normative expectations, challenges, and sanctions that motivate people to set particular goals. Others operate as age differential opportunity structures that shape the options to which people have to adapt their personal goals. Thus, the knowledge that people have of their future is mediated by this socially prescribed life course. This indicate for the individual the ages at which each personal goal should be attained. Beyond such socially set limits people may be troubled if the set goals have not been realised. Thus, the results of this study are broadly consistent with Nurmi's (1989b) proposition that the extension of hopes and fears reflects "the cultural prototype" of anticipated life-span development. However, because culturally shared knowledge was not directly investigated in this study, there is an evident need for future research to incorporate this and the measurement of personal goals.

Members of the younger age groups in this sample indicated that they felt more capable of accomplishing or preventing their goals. By extension, they seem to believe that their fears were less likely to occur than members of the older age groups. Thus, the control beliefs of older adults concerning the future were more external than those of younger adults and adolescents. The adolescents seem to have some illusions about their ability to direct their own destiny. However, it would appear that as people grow older they also become more realistic in their control beliefs about the future. Some of the younger age groups' self confidence may be due to the lack of realism typical of adolescents and young adults (Weinstein, 1980). The configuration

of the hopes and fears described by the various age groups may have also contributed to these differences. When the changes in the contents of people's goal statements were considered, part of this age differences in people's overall perceived control of the future was found to be due to differences in the life domains of interest. Thus, while older adults showed concern with those life domains over which people generally think they have relatively little control, the younger age groups were more concerned with those domains over which people are thought to have a relatively high level of personal control. These findings appear to be consistent with the results obtained by others in this research area (Cross & Markus, 1991; Nurmi *et al.*, 1992).

Moreover, the results showed that the perceived personal control beliefs of hopes related to children's lives and retirement becomes more external with advance in age. On the other hand, those related to education, marriage, occupation and self tend to become more internal. Lachman (1986) and Nurmi *et al.* (1992) found similar results. In the same vein, it seems that people's thinking related to their fears is more variable. Most remain relatively unchanged with age. However, those related to children's lives still seem to become more external with advance in age. One explanation for these age differences in control beliefs may be that they reflect life span related changes in people's perceived opportunities to influence life outcomes. For example, young people may have a lot of power to influence their immediate life situation more than older persons in such domains as education, marriage and children's lives. This implies that with

age some aspects of life seem to become less controllable. Thus, for example, children grow up they become more independent of their parents, who will see them (the children) as less controllable. Furthermore, it would seem that older persons make more realistic appraisals than younger people. It is thus possible that as people's knowledge about and the experience of life and the living of it expand, they also acquire the ability to judge things that they can control and those that they cannot. One thing is certain from the present analysis. That is, older persons expected to be able to influence those life domains in which they extended into the nearer future; whereas they felt unable to control those which they saw as still far away in time. The same, of course, was true for younger people. It thus appears that the farther into the future goals were extended, the less personal control people felt they could exert on their realization or prevention. One possible explanation for this is that as the distance in time between the present and the future time increases the likelihood of any one goal significantly directing behaviour is reduced. Likewise, the increasing discrepancy between the current self and the envisaged self at that distant time in the future may make such goals appear extremely uncontrollable. Thus, the perceived ability to direct the course of such far distant events will be reduced.

The supposition that older persons will have a more positive outlook on the future could not be confirmed by the results of this study. Rather, adolescents' prospective affective appraisal of their future tended to be the most positive and those of the late adulthood persons the most negative. In essence, the present analysis suggests a negative relationship between age

and the affective tone dimension of future orientation. It would appear that the more personal control people attributed to the future-oriented goals the more positive their outlook on the future. Thus, since the younger age groups felt capable of personally influencing their major life outcomes they, in consequence, saw the future in positive terms. Another explanation could be the fact that the dissatisfaction with the current life situation had a differential effect on the future thinking of people on the basis of their age.

For instance, older people, in view of the negative circumstances in the country may not feel in full control of their goals. Secondly, the late adulthood people have become despondent and thus have begun to have a negative outlook on the future. The youngest age group, on the other hand, may have started to defensively elaborate a set of even more extreme hopes or possibilities and less threatening fears. They may believe that by achieving these projects or their many alternative sub-goals, their future lives would change for the better. They (the younger age groups) are thus able to reduce the discrepancy between their objective existential situation and their subjective appraisal of the future. This enables them have a more positive outlook, after convincing themselves that there is something to work and live for in the anticipated future.

In sum, the results of this study suggest a strong positive relationship between age and future orientation. It would appear that the younger the person, the more future oriented s/he tends to be. That is, young people are interested in many personal goals, extend such goals into the far distant future, feel capable of influencing the courses of such goals and are

consequently positive in their outlook on the future. At the other extreme, late adulthood people have few personal goals that have short future time spans which they feel incapable of accomplishing or preventing. Consequently, they tend to have a negative attitude towards the future.

5.3 GENDER DIFFERENCES

The results of this study showed that men and women did not differ markedly in the numbers of hopes and fears generated. However, as expected, there were evident gender differences in the sets of life domains of interest: females mentioned more frequently goals related to their own future education and own family and marriage than men. On the other hand, men expressed goals related to property, interpersonal relationships, health, religion, retirement and national affairs more often than women. Males thus appeared to have a wider range of interests. It is worthy of note that although females concentrated their concerns on only two major life domains, the males showed interest not only in their own future but also that of the nation. It may be suggested that since men have been more actively involved in the political developments of the country, this is reflected in their future thinking. Another explanation that might be suggested is that men constantly engage in and are stimulated to thinking about national matters due to current occurrences. Thus, while parts of the results fit traditional stereotypic gender role hypotheses and results of earlier studies on female and male life paths (Hagestad & Neugarten, 1985; Held, 1986; Uka, 1966) others obviously do not. Some of these latter groups are

however consistent with those reported by Nurmi (1991; 1992) on Finnish adolescents and adults.

The results showed that males were not more interested in work- and career-related goals than females as was expected. In contrast, women are still very much concerned with their own future family and marriage than men, indicating typical sex-role behaviour. The finding that men were not more interested in occupation than women appear to be contrary to results found in some Western societies (Monks, 1968; Lamm *et al.*, 1976) but consistent with Nurmi's (1989c; 1992) findings among Finnish adolescents and adults. The females in the present sample tended to put more emphasis on developing themselves through education and then settling down into marriage. The males, on the other hand, seems to be less concerned with traditional achievement or career-track goals (for example, education and occupation) and are more interested in exploring opportunities in the social and religious domains instead.

The major reason for these non-traditional sex-role gender differences may be the fact that a literate and enlightened population was used for this study. These are people who are aware of the importance of education in self-development. Thus, as against the earlier reluctance to educate women, this population may have begun encouraging their daughters to seek their development through education. This is then reflected in the high rate of interest shown by women in education in the sample. In addition, men appear to have begun to seek achievements outside the educational sphere. People may also have begun getting used to the fact that working outside

the home is becoming an essential part of the anticipated life-span development for the Nigerian woman. Of course, the surest way to get on to this developmental track is through education. Thus, as their males counterparts did some decades ago, females may now see education as a means of getting out from under and getting into the upper class through gainful employment. It is thus possible that there has been a rapid change in gender roles and related values toward equality during the last three decades since Uka's (1966) observations on this theme. It is also possible that the rapid changes in female involvement in education have expanded as the opportunities for doing so increased. Thus, females now have more chances of getting education than hitherto.

The results further showed that males tend to be more interested in the material aspects of life as was expected. Whereas, the women in this sample were concerned with developing themselves through education, the men were thinking of doing the same through the acquisition of properties (including owning enterprises and factories). These latter results are consistent with those of Gillispie and Allport (1955) who reported that more boys than girls desired wealth and Trommsdorff *et al.* (1978) who found that boys' hopes in the material domain were more structured than those of girls. These suggests that not only do traditional gender role stereotypic expectations influence males interest in this life domain, but also their knowledge about it. Due to their vast knowledge, they (the males) are able to generate several goal statements in the domain.

The results concerning the influence of gender on how far into the

future people's thinking extends were broadly consistent with our expectations and earlier findings (Nurmi, 1992). While there was only a tendency for the males to extend their overall hopes farther into the future, they significantly extended their fears into the more distant future than females. In addition more of the males life domains related goals extended farther into the future than those of the females. In sum, therefore, the results confirmed our expectations that women have a shorter future time span than men. These results appear contrary to the results obtained by Nurmi among Finnish adults. Nonetheless, they fit well into Hagestad and Neugarten's (1985) proposal that the perceived age boundaries for the different life stages are shorter for women than for men. In the present sample, women expected their goals related to most of the life domain except education to actualize earlier than men did. These gender differences appear to be due to the contents of the life domains that interested males and females. Thus, the women's shorter time span may be due to the fact that they have more sex-typed goals such as getting married and having a lower level of education where the realization time is objectively situated in the more immediate future. By way of contrast, the contents of the goals men have (for example, property, retirement and national affairs), have an objective longer time span. Lamm *et al.* (1976) found that, although girls were interested in occupational goals, their thinking concerned goals that extended into the nearer future compared with boys. Thus, even when women are concerned with the same goals as men, their interests center around those sub-goals that can be realized in the shorter time span. These

sex differences may reflect realistic anticipations because women tend to be expected to get married and settle into family life earlier than men. This primacy of marriage in the life-span developmental anticipations of women might make them to project most of their goals into the nearer future. Thus, while the males may be more apprehensive of the near future and therefore direct much attention to the distant future, females may be more concerned about the immediate and near future because the more distant future is foreboding due to the contents of their goals which centre around marriage.

These interpretations appear in consonance with recent findings which show that men and women see the major transitions in their lives differently (Hagestad & Neugarten, 1985; Held, 1986). These suggest that family appear to be the main force shaping the course of women's lives, whereas work (in this case, property and materialism) is the key influence in men's lives. According to Elder and MacInnis (1983) marriage and own family thoughts are always in the shorter time track in women's minds. Thus, since they date the occurrences of their other goals relative to this prime motivating force in their lives, women tend to have a short future time span.

Gender related differences were also found in the perceived personal control beliefs about the future. The results were however in the opposite direction to our assumption. It was suggested that men would see the future as more controllable than women. The results of the analyses on the other hand, indicated that women believed they were more capable of influencing their future than men did. As noted earlier, the more extended the mentioned goals were, the less control people felt they could exert on their realization

or prevention. Thus, since the women's goals were in the more immediate future they may feel more capable of influencing their courses than those still far away in time.

The expectation that women's affective outlook on the future is more negative than those of men was not confirmed by the data of this study. Rather, it appears that the reverse is the case. That is, women are more positive in their outlook on the future than men. This result is generally in line with our other findings. It would appear that the more the extension, the less the perceived control and the less positive the prospective affective appraisal of the future. Thus, the original suppositions on which this hypothesis was based appear faulty. Nonetheless, there is need for an investigation that would directly assess the linkages among these dimensions of future orientation.

In brief, the results of this study suggests that men have a wider range of interests which translated into their having more goals than women. However, these various goals were seen by the men as still in the distant future. They therefore felt incapable of accomplishing or preventing them. Consequently they had a less positive outlook on the future than women. On the other hand, the women concerned themselves with a few goals in the shorter future time span. Thus, they were able to attribute personal control on the achievement or prevention of the goals and were therefore looking forward to the future optimistically.

5.4 EDUCATIONAL STATUS DIFFERENCES

The results of the analysis indicate a strong relationship between educational status and future orientation. However, the pattern of results is generally inconsistent with our expectations and previous research in the area (Nurmi, 1992). Whereas Nurmi (1992) found only minor differences in people's personal goals and related temporal extensions according to level of education, the results of this study suggest that such educational status differences may be more extensive. However, while people with lower levels of education generated more hopes, those with higher levels of education mentioned more fears. The hopes of people with secondary education related most often to education, occupation, property and travel, while their fears related to only education and travel. For those with tertiary education hopes related most often to children's lives, religion, retirement, self-growth and development, and social services, while their fears related to retirement, self-growth and development, social services and national affairs. The interpretation of this obtained educational status differences is difficult. One way of understanding them is to take cognizance of the strong relationship between age and educational status in this sample. As noted earlier, the majority of the adolescents were at the secondary level of education while the young, middle and late adulthood groups belonged in the tertiary level. It is thus possible that this age and educational status interaction accounted for most of the observed differences here. Indeed, when the effects of age were partialled out, most of these differences were either negligible or not significant. When this is taken into account, it would appear that there are

only minor educational status differences in people's future-oriented personal goals and the related temporal extension as reported previously by Nurmi (1992). Such differences showed up in the frequency of mention of education-, children's lives-, self-, and social services-related hopes. Educational status difference was then only found for education- and retirement-related fears. Due to the fact that people at the secondary level of education still had many educational goals to achieve, it is not surprising that they were more concerned with this domain of life than those with tertiary education. Most of the latter group had in fact gone through the education ladder at the time of the study. The higher the level of education the more people seem to be concerned with self- and social services-related issues. One possible explanation for this is that people with a high level of education have occupational positions which encourage them to invest more in self-development. They may also have more choice in this life domain than people with a low level of education. It thus appears that the educational status differences found here can be explained by the normatively prescribed social age systems (Havighurst, 1974; Neugarten *et al.*, 1965).

Moreover, in line with the prescribed time table for the ordering of major life events, people with lower education extended both their hopes and fears farther into the future than those with tertiary education. In the main, the differences found seem accounted for by the strong correlation between age and educational status as noted above. Thus, adolescents in secondary school extend their goals related to those life domains not of their own age farther into the future than those of their own age. The same

explanation may be applicable to the perceived personal control differences obtained here. The results showed that people with secondary education felt capable of influencing their destiny more than those with tertiary education did. While some of the self-confidence of those with lower education may be due to the lack of realism typical of young people (Weinstein, 1980), the less perceived personal control of those with tertiary education may be a realistic appraisal of most of their past and current goals. As may be expected, following on from the above explanations, adolescents in secondary school had a more positive outlook on the future than people with higher levels of education. In all, the results are in the opposite directions to those predicted on the basis of our theoretical framework. It would appear that those assumptions failed to consider the possible covariation of age and educational status. Perhaps an investigation that would ensure that all levels of education with adequate age spread will throw more light on these issues.

5.5 PERSONALITY DIFFERENCES

The results also showed minor differences in people's personal goals and the related temporal extension, causal attributions and affective tone according to personal disposition. The strength of the relationships between personal disposition and future orientation and the dispositional differences obtained were rather weak and seem accounted for by the covariation of this variable with the control variables. For example, when the effects of these other variables were partialled out of the personal disposition differences in temporal extension and perceived personal control the variance accounted

for by personal disposition become so negligible as to fail to reach conventional levels of significance. It should be noted, however, that these other independent variables did not cancel out the effects of personal disposition on the frequency of mention of the few life domains in which differences were found. Thus while the optimists mentioned more marriage- and religion-related hopes, the pessimists mentioned more property-related hopes. On the other hand, pessimists appeared to mention more fears than optimists. They significantly mentioned more fears related to health, occupation, and property than optimists, whereas the latter mentioned more fears related to children's lives, health, occupation, and property than them. Thus, although no definitive statements can be made on the relationships found, it would appear that optimists mention more hopes than fears and the pessimists more fears than hopes. This would be consistent with our suppositions to this effect. Findings with respect to the future time span, causal attributions and affects related to the mentioned future-oriented goals according to personal disposition were less clear cut. While there was no dispositional differences in the overall extension of fears, pessimists significantly extended their overall and three domain-specific hopes farther into the future than optimists. In like manner, while both groups did not differ in their perceived personal control of fears, the pessimists indicated an ability to exert some control on the occurrence of their hopes. Finally, the optimists had the more positive outlook on the future than pessimists. In sum, it seems that optimists mentioned more hopes than fears, extended their personal goals (mainly hopes) into the more distant future, felt less

capable of influencing the occurrence or prevention of their goals, and had a positive outlook on the future. On the other hand, the pessimists mentioned more fears than hopes, extended these fears into the immediate future, expected to be able to exert personal control on the occurrence or prevention of their goals, but had a negative outlook on the future. These findings may be explained on the basis of the theoretical formulation that views optimism as a generalized expectancies of good outcomes (Markus & Nurius, 1986; Scheier & Carver, 1985).

In this conceptualization optimists are seen as people who tend to hold positive expectancies for their future; pessimists are people who tend to hold more negative expectancies for the future. Thus, the construct incorporates a strong sense of future-orientedness of goals and related attributes. Perhaps optimists are better able than pessimists to generate effective goals and sub-goals that maintain their sense of optimism over time. They are thus able to generate more hopes and have a positive attitude towards the future. However, contrary to our expectations based on the theory, optimists were more external in their control beliefs than pessimists. It thus appears that people's (or at least some of them) sense of optimism derive from external rather than internal control beliefs. For example, people could be optimistic because of their belief in a benign provider. Indeed, it is noteworthy that optimists showed more concern with religion related themes (both hopes and fears) than pessimists. In all, although the evidence is rather weak, the results suggest divergent future thinking partly due to people's personal disposition. However, it appears that more intrapersonal variables

need to be explored in order to understand the relationship between personality and future orientation.

This phase of the analyses also examined the correspondence between two different measures of future oriented thought. We distinguished between situational and dispositional aspects of future thought. The first is the general preoccupation with the future which we referred to as future orientation as measured by the FPQ. The second aspect was referred to here as dispositional orientation to the future - a habitual openness and responsiveness to the future - as measured by the LOT. The results obtained would seem to indicate some degree of overlap between these two constructs and measures. At the same time, the overlap was far from perfect: the magnitude of correlations between the LOT and the dimensions of future orientation, though significant, were all rather low. Thus, there appears to be enough independence to warrant a claim of the distinction between these two constructs. While we may say that the two measures tap completely distinct aspects of personality, it appears that what a person is concerned with (future-oriented personal goals) is related to what s/he typically does (dispositional optimism). This correspondence or lack of it between two types of motive systems may be an important individual difference variable worthy of further investigation.

5.6 RELIGIOSITY DIFFERENCES

The pattern of results for religiosity is generally inconsistent with our expectations based on previous research and theory in the area. In fact we

found no relationships between this variable and the dimensions of future-orientation. Furthermore, only minor differences in people's personal goals and the related extension, control beliefs and affect according to religiosity were found. Even the few differences obtained seem due to the covariation of religiosity with the independent and other control variables. Nonetheless, it is worthy of note that religiosity related most consistently with the domain of life labelled religion. Religiosity, as was expected, predicted the frequency of mention of religion-related goals, with the deeply religious showing more interest in such goals than the superficially religious. While the latter group extended their few religion-related goals into the distant future, the deeply religious projected such goals into the more immediate future. Finally, the deeply religious felt more capable of accomplishing and preventing their goals in this domain of life. Consequently, they were able to have a positive attitude towards the future.

One possible interpretation of these results is that the superficially religious are postponing their becoming religiously committed indefinitely or at least into the very distant future. For example, one respondent indicated the hope of giving her life to God at the age of 35 years (which was approximately 15 years from the time of study). The deeply religious may have many short-term religious goals (that may actually be working on already - for instance "making heaven"). Goals which they are sure they are capable of accomplishing or preventing on the basis of their strong religious beliefs. The superficially religious have few religion-related goals that they are still trying to define and work out. They thus believe that they have time

to come to terms with their religious obligations. Time enough to become religiously committed. Hence the few goals they mention in this life domain may represent major turning points in their lives. They are decisions to be taken at some distant point in the future. It is not surprising, therefore, that they are not sure whether they can accomplish or prevent such goals.

It is also possible that religiosity is a personality characteristic that directs people's actions and thoughts. If this is the case, people with a high degree of this attribute may be very concerned about their religious commitment. This concern would normally be reflected in the future orientation. It would not be surprising therefore when such persons mention a large number of religion-related goals. Since they are constantly working on such goals they would see them as being in the open present. This may explain why the deeply religious projected their religion-related goals into the immediate future. Furthermore, their religious commitment imbues them with the notion that outcomes in this domain of life is within their control. They thus feel capable of accomplishing or preventing such goals. Also, the assurance deriving from their beliefs enables them to look toward the future optimistically.

In sum, the results of this study indicate that deeply religious people tend to have more goals, extend such goals into the immediate future and believe they have the ability to influence the occurrence of such goals. Consequently, they have a more positive outlook on the future than the superficially religious.

CHAPTER SIX

CONCLUSION

This was a first attempt to chart the relationship of future-orientation to dispositional and demographic variables. The study was designed to answer three interrelated questions: (1) *How far ahead in time do people look to for the fulfilments of their life ambitions?* (2) *What are the major concerns Nigerians think will occupy them at future ages?* and (3) *What influence does dispositional and demographic variables have on people's conceptions of the future?* These questions were aimed at finding out the extent to which the current existential conditions has affected the psychological functioning of Nigerians, particularly their awareness of the importance of the future to current behaviour.

In our introduction and review of the literature, we defined and analyzed future thought into two different aspects. The first of these we referred to as future-orientation - a general preoccupation with the future that can be affected by contextual factors. Future orientation as analyzed here has several dimensions. Of these, this study concentrated on the thematic content, temporal extension, perceived control and affective tone components. The second aspect of future thought dealt with was referred to here as dispositional optimism and defined as the habitual openness and responsiveness to their future. This dispositional orientation to the future was assumed to be a quasi-stable personality characteristic. From the review of the extant literature (both research and theory) in the area, we attempted

a theoretical framework that linked the dimensions of future orientation to each other and to other variables of interest in meaningful and predictive ways. From this framework we derived five major hypotheses, each being a statement relating future orientation to one of the independent variables. These variables were personal disposition, religiosity, age, gender, and educational status. Since these major hypotheses were by necessity very broad, they were broken down into subsidiary hypotheses that related the dimensions of future orientation individually to each of the independent variables and their different levels.

To test these suppositions a cross-sectional survey in which three principal self-report paper-and-pencil scales were administered on over 700 respondents was conducted. The sample, whose age ranged between 13 and 56 years, was made up of three distinct groups: high school students (114 males and 121 females), undergraduates (148 males and 153 females), and workers (116 males and 72 females). These respondents were selected by means of the convenient-purposive sampling technique. This procedure ensured that the different demographic variables of interest were adequately assessed.

The research protocol was made up of several paper-and-pencil scales. Four of these constituted the research questionnaires. The first of these, labelled personal data form, consisted of items aimed at collecting information on the demographic characteristics of the respondents. These demographic variables - age, gender and educational status were control independent variables in this study. The second and third sections of the

protocol consisted of items of the Future Possibilities Questionnaire (FPQ) the measure of future orientation which is the dependent variable under investigation. This mixed idiographic - nomothetic, loosely structured and open-ended free-response questionnaire had two subscales. One of these, the FPQ-H was used to assess respondents' hopes and the other, the FPQ-F assessed their fears for the future. The Life Orientation Test (LOT) and the Religious Orientation Test (ROT), both of which are Likert-type scales, measured dispositional variables - dispositional optimism and religiosity, respectively. A coding manual was drawn up for scoring the qualitative data collected by means of the open-ended items on the FPQ. Several indices of reliability and validity conducted in the course of the study indicated that these scales possessed adequate psychometric properties that justified their inclusion in the study. The data collected were subjected to a host of statistical manipulations which included percentage. Count and analyses, Pearson's Product Moment Correlation, Student's t-test, One-way and Multivariate Analyses of Variance and Regression Analysis. These statistical analyses were carried out by means of SPSS PC+ Version 4.01 version programmes.

The five major hypotheses as well as their subsidiary propositions were all tested at the conventional (.05 or lower) levels of statistical significance. However, in presenting and discussing the results of the analyses, we sought first, in preliminary sections, to highlight the general nature of the future orientation of Nigerians. These sections provided answers to our major research questions. The results indicated that:

1. Despite their constraining existential conditions Nigerians seem to have more hopes than fears for the future.
 - (a) The respondents generated significantly more hope (7) than fear (3) statements.
 - (b) These goal statements could easily be classified into 4 and 3 life domains, respectively.
 - (c) When the life domains were ranked according to their frequency of mention, it was found that goals most dominant in the future-oriented thoughts of Nigerians relate most often to education, marriage, property and occupation.
 - (d) However, while the order of importance of hopes remained the same as above, the fears related most often to marriage, education, own health and national affairs, in that order.
2. Compared with people from Euro-American societies, Nigerians appear to have a long future time span.
 - (a) On the average, hopes were projected 9 years and fears 7 years into the future. Thus, hopes were significantly projected into the more distant future.
 - (c) Interestingly, most of the fears mentioned by the respondents were viewed as being in the open present.
3. The perceived control beliefs of Nigerians regarding their future outcomes appear to be in the mid-range. That is, the respondents did not feel fully in control of their own destiny. However, while they felt they were capable of accomplishing most of their goals through

personal efforts, they at the same time believed they were incapable of preventing most of their fears.

4. Nigerians, despite their current unfavourable existential conditions, have a very positive outlook on their personal future.

Further analyses showed that the dimensions of future orientation was differentially influenced by the demographic and dispositional variables.

These showed that:

1. That optimists were not more concerned with the future than pessimists. However, some minor dispositional optimism differences were found. These implied that:
 - (a) Optimists mention significantly more hopes than fears, whereas the pessimists mention more fears than hopes.
 - (b) Optimists tended to extend their goals into the more immediate future than pessimists.
 - (c) Pessimists perceived the future as personally controllable significantly more than the optimists.
 - (d) Optimists and pessimists did not differ in their outlook on the future.
2. The deeply religious did not express more concern with the future than the superficially religious. Some minor religiosity influence on future orientation were however noted. These are:
 - (a) The superficially religious generated significantly more fears than the deeply religious.
 - (b) The deeply religious mentioned religion-related goals (both

hopes and fears) significantly more than the superficially religious.

- (c) The superficially religious tended to extend their goals into the more distant future than the deeply religious.
 - (d) The deeply religious appear to anticipate more personal control over future outcomes than the superficially religious.
 - (e) The deeply religious had a more positive outlook on the future than the superficially religious.
3. Males were not significantly more concerned with the future than females. However, results obtained here were mixed and indicated that:
- (a) Males mentioned more hopes than females. Furthermore, the males appear to have wider interests than females. However, the expected traditional sex-role stereotypic interests was not confirmed, although females mentioned more own marriage and family related goals.
 - (b) While there were no gender difference in the extension of hopes, men expected their fears to occur later in the future than females. In all, it appeared that women have a short future time span.
 - (c) While there were no gender difference in the perceived personal control of hopes, women anticipated that they will be able to prevent the occurrence of their fears. All the analyses indicated that women felt more capable of accomplishing and

preventing their goals than men.

(d) Women had a significantly more positive outlook on the future than men.

4. Older persons expressed significantly less concern with the future than younger persons. This implied that:

(a) Across age groups significantly fewer goals were generated with advance in age. Thus, there was a significant negative relationship between age and the number of goals mentioned.

(b) The temporal extension of goals decreased linearly with advance in age. Older persons significantly extend their goals into the near future more often than younger persons.

(c) Older people significantly perceived their future to be less personally controllable than younger persons. That is, the perceived capability to direct the accomplishment or prevention of goals decreased linearly with advance in age.

(d) The younger the respondent the more positive their outlook on the future.

5. Highly educated persons were not more concerned with the future than less educated persons. However, some educational status differences were found. These indicated that:

(a) People with secondary education generated more goals than those with tertiary education. However, while the former generated significantly more hopes, there was no statistical significant difference in the mention of fears according to

educational status.

- (b) The higher the level of education the shorter people's future time span. People with secondary education extended their goals farther into the future than did those with tertiary education.
- (c) People with lower level of education felt significantly more capable of directing the course of future events. Respondents with secondary education anticipated more personal control over their future-oriented goals.
- (d) The lower the level of education the more positive the outlook on the future. Respondents with secondary education had a significantly more positive outlook on the future than those with tertiary education.

In all, the result suggests that the more the hopes generated, the longer the future time span. The farther into the future goals were extended, the less people believed they were capable of accomplishing or preventing them. The less personal influence people felt they could exert on the occurrence of their goals, the less positive their outlook on the future. Furthermore, as the anticipated future approach in time the sense of personal control and hopefulness increases.

6.1 RESEARCH AND APPLIED IMPLICATIONS

The sampling procedure ensured that the sample studied was a fair replica of the population from which it was drawn. However, the use of only

literate people involved in tertiary education from one of the major ethnic groups in the country may have affected the results of this study. The Yorubas are known to be very interested in education. It may be argued that this was responsible for the high prominence given educational goals by the respondents. It is therefore hoped that future research will include a more diverse population with an adequate national coverage. In the same vein some other variables like ethnicity and socio-economic status might also be investigated as possible intervening variables in the relationship between personality and future-orientation. There is also the need to refine the definition and measurement of the two principal variables involved in this study. For example, the construct identified here as habitual openness and responsiveness to the future (or dispositional orientation toward the future) may not really equate with dispositional optimism that was used to measure it. It may also be more fruitful to extend the measurement of future-orientation to include the evaluation of the generated goals along several dimensions such as importance, reality, desirability, conflict, and so on. In sum, therefore, the findings of this study cannot be taken as conclusive. More studies along the lines suggested just above and in our discussion are required for an adequate understanding of these concepts. Moreover, there is a potential for the use of the procedure employed in this study for the longitudinal study of human development in terms of people's evolving systems of personal goals.

Since the plans people have for the future is a dynamic aspect of their motivation, understanding their origins and progression would enable us

better explain and predict human behaviour. Particularly at a time of rapid social change and transition, a procedure that would highlight how the organization of people's activities and proprieties shift and change would be useful. Such a measure would help in examining a person's full set of complex (and perhaps contradictory) goals and fears and potential behaviour patterns that would be of use in academic and career counselling. Also the very process of verbalizing one's goals and the related attributions and evaluations might be helpful in clarifying self-direction and raising motivation. By thus clarifying what one's future thoughts are, one will be able to think of ways to improve all facets of one's life and achieve all of one's aims in life. In adults approaching retirement, high valence goals that have been dormant because they seemed impossible may provide a potential source of new meaning in a retiree's life. On the other hand, the loss of occupation (work) related goals may leave such a person with a very empty future. Thus, the findings here has implications not only for educational and career counselling, but also for retirement counselling.

The findings indicate that the creation of an enabling environment that would enable people believe that they have a future to live in and work for would not only enhance their mental health but also their productivity. The debilitating ever present fear that characterizes the current existential conditions of Nigerians has dimmed their hope for the future. Indeed, Erikson and Post (1975) found that psychiatric patients who placed high importance on goals that they had little hope of achieving were more prone to depression. Thus, psychotherapeutic procedures that promote self-direction,

self-control and self-fulfillment may be more successfully employed with Nigerian patients at this time. It is acknowledged that most psychotherapy methods usually involve not only the retrospective repair of past damage but also the prospective planning of how the person will live in the future. There is the need to understand the goals and fears that engage people's future-oriented thoughts to be able to plan their future adjustments.

Furthermore, the findings of this study can well serve as guides for theory, research, and practice in several areas of psychology. For example, it is apparent that times of rapid change can too easily turn fear and worries into distrust and isolation. The unpredictability and uncontrollability of the future results in people being afraid even of their present. This causes a lot of anxiety and depression. It thus appears that a vision for one's future is the single most predictive indicator of success and happiness. The absence of this vision gives rise to a philosophical malaise and meaninglessness in people's lives. This coupled with the economic downturn make people feel compelled to work long hours. As a result, they spend less time on leisure and with their families. Another possible consequence is a rise in the incidence of work-related stress and stress related health problems. Moreover, people get caught up in chasing the materialistic dream. A notoriously empty lifestyle focused on wealth and material possessions is the underlying factor to most of our societal ills. The challenge for psychology and its practitioners is to customize the concept of change to fit individual goals and needs. Counsellors and career experts must be equipped to help people deal with all of the many issues involved in getting a positive vision

for the future.

There are indications from the findings that all psychology in Nigeria should be viewed with one factor in mind: the nature of the Nigerian soul. We found here that despite the constricting existential situation Nigerians are still hopeful and optimistic about their future. There seems to be nothing in anybody's behavioural theory to provide an explanation for this type of hopefulness. It appears that a traditional resilience and endurance coupled with faith in the generative force of life itself might provide a possible basis for explanation. Future research should examine these assumptions and expand our knowledge on the way Nigerian think about their existential situation.

The findings also indicate that some changes in the human life course are so predictable and regular that they have become cultural icons. These are normal transition points in everyone's life. However, some other such changes do not even have proper names. For example, the transitions from high school to university, the university to the world of work, and the pre-retirement period have not been well demarcated neither have the developmental task of these periods been well documented in the human development literature. There is an obvious need for more research in this area.

While it is important to learn more about and understand the nature of changes in the human life span, we should begin to address the psychological and social issues associated with these changes. For example, the results of this study points to the fact that young people have poorly

formed notions of the careers they can go into. Thus, young people looking for jobs apparently have no clue about what they have to offer to the world. This calls for programmes that would help young people with career decisions and life planning. As the findings of this study indicates, a successful career decision should take into account abilities, personality, personal life goals and stage of development.

^e When exploring the relationship between future orientation and religion, it is important to focus on the type of religious expression people choose. Certain types of religious expression seem helpful and others harmful to future orientation. The difference is that some forms of religious expression and belief typically puts responsibility in the hands of God; a belief nearly impossible to reconcile with psychology's emphasis on personal responsibility. Thus, there is the need for more studies on the relationship of religion and future orientation. Perhaps if religion, instead of religiosity had been employed in this study, the findings might have been different. It is suggested that future research should look more closely at this issue and also try to address the question of which is more predictive of future orientation - religious belief or religious expression.

Two pieces findings from this study indicate a strong relationship between education and future orientation. The first is the high rate of mention of educational goals. The other is the minor contribution of the respondents' educational status to the mention of such goals. It appears that this is a direct effect of the sample studied. The sample was drawn from a literate population that is involved in the educational industry. Apart from

this, the site of study itself, outside of being a university community, is situated in the southwestern part of Nigeria; a region noted for its high interest in education and educational goals. There are other parts of the country where this is not quite so. Thus, to increase confidence in the findings reported here, independent replications in different populations and parts of the country are needed.

It appears that there is a disharmony between the perceptions of students and educators about standard of education in this country. Rather than a falling standard, it would appear that today's students are bringing to the classrooms a set of experiences and expectations quite unlike those of earlier eras. Thus, it is not only the changing demographics alone that is affecting the educational standard. Differences in learning styles, in preparation, in educational needs and in the conceptions of the purposes of education all should give educators a pause. There is the need to think carefully and act creatively about what and how we teach, the types of knowledge and skill to impart. For instance, a university degree is fast becoming a necessary rather than a sufficient education credential for employment. Just a reliable measure of an individual's job readiness. This linkage between the certificate and the workplace will create an environment in which students will exert pressure on our institutions to provide them skills that demonstrably pay off in the job market. Thus, the contents of the various professional knowledge and skills imparted by our institutions should be broadened and made pertinent to the rapidly changing market. There should be periodic reviews and revisions of subjects and curriculums from

the high school up to tertiary institutions.

The findings suggest that children are a major source of well-being and satisfaction for their parents during the middle and late adulthood phases of life. It appears that the self-evaluation process that occurs at these stages of life may lead to self-satisfaction and contentment for those parents whose children turn out to be successes in any sphere of endeavour. Thus, the extent to which middle aged and late adulthood parents see themselves as responsible for their children's successes influences their satisfaction with life and their sense of control. The greater the sense of responsibility for a child's success, the better the parent feels. Such parents might be more future oriented. Another direction for future research would be to examine whether parents are conscious of this phenomenon.

The prominence given retirement goals by the middle and late adulthood groups seems to imply that the psychological realities of retirement should be made more explicit. We need to learn more about and understand the nature of retirement. Such studies should be able to point to the most promising avenue of policy intervention to improve people's well-being and life satisfaction during retirement. While such studies are still being awaited, we need to begin to address the psychosocial issues associated with retirement. Prevention of serious mental problems at this phase of life should include coordinated social, behavioural and medical interventions. Such a psycho-educational approach will emphasize mental health instead of mental illness. Retiring people should learn about good nutrition, and how to keep physically and mentally active by participating in

community and parochial activities. Younger persons should develop a well-rounded lifestyle so that when retirement age approaches they can relinquish the work role. This might involve the building of hobbies or other interest into their daily lives and should be able to take time off their jobs. People should learn to take leisure more seriously. Also, programmes that will help older adults deal with separation and abandonment before it becomes depression are needed. All these call for an increase in the support for and an improvement in the national pension and retirement policy.

CODESRIA - LIBRARY

REFERENCES

- Aderinto, J.A. (1989). "Nigerian undergraduates perception of developmental tasks." *Nigerian Journal of Counselling and Development*, 4, 21-31.
- Aderinto, J.A. (1990). "Aging and educational aspirations among literate Nigerian adults: Implications for Counselling." *Nigerian Journal of Counselling and Development*, 5, 1-7.
- Agarwal, A. & Tripathi, K.K. (1980). "Time perspective in achievement motivation." *Psychologia: An International Journal of Psychology in the Orient*, 23, 50-62.
- Agarwal, A., Tripathi, K.K. & Strivastava, M. (1983). "Social roots and psychological implications of time perspective." *International Journal of Psychology*, 18, 367-380.
- Ake, C. (1993). "The Future in Perspective". *National Concord*, June 19, p. 3.
- Akinboye, J.A. (1985). *Nigerian adolescent behavioural pattern and guidance counselling*. Ibadan: Les Shyraden.
- Allport, G.W. (1959). "Religion and Prejudice". *Crane Review*, 2, 1-10.
- Allport, G. (1968). *Patterns and growth in Personality*. New York: Holt, Rinehart & Winston.
- Amarægbu, P. (1995). "When Hope is Dim". *The Guardian*, Sunday, October 15, p. B9.

- Atkinson, J.W. & Birch, D. (1978). *An introduction to motivation (rev. ed.)*, New York: Van Nostrand.
- Awaritefe, A. (1982). "Awaritefe Psychological Index" *Nigerian Journal of Clinical Psychology*, 1, 42-51.
- Bandura, A. (1986). *Social foundation of thought and action*. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A. & Simon, K.M. (1977). "The role of proximal intentions in self-regulation of refractory behaviour." *Cognitive Theory and Research*, 1, 177-193.
- Bar-Tal, P. & Bar-Zoher, Y. (1977). "The relationship between perception of locus of control and academic achievement". *Contemporary Educational Psychology*, 2, 181-199.
- Battista, J. & Almond, R. (1973). "The development of meaning in life". *Psychiatry*, 36,409-427.
- Baumeister, R.F. (1990). "Suicide as escape from self". *Psychological Review*, 97, 90-113.
- Beck, A.T., Weissman, H.W., Lester, D. & Trexler, L. (1974). "The assessment of pessimism: The hopelessness scale." *Journal of Consulting and Clinical Psychology*, 42, 861-865.
- Bentley, A.M. (1983). "Personal and global futurity in Scottish and Swazi students." *Journal of Social Psychology*, 12, 223-229.
- Bergin, A. (1991). "Values and religious issues in psychotherapy and mental health". *American Psychologist*, 46, 394-403.

- Blasi, M.R., Vallerand, R.J., Briere, N.M. & Pellener, L.G. (1989). *Motivational Styles in interpersonal domain: Nature, determinants and consequences*. Montreal: Universite du Quebec a Montreal.
- Boniecki, G.J. (1977). "Is man interested in his future? The psychological question of our time". *International Journal of Psychology*, 12, 59-64.
- Boniecki, G.J. (1980). "What are the limits of Man's time and space perspective? Toward a definition of a realistic planning horizon." *Technology Forecast and Social Change*, 17, 161-175.
- Borenstein, M.T. (1982). "Religious orientation and moral development". *Dissertation Abstract International*, 43 (7-B) 2386.
- Bouffard, L., Lens, W. & Nuttin, J.R. (1983). "Extension of future time perspective as a function of frustration" (English abstract). *International Journal of Psychology*, 18, 429-442.
- Bradburn, N.M. (1969). *The structure of psychological well-being*. Chicago: Aldine.
- Brandstadler, J. (1984). "Personal and social control over development: some implications of an action perspective in life-span developmental psychology". In P.B. Baltes & O.G. Brim (Eds.), *Life-span development and behaviour* (Vol. 6, pp. 1-32). San Diego, CA: Academic Press.
- Broom, L. & Selznick, P. (1977). *Sociology: A text with adapted readings* (6th ed.). New York: Harper & Row.
- Burger, J.M. (1984). "Desire for control, locus of control, and proneness to depression". *Journal of Personality*, 52, 71-89.

Cameron, P. (1972). "The generation gap: Time orientation". *The Gerontologist*, 12, 117-119.

Cameron, P., Desai, K.G., Bahador, D. & Dremel, G. (1977-78). "Temporality across the life-span." *International Journal of Aging and Human Development*, 8, 229-259.

Campbell, M.L. (1981). "A psychological study of personal religion: Theoretical and empirical investigations". *Dissertation Abstract International*, 42 (2-B) 741.

Campbell, M.L., Converse, P.E. & Rodgers, W.L. (1976). *The quality of American life*. New York: McGraw-Hill.

Cantor, N. (1990). "From thought to behaviour: 'Having' and 'doing' in the study of personality and cognition." *American Psychologist*, 45, 735-750.

Cantor, N. & Kihlstrom, J.F. (1987). *Personality and Social Intelligence*. Englewood Cliffs, N.J.: Prentice-Hall.

Cantor, N. & Norem, J. (1989). "Defensive pessimism and stress and coping." *Social Cognition*, 7, 92-112.

Cantor, N., Markus, H., Niedenthal, P. & Nurius, P. (1986). "On Motivation and the Self-Concept" In R.M. Sorrentino & E.T. Higgins (eds.), *Motivation and Cognition: Foundations of Social Behaviour* (pp. 26-211). New York: Guilford Press.

Cantor, N., Norem, J., Niedenthal, P., Langston, C. & Brower, A. (1987). "Life-tasks, self-concept ideals and cognitive strategies in a life transition." *Journal of Personality and Social Psychology*, 53, 1178-

- Cantor, N., Norem, J. Langston, C., Zirkel, S., Fleeson, W. & Cook-Flannagan, C.C. (1991). "Life tasks and daily life experiences". *Journal of Personality*, 29, 425-451.
- Cantril, H. (1965). *The Pattern of Human Concerns*. New Brunswick, New Jersey: Rutgers University Press.
- Carver, C.S. & Scheier, M.F. (1981). *Attention and Self-Regulation: A control-theory approach to human behaviour*. New York: Springer-Verlag.
- Carver, C.S. & Scheier, M.F. (1982). "Control theory: A useful conceptual framework for personality, social, clinical and health psychology." *Psychological Bulletin*, 92, 111-135.
- Carver, C.S. & Scheier, M.F. (1983). "A control theory approach to human behaviour and implications for problems in self-management". *Advances in Cognitive Behaviour Research and Therapy*, 2, 127-193.
- Carver, C.S. & Scheier, M.F. (1990). "Principles of self-regulation: Action and emotion." In E.T. Higgins & R.M. Sorrentino (Eds.), *Handbook of Motivation and Cognition: Foundations of Social Behaviour* (Vol. 2), New York: Guilford Press.
- Chickering, A.W. & Havighurst, R.J. (1981). *The life circle: The Modern American College*. San Francisco: Jossey-Bass.
- Chivian, E., Mack, J.E., Waletzky, J.P., Lazaroff, C., Doctor, R. & Goldenring, J.M. (1985). "Soviet children and the threat of nuclear war: A preliminary study." *American Journal of Orthopsychiatry*, 55,

Cohen, J. (1960). "A coefficient agreement for nominal scales." *Educational and Psychological Measurement*, 20, 37-46.

Cooley, C.H. (1964). *Human nature and the social order*. New York: Schocken Books.

Cottle, T.J. (1971). "Temporal correlates of dogmatism". *Journal of Consulting and Clinical Psychology*, 36, 70-81.

Crandall, J.E. & Rasmussen, R.D. (1975). "Purpose in life as related to specific values". *Journal of Clinical Psychology*, 31, 483-485.

Cross, S. & Markus, H. (1991), "Possible selves across the life-span." *Human Development*, 34, 230-255.

Crumbaugh, J.C. & Maholick, L.T. (1964). "An experimental study of existentialism: The psychometric approach to Frankl's concept of noogenic neurosis". *Journal of Clinical Psychology*, 20, 200-207.

Dada, M.K. & Awaritefe, A. (1993) "Psychopathology among Yoruba students as influenced by the locus of control orientation". *Ife Psychologia*, 1, 100-113.

Daltrey, M.H. (1982). "The development and evaluation of a future time perspective instrument." *Dissertation Abstract International*, 43(7), 2315-B.

Davids, A. & Parenti, A. (1958). "Time orientation and interpersonal relations of emotionally disturbed and normal children." *Journal of Abnormal and Social Psychology*, 57, 299-305.

- Dauids, A., Kidder, C. & Reich, M. (1962): "Time orientation in male and female delinquents." *Journal of Abnormal and Social Psychology*, 64, 239-240.
- Davidson, J.D. (1972). "Religious belief as an independent variable". *Journal for the Scientific Study of Religion*, 11, 65-75.
- Debats, D.L. (1990). "The life regard index, reliability and validity". *Psychological Reports*, 67, 27-34.
- Debats, D.L., Drost, J. & Hanson, P. (1995). "Experience of meaning in life: A combined qualitative and quantitative approach". *British Journal of Psychology*, 86, 359-375.
- de Rivera, T. (1982). *A structural theory of emotions*. New York: International University Press.
- De Volder, M. (1979). "Time Orientation: A review." *Psychological Belgica*, 19, 61-79.
- De Volder, M.L. & Lens, W. (1982). "Academic achievement and future time perspective as a cognitive-motivational concept." *Journal of Personality and Social Psychology*, 42, 566-571.
- Dilling,, C.A. & Rabin, A.I. (1967). "Temporal experience in depressive states and schizophrenia". *Journal of Consulting Psychology*, 31, 604-608.
- Dittman-Kohli, F. (1989). *Possibilities and constraints for positive meaning in old age*. Paper presented at the 10th Biennial meeting of International Society for the study of Behavioural Development in Jyvaskyla, Finland.

Doob, L.W. (1971). *Patterning of time*. New Haven, Connecticut: Yale University Press.

Dreher, E. & Oerter, R. (1986). "Children's and adolescent's conceptions of adulthood: The changing view of a crucial developmental task." In R.K. Silbereisen, K. Eyferth & G. Rudinger (Eds.), *Development as action in context, problem and normal youth development* (pp. 109-120) Berlin: Springer.

Edmunds, G.J. (1981). "An exploration of the relationship between a religious perspective, meaning in life and death anxiety". *Dissertation Abstract International*, 42 (4-B) 1601.

Elder, G.H. & MacInnis, D.J. (1983). "Achievement imagery in women's lives from adolescence to adulthood." *Journal of Personality and Social Psychology*, 45, 394-404.

Emmons, R.A. (1986). "Personal strivings: An approach to personality and subjective well-being." *Journal of Personality and Social Psychology*, 51, 1058-1068.

Emmons, R.A. (1989). "The personal strivings: An approach to personality". In L.A. Pervin (Ed.), *Goal Concepts in personality and Social Psychology* (pp. 87-126). Hillsdale, N.J.: Erlbaum.

Emmons, R.A. (1992). "Abstract versus concrete goals: Personal striving level, physical illness and psychological well-being". *Journal of Personality and Social psychology*, 62, 292-300.

Emmons, R.A. (1993). *Personal Striving Coding Manual*. Unpublished Manuscript, Department of Psychology, University of California, Davis, CA:

- Emmons, R.A. & McAdams, D.P. (1991). "Personal strivings and motive dispositions: Exploring the links". *Personality and Social Bulletin*, 17, 648-654.
- Erikson, E.H. (1950). *Childhood and Society*, New York: Norton.
- Erikson, E.H. (1954). *Identity and the life cycle*, New York: International University Press.
- Erikson, E. (1963). *Childhood and Society* (Rev. ed.). New York: Norton.
- Erickson, R.C. & Post, R.D. (1975). "Hope as a psychiatric variable". *Journal of Clinical Psychology*, 31, 324-330.
- Eyo, I.E. (1986). "Nigerian adaptation of Herman's questionnaire measure of achievement motivation". *Nigerian Journal of Psychology*, 5, 62-71.
- Fafowora, O. (1983). "The gathering storm." *The Guardian*, May 29, p. 29.
- Fiske, M. & Chiriboga, D.A. (1990). *Continuity and Change in adult life*. San Francisco: Jossey-Bass.
- Fitzgerald, L.F. & Coites, J.O. (1980). "Toward a career psychology for women: What do we know? What do we need to know?" *Journal of Counselling Psychologist*, 27, 44-62.
- Frank, L.K. (1939). "Time perspectives". *Journal of Social Philosophy*, 4, 293-312.
- Frankl, V.E. (1970). *Will to Meaning: Foundations and applications of logotherapy*. New York: New American Library.

- Freud, S. (1927). *The future of an illusion*. (Tr. J. Strachey), London: The Hogarth Press.
- Freud, S. (1961). "The ego and the id." In J. Strachy (Ed. and Trans.), *Standard edition of the complete psychological works of Sigmund Freud* (Vol. 19, pp. 3-66). London: Hogarth Press.
- Fricke, R. (1979). "Orientation towards the future by Liberian school-children: A contribution to the understanding of young West Africans." *Human Development*, 22, 113-126.
- Gardner, D.C. & Gardner, P.L. (1978). "Goal-setting and learning in the high school resource room." *Adolescence*, 13, 439-493.
- Gillies, P., Elmwood, J.M. & Hawtin, P. (1985). "Anxieties in adolescents about employment and war." *British Medical Journal*, 291, 383.
- Gillispie, J.M. & Allport, G.W. (1955). *Youth's outlook on the future (a cross-national study)*. New York: Doubleday & Company.
- Gjesme, T. (1975). "Slope of gradients for performance as a function of achievement motive, goal distance in time, and future time orientation." *Journal of Psychology*, 91, 143-160.
- Gjesme, T. (1979). "Future orientation as a function of achievement motives, ability, delay of gratification, and sex." *Journal of Psychology*, 101, 173-188.
- Gjesme, T. (1981). "Is there any future in achievement motivation?" *Motivation and Emotion*, 5, 115-138.
- Gjesme, T. (1983). "On the concept of future time orientation: Consideration

of some functions and measurement implications. *International Journal of Psychology*, 18, 443-461.

Glock, C.Y. & Stark, R. (1965). *Religion and Society in Tension*. Chicago: Rand McNally.

Goldrich, T. (1967). "A Study in time orientation: The relationship between memory for past experiences and orientation to the future". *Journal of Personality and Social Psychology*, 6, 216-221.

Gorsuch, R. (1988). "Psychology of religion." *Annual Review of Psychology*, 39, 201-221.

Greaves, G. (1971). "Temporal orientation in suicidal patients". *Perceptual Motor Skills*, 33, 1020-1022.

Greene, A.L. (1986). "Future-time perspective in adolescence: The present of things future revised." *Journal of Youth and Adolescence*, 15, 99-111.

Greenberg, J.S. (1983). *Comprehensive Stress Management*. Dubuque, Iowa: Wm. Brown.

Greer, D.L. & Kleiber, D.A. (1985). "Youth outlook on the future III: A second past-present comparison." *Youth and Society*, 17, 97-112.

Hagestad, G.O. & Neugarten, B.L. (1985). "Age and the life course." In R.H. Binstock & E. Shamas (Eds.), *Handbook of aging and social sciences* (pp. 35-61). New York: Van Nostrand.

Hammond, P.E., Goodman, W.L., Greer, S., Hall, R.H. & Taylor, M.C. (1975). *The structure of human society*. Lexington, Mass.: D.C.

Heath & Co.

Havighurts, R.J. (1953). *Human Development and Education*. New York: Longmans, Green.

Havighurst, R.J. (1974). *Developmental tasks and education* (3rd ed.). New York: Mackay.

Heckel, R.B. & Rajagopal, J. (1975). "Future time perspective in Indian and American College students." *Journal of Social Psychology*, 95, 131-132.

Heckhausen, H. (1967). *The anatomy of achievement motivation* (3rd ed.). New York: Mackay.

Heckhausen, H. (1977). "Achievement motivation and its concepts: A cognitive model." *Motivation and Emotion*, 1, 283-329.

Heckhausen, J. & Baltes, P.B. (1991). "Perceived controllability of expected psychological change across adulthood and old age". *Journal of Gerontology: Psychological Sciences*, 46, 165-173.

Held, T. (1986). "Institutionalization and disinstitutionalization of the life course." *Human Development*, 29, 157-162.

Higgins, E.T. (1987). "Self-discrepancy theory: A theory relating self and affect." *Psychological Review*, 94, 319-340.

Huisman, S. (1994). "The impact of differences in religion on the relation between religiosity and values". In A.M. Bouvey, F.J.R. Van de Vijer, P. Bowski, & P. Schmitz (Eds.), *Journeys into Cross-cultural Psychology*. Lisse: Swets & Zeitlinger.

- Ibude, N.M. (1983). *Aging and Adjustment: A Study in Bendel State*. Unpublished M.Sc. dissertation, University of Benin.
- Idehen, E.E. (1986). *Psychological disorders among children in Oredo and Ovia Local Government Areas of Bendel State*. Unpublished Masters thesis, Uniben.
- Imade, T. (1986). "A validation study of the Awaritefe Psychological Index" (API). *Nigerian Journal of Clinical Psychology*, 5, 41-46.
- Jacoby, J. (1969). "Time perspective and dogmatism: A replication." *Journal of Social Psychology*, 79, 281-282.
- James, W. (1948). *Psychology*. New York: World Publishing.
- Jegede, R.O. (1981). "Self-concepts of young Nigerian adolescents." *Psychological Reports*, 49, 451-454.
- Jones, S.L. (1994). "A constructive relationship for religion with the science and profession of psychology". *American Psychologist*, 49, 184-199.
- Kanfer, F.H. (1979). "Self-management: Strategies and tactics." In A.P. Goldstein & F.H. Kanfer. (Eds.), *Maximizing treatment gains*. New York: Academic Press.
- Kanu, M. (1992). "Those prophets of doom." *The Guardian*, October 13, p. 19.
- Kastenbaum, R. (1961). "The dimension of future time perspective: An experimental analysis." *Journal of General Psychology*, 65, 203-218.
- Kastenbaum, R. (1963). "Cognitive and personal futurity in later life."

Journal of Individual Psychology, 19, 216-222.

Kastenbaum, R. (1965). "The direction of time perspective: The influence of affective set". *Journal of Genetic Psychology, 73, 189-201.*

Kastennbaum, R. (1966). "On the meaning of time in later life". *Journal of Genetic Psychology, 109, 9-25.*

Kendall, M.B. & Sibley, R.F. (1970). "Social class differences: Artifact." *Journal of Social Psychology, 82, 187-191.*

Kiresuk, T. & Sherman, R. (1968). "Goal attainment scaling: A general method for evaluating community mental health programs." *Community Mental Health Journal, 4, 443-453.*

Klineberg, S.L. (1967). "Changes in outlook to the future between childhood and adolescence." *Journal of Personality and Social psychology, 7, 185-193.*

Klineberg, S.L. (1968). "Future time perspective and the preference for delayed reward." *Journal of Personality and Social Psychology, 8, 253-257.*

Klinger, E. (1977). *Meaning and void. Inner experience and the incentives in people's lives.* Minneapolis: University of Minnesota Press.

Klinger, E. Berta, S.G. & Maxiner, M.E. (1981). "Current concerns: Assessing therapeutically relevant Motivation". In P.C. Kendall & S. Hollon (Eds.), *Assessment strategies for cognitive-behavioural interventions* (pp. 161-195). New York: Academic Press.

Kobuzal, S.M. (1975). "Psychological type and other significant correlates

of traditional and post-traditional religiosity among University undergraduates". *Dissertation Abstract International*, 38 (11-B) 1953.

Kuhl, J. (1984). "Volitional aspects of achievement motivation and learned helplessness: Toward a comprehensive theory of action control". *Personality Research*, 13, 99-171.

Krauss, H.H. & Ruiz, R.H. (1967). "Anxiety and temporal perspective." *Journal of Clinical Psychology*, 23, 88-93.

Krauss, H.H. & Ruiz, R.A. (1968). "Anxiety, temporal perspective and item content of Incomplete Thought Test (ITT). *Journal of Clinical Psychology*, 24, 70-72.

Lachman, M.E. (1986). "Locus of control in aging research: A case for multidimensional and domain-specific assessment". *Psychology and Aging*, 1, 34-40.

Lamm, H., Schmidt, R.W. & Trommsdorff, G. (1976). "Sex and Social Class as determinants of future-orientation (Time Perspective) in adolescence." *Journal of Personality and Social Psychology*, 34, 317-326.

Landis, J.R. & Koch, G.G. (1977). "The measurement of observer agreement for categorical data". *Biometrics*, 33, 159-174.

Larson, D.B., Shrill, K.A., Lyons, J.S., Craigie, F.C., Thielman, S.B., Greenwald, M.A. & Larson, S.S. (1992)". Associations between dimensions of religious commitment and mental health reported in American Journal of Psychiatry and Archivers of General Psychiatry (1978-1989):. *American Journal of Psychiatry*, 149, 557-559.

- Lazarus, R.S. (1983). "The Costs and Benefits of Denial". In S. Breznitz (Ed.), *The denial of Stress* (pp. 1-31), New York: International University press.
- Lazarus, R.S. & Folkman, S. (1987). "Transactional theory and research on emotions and coping." *European Journal of Personality*, 1, 141-169.
- Lazarus, R.S. & Launier, R. (1978). "Stress-related transactions between person and environment." In L.A. Pervin & M. Lewis (Eds.), *Perspectives in International Psychology* (pp. 237-327). New York: Plenum.
- Lecci, L., Okun, M.A. & Karoly, P. (1994). "Life regrets and current goals as predictors of psychological adjustment." *Journal of Personality and Social psychology*, 66, 731-741.
- Lens, W. (1986). "Future time perspective: A cognitive-motivational concept". In D.R. Brown & J. Veroff (Eds.), *Frontiers of Motivational psychology* (pp. 173-190). New York: Springer.
- Lens, W. & Gailley, A. (1980). "Extension of future time perspective." *International Journal of Behavioural Development*, 3, 1-17.
- Lessing, E.E. (1968). "Demographic, developmental, and personality correlates of future time perspective." *Journal of Personality*, 36, 193-201.
- Lessing, E.E. (1972). "Extension of personal future time perspective, age and life satisfaction of children and adolescents". *Developmental Psychology*, 6, 457-468.
- Levinson, D.J. (1986). "A conception of adult development". *American*

psychologist, 40, 3-13.

Levinson, D.J., Darrow, C.M., Klein, E.B., Levinson, M.H. & McKee, B. (1976). Periods in adult development of Men: Ages 18 to 45. *The Counseling Psychologists*, 6, 21-25.

Levinson, D.J., Darrow, C.N., Klein, E.B., Levinson, M.H. & B. McKee (1978). *The seasons of a man's life*. New York: Knopf.

Lewin, K. (1942). "Time perspective and morale". In G. Watson (Ed.), *Civilian Morale*. Boston: Houghton Mifflin.

Lewin, K. (1948). "Time perspective and morale." In K. Lewin (Ed.), *Resolving Social Conflicts* (pp. 103-124).

Lewin, K. (1951). *Field theory in Social Science*, New York: Harper.

Little, B.R., (1983). "Personal projects: A rationale and method for investigation." *Environment and Behaviour*, 15, 273-309.

Little, B.R. (1989). "Personal projects analysis: Trivial pursuits, magnificent obsessions and the search for coherence". In D.M. Buss & N. Cantor (Eds.), *Personality psychology: Recent trends and emerging directions* (pp. 15-31). New York: Springer.

Little, B.R. (1993). "Psychological perspectives on the self". In J. Suls (Ed.), *The self in social perspective* (pp. 157-185). Hillsdale, NJ: Erlbaum.

Locke, E.A., Shaw, K.N., Saari, L.M. & Latham, G.P. (1981). "Goal setting and task performance: 1969-1980". *Psychological Bulletin*, 90, 125-152.

- Loomranz, J., Friedman, A., Gitter, G., Shmotkin, D. & Medini (1985). "The meaning of time-related concepts across the life-span: An Israeli sample". *International Journal of Aging and Human Development*, 21, 37-107.
- Maqsud, M. (1978). "Social interaction and moral judgement in Northern Nigerian adolescents". *Journal of Social Psychology*, 105, 3-10.
- Markus, H. & Nurius, P. (1986). "Possible selves." *American Psychologists*, 41, 954-969.
- Markus, H. & Ruvolo, A. (1989). "Possible selves: Personalized representations of goals." In L.A. Pervin (Ed.), *Goal concepts in personality and Social Psychology*, (pp. 211-242). Hillsdale, NJ: Erlbaum.
- Maslow, A.H. (1970). *Motivation and Personality* (2nd ed.). New York: Harper & Row.
- Mbaezue, J.D.K. (1982). *Personal adjustment and religion*. Unpublished M.Sc. dissertation, University of Benin.
- McAdams, D.P. (1980). "A thematic coding system for intimacy motive". *Journal of Research in Personality*, 14, 413-432.
- Meade, R.O. (1972). "Future time perspective of college students in America and India". *Journal of Social psychology*, 3, 93-99.
- Meadow, M.J. (1976). "The structure of religious attitudes: A factor analytic study". *Dissertation Abstract International*, 37 (12-B) 6339.
- Mehta, P.H., Rohila, P.K., Sundberg, N.D. & Tyler, L.E. (1972). "Future time

perspective of adolescents in India and the United States." *Journal of Cross-cultural Psychology*, 3, 293-302.

Merton, R.K. (1959). *Social theory and social structure*. Glencoe, ILL: The Free Press.

Messiner, W. (1973). "Toward a cognitive learning reconceptualization of personality". *Psychological Review*, 80, 252-283.

Mgbemena, N.J. (1983). *Psychological factors of imprisonment*. Unpublished M.Sc. dissertation, University of Benin.

Monks, F. (1968). "Future time perspective in adolescents." *Human Development*, 11, 107-123.

Myers, D. (1987). *Social psychology* (2nd. Ed.), New York: McGraw-Hill.

Neisser, U. (1976). *Cognition and reality: Principles and implications of cognitive psychology*. San Francisco: Freeman.

Neugarten, B.L. (1979). "Time, age, and the life cycle". *American Psychiatry*, 136, 887-894.

Neugarten, B.L., Moore, J.W. & Lowe, J.C. (1965). "Age norms, age constraints, and adult socialization". *American Journal of Sociology*, 70, 710-717.

Nisbett, R.E. & Wilson, T.D. (1977). "Telling more than we can know: Verbal reports on mental process". *Psychological Review*, 84, 231-259.

Norem, J.K. & Cantor, N. (1986). "Defensive pessimism: 'Harnessing'

anxiety as motivation." *Journal of Personality and Social Psychology*, 51, 1208-1217.

Nurmi, J.E. (1987a). *Adolescent's future orientation, life span, and socialisation in the family context*. A poster presented at IX Biennial meeting of International Society of Behavioural Development, Tokyo. (ERIC Document Reproduction Service No. ED 289 615).

Nurmi, J.E. (1987b). "Age, sex, social class, and quality of family interaction as determinants of adolescent's future orientation: A developmental task interpretation." *Adolescence*, 22, 977-991.

Nurmi, J.E. (1988). *Parent-child interaction and adolescent's future orientation: The effects of age and sex*. A poster presented at the Third European Conference on Development Psychology, Budapest. (ERIC Document Service No. ED 297-849).

Nurmi, J.E. (1989a). "Development of orientation to the future during early adolescence: A four-year longitudinal study and two cross-sectional comparison." *International Journal of Behavioural Development*, 24, 195-214.

Nurmi, J.E. (1989b). "Planning, motivation, and evaluation in orientation to the future: A latent structure analysis." *Scandinavian Journal of Psychology*, 30, 64-71.

Nurmi, J.E. (1989c). "Adolescent's orientation to the future: Development of interests and plans, and related attributions and affects, in the life-span context." *Commentationes Scientiarum Socialium*, 39. The Finnish Society for Sciences and Letters.

Nurmi, J.E. (1991). "How do adolescents see their future? A review of the

development of future orientation and planning." *Developmental Review*, 11, 1-59.

Nurmi, J.E. (1992). "Age differences in adult life goals, concerns, and their related temporal extension: A life course approach to future-oriented motivation". *International Journal of Behavioural Development*, 15, 487-568.

Nurmi, J.E. (1993). "Adolescent development in an age-graded context: The role of personal beliefs, goals and strategies in the tackling of developmental tasks and standards." *International Journal of Behavioural Development*, 16, 169-189.

Nurmi, J.E. & Lainekeivi, J. (1991). "Verbal fluency and the measurement of future-oriented goals and hopes: Comparison of questionnaire and interview data". *Perceptual and Motor Skills*, 72, 1-2.

Nurmi, J.E., Pullianien, H. & Samela-Aro, K. (1992). "Age differences in adults' control beliefs related to life goals and concerns". *Psychology and Aging*, 7, 194-196.

Nurmi, J.E., Poole, M.E. & Kalakoski, V. (1994). "Age differences in adolescent future-oriented goals, concerns and related temporal extension in different sociocultural contexts." *Journal of Youth and Adolescence*, 23, 471-487.

Nuttin, J.R. (1964). *The future time perspective in human motivation and learning*. Proceedings of the 17th International Congress of Psychology. Amsterdam: North-Holland.

Nuttin, J.R. (1984). *Motivation, planning, and action: A relational theory of behaviour dynamics*. Hillsdale, NJ: Erlbaum.

Nuttin, J.R. & Grommen, R. (1975). "Future time perspective in adulthood and old age in three socioeconomic groups". University of Louvian. *Psychological Reports*, 5.

Nuttin, J.R. & Lens, W. (1985). *Future time perspective and motivation: Theory and research method*. Leuven-Hillsdale, NJ: Erlbaum.

O'Brien, S.J. & Conger, P.R. (1991). "No time to look back: Approaching the finishing line of life course". *International Journal of Aging and Human Development*, 33, 75-87.

Oduntan, S.O., Ayeni, O. & Kale, O.O. (1976). The age of Menarche in Nigerian girls. *Annals of Human Biology*, 3, 269-274.

Okediran, W.A. (1992). "Farewell to good times". *The Guardian*, May 2, p. 13.

Okumadewa, F. (1995). "The poverty alleviation in Nigeria: A framework". *The Guardian*, October 3, pp. 14.

Olowu, E.O. (1987). *A cross-sectional study of some literate Nigerian Adults' aspiration*. M.Ed. Dissertation submitted to the Department of Continuing Education, Obafemi Awolowo University, Ile-Ife.

Omedei, M.M. & Wearing, A.J. (1990). "Need satisfaction and involvement in personal projects: Toward an integrative model of subjective well-being". *Journal of Personality and Social psychology*, 59, 762-769.

Onibokun, Y. (1980). "Achievement Motivation: Disparity between boys and girls in a Nigerian setting". *West African Journal of Education*, 21, 108-162.

Onumah, C. (1995). "Postponing the evil day". *A.M. News*, October 9, p. 11.

Oppenheimer, L. (1987). "Cognitive and social variables in the plan of action." In S.H. Friedman, E.K. Scholnick & R.R. Cocking (Eds.), *Blueprints for thinking. The role of planning in cognitive development*. Cambridge: Cambridge University Press.

Orbach, I., Illuz, A. & Resenheim, E. (1987). "Value system and commitment to goals as a function of age, integration of personality, and fear of death". *International Journal of Behaviour Development*, 10, 225-239.

Paloutzian, R.F. (1981). "Purpose in life and value changes following conversion". *Journal of personality and Social Psychology*, 41, 1153-1160.

Paloutzian, R.F., Jackson, S.L. & Crandall, J.E. (1978). "Conversion experience, belief system, and personal and ethical attitudes". *Journal of Psychology and Theology*, 6, 266-275.

Perlman, L.M. (1976). "Temporal extension and orientation: A methodological study". *Perceptual and Motor Skills*, 43, 775-785.

Pervin, L.A. (1983). "The stais and flow of behaviour: Toward a theory of goals". In M.M. Page (Ed.), *Nebraska Symposium on Motivation* (pp. 1-53). Lincoln, N.B.: University of Nebraska Press.

Pervin, L.A. (1985). "Personality: Current Controversies, issues, and directions". *Annual Review of Psychology*, 36, 83-114.

Pervin, L.A. (1989). *Goal concepts in personality and Social Psychology*.

Hillsdale, New Jersey: Erlbaum.

- Platt, J.J. & Eisenman, R. (1968). "Internal-External Control of reinforcement, time perspective, adjustment, and anxiety." *Journal of General Psychology*, 79, 121-128.
- Platt, J.J., Eisenman, R., Dellisser, D., Darbes, A. (1971). "Temporal perspective as a personality dimension in college students: A re-evaluation." *Perceptual and Motor Skills*, 33, 103-109.
- Platt, J.J. & Taylor, R.E. (1967). "Homesickness, future time perspectives, and the self concept." *Journal of Individual Psychology*, 23, 94-97.
- Poole, M.E. & Cooney, G.H. (1987). "Orientation to the future: A comparison of adolescents in Australia and Singapore." *Journal of Youth and Adolescence*, 16, 129-151.
- Rabin, A.I. (1978). "Future time perspective and ego strength." In T. Fraser & H. Lawrence (Eds.), *The study of time III*. New York: Springer.
- Raynor, J.O. (1974). "Future orientation in the study of achievement. Motivation." In J.W. Atkinson & J.O. Raynor (Eds.), *Motivation and Achievement* (pp. 121-154). Washington, D.C.: Winston.
- Raynor, J.O. (1981). "Future orientation and achievement motivation: Toward a theory of personality functioning and change". In G. d'Ydewalle & W. Lens (Ed.), *Cognition in human motivation and learning* (pp. 199-231). Hillsdale, NJ: Erlbaum.
- Raynor, J.O. & Entin, J.E. (1982). "Self-possession of attributes, self-evaluation, and future orientation: A theory of adult competence and motivation". In J.O. Raynor & E.E. Entin (Ed.), *Motivation, career*

striving, and aging (pp. 207-226). Washington, DC: Hemisphere.

Roberts, A.H. & Greene, J.E. (1971). "Cross-cultural study of relationship among four dimensions of time perspective." *Perceptual Motor Skills*, 33, 163-173.

Rogers, C.R. (1951). *Client-centered therapy*. Boston, mass.: Houghton Mifflin Co.

Rogers, C.R. (1961). *On becoming human*. Boston, Mass.: Houghton Mifflin Co.

Rogers, T. (1976). "Manifestations of religiosity and the aging process". *Religious Education*, 71, 405-415.

Rokeach, M. & Bonier, R. (1960). "Time perspective, dogmatism, and anxiety." In M. Rokeach (Ed.), *The open and closed mind* (pp. 366-375) New York: Basic Books.

Rosenberg, M. (1979). *Conceiving the self*. New York: Basic Books.

Rotter, J.B. (1966). "Generalized expectancies for internal versus external control of reinforcement". *Psychological Monographs*, 80.

Ruiz, A.A., Reivich, R.S., & Krauss, H.H. (1987). "Tests of temporal perspective: Do they Measure the same construct?" *Psychological Reports*, 21, 849-852.

Samaan, S.A. & Samaan, A.J. (1974). "Fears and worries of Nigerian and American adolescents: A cross-cultural study". *African Journal of Educational Research*, 1, 171-195.

Scheier, M.F. & Carver, C.S. (1985). "Optimism, coping, and health: Assessment and implications of generalized outcome expectancies." *Health Psychology, 4*, 219-247.

Scheier, M.F. & Carver, C.S. (1987). "Dispositional optimism and physical well-being: The influence of generalized outcome expectancies on health". *Journal of Personality, 58*, 11-28.

Scheier, M.F. & Carver, C.S. (1992). "Effects of optimism on psychological and physical well-being: Theoretical overview and empirical update". *Cognitive Therapy and Research, 16*, 201-228.

Scheier, M.F. & Carver, C.S. & Bridges, M.W. (1994). "Distinguishing optimism from neuroticism (and trait anxiety, self, mastery, and self-esteem): A re-evaluation of the life orientation test". *Journal of Personality and Social Psychology, 67*, 1063-1078.

Scheier, M.F., Weintraub, J.K. & Carver, C.S. (1986). "Coping with stress: Divergent strategies of optimists and pessimists." *Journal of Personality and Social Psychology, 51*, 1257-1264.

Schlenker, B.R. & Weigold, M.F. (1989). Goals and self identification process: Constructing desired identities. In L.A. Pervin (Ed.), *Goal concepts in personality and Social Psychology* (pp. 253-290). Hillsdale, NJ: Erlbaum.

Scobie, G.E.W. (1978). *Psychology of Religion*. New York: John Wiley.

Sechrest, L. (1968). "Testing, measuring and assessing people". In E.F. Borgata & W.W. Lambert (Eds.), *Handbook of Personality Theory and Research* (pp. 79-130). Chicago, ILL: Rand McNally.

- Seginer, R. (1988a). "Adolescents facing the future. Cultural and Sociopolitical perspectives." *Youth and Society*, 19, 314-333.
- Seginer, R. (1988b). "Social milieu and future-orientation: The case of Kibbutz vs. Urban adolescents." *International Journal of Behavioural Development*, 11, 247-273.
- Seginer, R. (1992). "Future orientation: Age-related differences among adolescents females". *Journal of Youth and Adolescence*, 21, 421-437.
- Shannon, L.W. (1958). Future time perspective in three cultural groups: A cultural differences or an expectancy interpretation. *Developmental Psychology*, 11, 114-115.
- Sheehy, G. (1976). *Passages: Predictable crisis of adult life*. New York: Dutton.
- Showers, C. & Cantor, N. (1985). *The effects of best- and worst-case strategies: Making sense of judgement "bias"*. Paper presented at the meeting of the Midwestern Psychological Association, Chicago.
- Shybut, J. (1968). Time perspective, internal vs. external control, and severity of psychological disturbance. *Journal of Clinical Psychology*, 24, 312-315.
- Smelser, N. & Erikson, E. (1980). *Themes of work and love in adulthood*, London: Grant McIntyre.
- Snyder, M.L., Stephan, W.G. & Rosenfield, O. (1978). "Attributional egotism". In J.H. Harvey, W.J. Ickes & R.F. Kidd (Eds.), *New directions in attribution research*. (Vol. 2 pp. 91-117). Hillsdale, NJ:

Erlbaum.

Soderstorm, G.D. (1977). "Religious orientation and meaning in life". *Dissertation Abstract International*, 38 (8-B) 3910.

Soderstorm, G.D. & Wright, E.W. (1977). "Religious Orientation and Meaning in Life". *Journal of Clinical Psychology*, 33, 65-68.

Solantaus, T. (1987). "Hopes and worries of young people in three European countries." *Health Promotion*, 2, 19-27.

SPSS Inc. (1990). *Statistical Package for Social Sciences* (PC+ Version 4.10), Chicago, ILL: SPSS Inc.

Sundberg, N.D., Poole, M.E. & Tyler, L.E. (1983). "Adolescents' expectations of future events: A cross-cultural study of Australian, American and Indians." *International Journal of Psychology*, 18, 415-427.

Steptoe, A. & Wardle, J. (1992). "Cognitive predictors of health behaviour in contrasting regions of Europe". *British Journal of Clinical Psychology*, 31, 485-502.

Strathman, A., Gleicher, F., Boniger, D.S. & Edwards, C.S. (1994). "The consideration of future consequences: Highlighting immediate and distant outcomes of behaviour". *Journal of Personality and Social Psychology*, 66, 742-752.

Strauman, T.J. & Higgins, E.T. (1987). "Automatic activation of self-discrepancies and emotional syndromes: When cognitive structures influence affect." *Journal of Personality and Social Psychology*, 53,

- Sullivan, H.S. (1958). *The collected works of Harvey Stack Sullivan*. Vol. 1 (H.S. Perry & M.L. Gawal, Eds.). New York: Norton.
- Tallman, I., Marotz-Baden, R. & Pindas, P. (1983). *Adolescent socialization in cross-cultural perspective: Planning for social change*. New York: Academic Press.
- Taylor, S.E. (1983). "Adjustment to threatening events: A theory of cognitive adaptation". *Journal of Abnormal Social Psychology*, 57, 379-382.
- Taylor, S.E. & Brown, J.D. (1988). "Illusion and well-being. A social psychological perspective on mental health". *Psychological Bulletin*, 103, 193-210.
- Teahan, J.E. (1958). "Future time perspective, optimism and academic achievement." *Journal of Abnormal Social psychology*, 59, 379-380.
- Tennen, H. & Suls, J. & Affleck, G. (1991). "Personality and daily experience: The promise and the challenge". *Journal of Personality*, 59, 313-338.
- Thomae, H. (1970). "Theory of aging and cognitive theory of personality". *Developmental Psychology*, 13, 1-16.
- Thompson, S.C. (1987). "Will it hurt less if I can control it? A complex answer to a simple question". *Psychological Bulletin*, 90, 89-101.
- Thompson, S.C. & Janigian, A.S. (1988). "Life Scheme: A framework for

- understanding the search for meaning". *Journal of Social and Clinical Psychology*, 7, 260-280.
- Toban, E.V. (1970). "Relation between future time perspective, age and militancy". *Journal of Genetic Psychology*, 116, 63-83.
- Togonu-Bickersteth, F. (1987). "Chronological definitions and expectations of old age among young adults in Nigeria." *Journal of Aging Studies*, 1, 113-124.
- Tomkins, S.S. (1962) *Affect, imagery, consciousness, Vol. 1 The Positive affects*. New York: Springer.
- Trommsdorff, G. (1978). *Social conditions of future orientation*. Paper presented to the European Association of Social psychology, Weimer.
- Trommsdorff, G. (1983). "Future orientation and socialization." *International Journal of Psychology*, 18, 381-406.
- Trommsdorff, G. & Lamm, H. (1975). "An analysis of future orientation and some of its social determinants". In J.T., Fraser & N. Lawrence (Eds.), *The Study of Time II* (pp. 343-361). N.Y.: Springer.
- Trommsdorff, G. & Lamm, H. (1980). "Future orientation of institutionalized and non-institutionalized delinquents and non-delinquents". *European Journal of Social psychology*, 10, 247-278.
- Trommsdorff, G., Lamm, H. & Schmidt, R.W. (1979). "A Longitudinal study of adolescents' future orientation (Time Perspective)." *Journal of Youth and Adolescence*, 8, 131-147.
- Trommsdorff, G., Burger, C. & Fuchsle, T. (1982). "Social and psychological

- aspects of future orientation." In M. Irle (Ed.). *Studies in Decision Making*. Berlin: de Gruyter.
- Tryon, W.W. & Radqin, A.B. (1972). "Purpose-in-life as a function of ego resiliency, dogmatism and biographical variables". *Journal of Clinical Psychology*, 28, 544-545.
- Tukey, J.W. (1977). *Exploratory data Analysis*. Reading, MA: Addison-Wesley.
- Ugorji, S.R.U. (1982). "Orientations towards development among Ibo villagers of Umuaro, Nigeria". *Dissertation Abstract International*, 43 (5-B) 1668.
- Uka, N. (1966). *Growing up in Nigerian culture*. Ibadan: Institute of Education Occasional Papers.
- Verstraeten, D. (1980). "Level of realism in adolescent future time perspective." *Human Development*, 23, 177-191.
- Vincent, J.W. (1965). *An investigation of constricted and extended temporal perspectives*. Unpublished Master thesis. University of Oregon.
- Wadsworth, M. & Ford, D.A. (1983). Assessment of personal goal hierarchies, *Journal of Counselling Psychology*, 30, 514-526.
- Wallace, M. (1956). "Future time perspective in schizophrenia." *Journal of Abnormal Social Psychology*, 52, 240-245.
- Wallace, J. (1967). "What units shall we employ? Allport's question revisited". *Journal of Consulting Psychology*, 31, 56-64.

- Wallace, M. & Rabin, A.I. (1960). "Temporal experience." *Psychological Bulletin*, 57, 213-236.
- Weiner, B. (Ed.) (1974). *Achievement motivation and attribution theory*. Morristown, NJ: General Learning Press.
- Weiner, B. (1985). "An attributional theory of achievement motivation and emotion." *Psychological Review*, 92, 548-573.
- Weinsten, N.D. (1980). "Unrealistic optimism about future events". *Journal of Personality and Social Psychology*, 39, 806-820.
- Weinsten, N.D. (1982). "Why it won't happen to me: Perceptions of risk factors and susceptibility". *Health Psychology*, 3, 431-443.
- Wessman, A.E. & Ricks, D.I. (1966). *Mood and Personality*. New York: Holt, Rinehart & Winston.
- Wilson, E.B. (1986). "Age and sex differences in self-reported fears of Nigerian adolescents." In E.B. Wilson (Ed.), *Psychology and Society: Selected readings*. Ile-Ife: Nigerian Psychological Association.
- Wolpe, J. (1973). *The practice of behaviour therapy* (2nd ed.). New York: Pergamon Press.
- Worthington, E.L. (1989). "Religious faith across the life-span: Implications for counselling". *The Counselling Psychologist*, 17, 555-612.
- Yakubu, J. (1995). "Economy: Still in a state of flux". *A.M. News*, October 20, p. 5.
- Zuckerman, M. (1979). "Attribution of success and failure revised, or: The

motivational bias is alive and well in attribution theory". *Journal of Personality*, 47, 245-287.

Zuckerman, D.M. (1985). "Confidence and aspirations: Self-esteem and self-concepts as predictors of students' life goals." *Journal of Personality*, 53, 543-560.

Zurher, L.A., Willis, J.E., Ikard, F.F. and Dohme, J.A. (1967). "Dogmatism, future orientation and perception of time." *Journal of Social Psychology*, 73, 205-209.

CODESRIA - LIBRARY

APPENDIX A, PART 1

Department of Psychology

RESEARCH ON FUTURE INTENTIONS

Instructions

We are carrying out a study on some aspects of personal planning and future intentions. We would appreciate your cooperation in completing this questionnaire.

All of us at various times think about our future and what it portends. All we are asking is that you do the same now and answer the questions on the following pages. There are no right or wrong answers. The best answer is the most immediate and spontaneous one that occurs to you. Please read each question carefully before answering. Do not leave any question unanswered.

The questionnaire is completely anonymous. All we ask is that you provide below some pertinent information about yourself. This information will be treated in strict confidence.

SECTION A: Personal Data Form

Age: Date of Birth

Sex: 1 Male 2. Female

Marital Status: 1 Single 2 Married 3 Separated 4 Widowed

Highest formal schooling attained:

.....

Occupation Income (per month)

State of origin Ethnic Group

Religion: Denomination

APPENDIX A, PART 2

FUTURE POSSIBILITIES QUESTIONNAIRE - HOPE SCALE (FPQ-H)

SECTION B

Instructions

People often think about the future. In doing so they see it in terms of hopes and plans. Please write down, in the lines below, your own goals, hopes, dreams and plans for the future.

	(a) Goals, hopes, plans	(b) Expected age of occurrence	(c) Control			
			TD	MD	MT	TF
			1	2	3	4
1.			1	2	3	4
2.			1	2	3	4
3.			1	2	3	4
4.			1	2	3	4
5.			1	2	3	4
6.			1	2	3	4
7.			1	2	3	4
8.			1	2	3	4
9.			1	2	3	4
10.			1	2	3	4

Please go through what you have just written, and for each hope mentioned:

(b) Write down (in the spaces provided in column b) the age you believe you will be when it will come true.

(c) For each of the items in columns a & b, please indicate by circling the appropriate number in front of the item (in column c), whether the occurrence of the hope will be:

- 1 = totally due to you (TD),
- 2 = mostly due to you (MD),
- 3 = mostly due to factors other than you (MT), or
- 4 = totally due to factors other than you (TF).

APPENDIX A, PART 3

FUTURE POSSIBILITIES QUESTIONNAIRE - FEAR SCALE (FPQ-F)

SECTION C

Instructions

The things people think about in the future are not always pleasant. Now we would like you to think about your fears and worries concerning the future. Please write them in lines below.

	(a) Fears and worries	(b) Expected age of occurrence	(c) Control			
			TD 1	MD 2	MT 3	TF 4
1.			1	2	3	4
2.			1	2	3	4
3.			1	2	3	4
4.			1	2	3	4
5.			1	2	3	4
6.			1	2	3	4
7.			1	2	3	4
8.			1	2	3	4
9.			1	2	3	4
10.			1	2	3	4

Please go through what you have just written, and for each fear mentioned:

- (a) Write down (in the spaces provided in column b) the age you believe you will be when it may happen.
- (c) For each of the items in columns a & b, please indicate by circling the appropriate number in front of the item (in column c), whether the prevention of its happening will be
- 1 = totally due to you (TD),
 - 2 = mostly due to you (MD),
 - 3 = mostly due to factors other than you (MT), or
 - 4 = totally due to factors other than you (TF).

APPENDIX A, PART 4

ATTITUDE AND INTERNALITY SCALE (AIS)

SECTION D

Instructions

The questions below requires you to make a choice between 4 alternatives. Please tick or circle the appropriate number to indicate your answer to each question.

1. I personally think that the future will be:
1 2 3 4
very pleasant pleasant unpleasant very unpleasant
2. My personal future is:
1 2 3 4
very frightening frightening safe very safe
frightening
3. I see my future as:
1 2 3 4
very hopeful hopeful hopeless very hopeless
4. My personal future depends:
1 2 3 4
solely on me on me to some extent on others to some extent solely on others
5. Whatever happens to me in the future will due to:
1 2 3 4
chance faith both me and faith me alone
6. I believe that making it in the future depends:
1 2 3 4
on how hard I work somewhat on my effort on luck to some extent entirely on luck
7. I believe that people can shape their own future:
1 2 3 4
to a great extent to some extent to a little extent to a very little extent

APPENDIX A, PART 5

LIFE ORIENTATION TEST (LOT)

SECTION E

Instructions

The statements below inquire about your beliefs and feelings. Please indicate the extent to which you agree or disagree with each statement by circling either:

- 1 = Strongly disagree (SD),
- 2 = Disagree (D),
- 3 = Not sure (NS),
- 4 = Agree (A), or
- 5 = Strongly agree (SA).

- | | | | | | |
|---|---|---|---|---|---|
| 1. In certain times, I usually expect the best | 1 | 2 | 3 | 4 | 5 |
| 2. It's easy for me to relax | 1 | 2 | 3 | 4 | 5 |
| 3. If something can go wrong for me, it will | 1 | 2 | 3 | 4 | 5 |
| 4. I always look on the bright side of things | 1 | 2 | 3 | 4 | 5 |
| 5. I'm always optimistic about the future | 1 | 2 | 3 | 4 | 5 |
| 6. I enjoy my friends | 1 | 2 | 3 | 4 | 5 |
| 7. It's important for me to keep busy | 1 | 2 | 3 | 4 | 5 |
| 8. I hardly ever expect things to go my way | 1 | 2 | 3 | 4 | 5 |
| 9. Things never work out the way I want them to | 1 | 2 | 3 | 4 | 5 |
| 10. I don't get upset easily | 1 | 2 | 3 | 4 | 5 |
| 11. I'm a believer in the idea that "every cloud has a silver lining" | 1 | 2 | 3 | 4 | 5 |
| 12. I rarely count on good things happening to me | 1 | 2 | 3 | 4 | 5 |

APPENDIX A, PART 6

RELIGIOUS ORIENTATION TEST (ROT)

SECTION F

Instructions

These questions inquire about some aspects of your religious life. There are no right or wrong answers. We are interested only in your frank opinions. Please answer each by circling the alternatives (1, 2, 3, 4 or 5) which best represent your normal practice.

1. How religious, do you consider yourself to be?

1	2	3	4	5
very religious	quite religious	fairly religious	not very religious	not at all religious

2. How often do you attend religious services?

1	2	3	4	5
frequently	often	sometimes	seldom	never

3. How often do you pray?

1	2	3	4	5
five times a day	more than twice a day	once a day	only when necessary	seldom if ever

4. How often do you read the Holy Scriptures?

1	2	3	4	5
daily	often	occasionally	seldom	never

5. How often do you watch or listen to religious programmes on TV or radio?

1	2	3	4	5
always	frequently	sometimes	rarely	never

6. How important is your religious belief in your daily life?

1	2	3	4	5
of utmost importance	of great importance	of some importance	of little importance	of no importance

APPENDIX A, PART 7

PURPOSE IN LIFE SCALE (PIL)

SECTION G

Instructions

The items below inquire about how you view life at present. These self-descriptive terms are arranged on opposing poles. Please read each one carefully and decide how much each describes how you feel about life and your self. Then circle the appropriate number between the terms to indicate your true feelings.

- | | | | |
|-----|--|---------------|-----------------------------------|
| 1. | I am usually:
completely bored | 1 2 3 4 5 6 7 | exuberant,
enthusiastic |
| 2. | Life to me seems:
always exciting | 1 2 3 4 5 6 7 | completely routine |
| 3. | My personal existence is:
utterly meaningless and
without purpose | 1 2 3 4 5 6 7 | very purposeful and
meaningful |
| 4. | In my life:
everyday is new | 1 2 3 4 5 6 7 | the same |
| 5. | My life is: worthwhile | 1 2 3 4 5 6 7 | worthless |
| 6. | My life is filled with:
despair | 1 2 3 4 5 6 7 | good things |
| 7. | In achieving life goals I
have: progressed to
complete fulfillment | 1 2 3 4 5 6 7 | made no progress
whatsoever |
| 8. | In life I have: no goals or
aims at all | 1 2 3 4 5 6 7 | very clear goals and
aims |
| 9. | My life can really make:
a difference | 1 2 3 4 5 6 7 | no difference |
| 10. | I feel my life has:
a meaning | 1 2 3 4 5 6 7 | no meaning |
| 11. | Facing daily tasks is:
a pleasure | 1 2 3 4 5 6 7 | very painful |
| 12. | If I should die today, I
would feel that my life has
been: very worthwhile | 1 2 3 4 5 6 7 | completely
worthless |

APPENDIX A, PART 8

AWARITEFE PSYCHOLOGICAL INDEX - MOOD SCALE (API)

SECTION H

Since the past seven days have you done or felt the following? Please, answer by ticking the "Yes" or the "No". If you are not sure or cannot decide, tick the "?"

1.	Feel sad	Yes	No	?
2.	Easily annoyed	Yes	No	?
3.	Feel life is not worth living	Yes	No	?
4.	Act before thinking	Yes	No	?
5.	No longer enjoy the things I used to	Yes	No	?
6.	Nervous (before my seniors or authority figures)	Yes	No	?
7.	Shouting	Yes	No	?
8.	Singing and dancing alone	Yes	No	?
9.	Spend money too freely	Yes	No	?
10.	Neglect personal hygiene (untidy)	Yes	No	?
11.	Don't laugh	Yes	No	?
12.	Tense (tight)	Yes	No	?
13.	Dull, not lively	Yes	No	?
14.	No Interest	Yes	No	?
15.	Tearful (weeping)	Yes	No	?
16.	Laugh alone (to one self)	Yes	No	?
17.	Fearful (afraid)	Yes	No	?
18.	Feel lazy to get up from bed in the morning	Yes	No	?
19.	Restless (cannot sit quietly in one place for a long time)	Yes	No	?
20.	Worried	Yes	No	?
21.	Shyness	Yes	No	?

APPENDIX A, PART 9

HEALTH BEHAVIOUR QUESTIONNAIRE (HBQ)

SECTION I

The questions below inquire about some of the behaviours you may or may not have engaged in the past month. Please answer all questions.

1. Have you had a medical check up in the past one month? Yes No
2. Have you been to the Dentist in the past one month? Yes No
3. As an individual, how much concern would you say you generally show about your health? (Please tick one of these alternatives)

1	2	3	4
Not at all concerned	Not very concerned	Some concern	A lot of concern

4. Would you describe yourself as a: (Please tick one as appropriate)

1	2	3	4
Former smoker	Non-smoker	Current smoker	Never smoked

5. Would you describe yourself as a: (Please tick one as appropriate)

1	2	3	4
Non-drinker	Special occasions drinker	Occasional drinker	Regular drinker

6. How many times, over the past 2 weeks, have you taken over-the-counter drugs?

1	2	3	4
Once	Two or three times	Four or five times	More than five times

7. Do you use drugs that were not prescribed by a doctor?

Yes	No
-----	----

8. Have you engaged in any physical exercise in the past two weeks?

Yes	No
-----	----

9. Have you, in the past one month, paid attention to what you eat?

Yes	No
-----	----

10. Did you, in the past week, examine your body for any sign of illness or infection?

Yes	No
-----	----

APPENDIX B

LIFE DOMAIN CODING MANUAL

The Life Possibilities Questionnaire asks respondents in an open-ended format to generate lists of their future-oriented goals. The technique elicits idiographic goal statements that can be analyzed according to several classificatory schemes. For the purpose of this study we decided to use life domain categories. A life domain is made up of topics that concern a particular socially recognized and normatively prescribed life task such as education and marriage. Thus, although the generated goal statements are stated in personally meaningful ways, they can be classified into life domains emphasized on the basis of their thematic content.

This Manual describes 15 life domain categories. For each category, definitional criteria are given followed by examples of goal statements exemplifying that category. The categories are not mutually exclusive. A given goal statement can overlap one or more life domain categories. However, a goal statement may not necessarily fit any of the categories. If this should occur, it is better to code such statements into category 16 (Miscellaneous), rather than force such statements into a category that "seem" best to accommodate it. The entire list of hopes or fears generated by a respondent may all fit into only one life domain category. On the other hand, they may be classifiable into several categories. The classifications depend solely on the theme(s) emphasized by each goal statement. Therefore, it is not the number of domains into which the respondent's goal

statements were categorized that is important at this stage. Rather, what is required is the neat classification of all the goal statements listed into the most appropriate life domain(s).

CATEGORY 1:
CHILDREN'S LIVES

General concern over the future lives of own children. Goal statements that emphasize the general welfare of one's children. This includes the education, future marriage, behaviour, and so on of the children.

Examples of goal statements reflecting concern with *children's lives* include:

- To train my children.
- To give my children the best in life.
- To make my children turn out good.
- To marry my daughters out.
- Inability to provide for my children.
- My children having problems.
- Premature death of children.
- The future of my children.

CATEGORY 2:

EDUCATION

Concern with success or accomplishment in the educational sphere. Reference to performance such as study more and attainment of specific educational goals such as graduation.

Examples of goals statements reflecting *educational* goals include:

Do well in school.

Be more diligent in my studies.

Be knowledgeable about topics of interest.

To pass all my examinations.

Failing any of my subjects.

Sponsorship in the university.

About studying more.

Strikes delaying my graduation.

CATEGORY 3:

FAMILY

Goal statements that refer to members of the extended (but not own nuclear) family. Reference to parents, their well-being, health or death. Helping siblings and other relatives. General concern with the extended family. Concern for or desire to establish, maintain, or repair relations with members of the extended family.

Examples of goal statements reflecting *extended family* concerns

include:

Take care of my parents.

Help other members of the family.

Support my brothers and sisters.

Be helpful to my relatives.

Being able to see my mother regularly.

Death of a parent.

My father getting sick.

Problems in the family.

CATEGORY 4:

HEALTH

Goals related to personal well-being, whether physical, emotional or mental. Concern with improving or maintaining one's health; avoiding illness. Reference to general health, injuries, accidents and death.

Examples of goal statements reflecting *health* concerns include:

Take good care of my health in future.

To quit smoking.

Keep my body in good shape.

Avoid poor eating habits.

Dying young.

Having serious illness.

Being involved in an accident.

Worried about my health.

CATEGORY 5:

INTERPERSONAL RELATIONSHIPS

Concern for or desire to establish, maintain, or repair interpersonal relations. Seeking approval and acceptance from others. Reference to helping or doing things for others not members of own family. General reference to others not members of own nuclear or extended family. Relations involving either approaching or avoiding other people.

Examples of goal statements reflecting *interpersonal relationships* include:

Try to help others.

Be loving to others.

To be needed by others.

Make new friends.

Having bad friends.

Evil people.

Whether others will like me.

Avoid doing things that hurt people.

CATEGORY 6:

LEISURE

Reference to extracurricular activities. Concern with engagement in recreational activities, such as sports, and parties.

Examples of goal statements reflecting *leisure* concerns include:

Learn to swim.

Take my hobbies seriously.

Attend more parties.

Not being able to play games.

Read newspapers to keep abreast of current events.

Watching films.

Learn new games.

Use my free time productively.

CATEGORY 7:

MARRIAGE

Reference to own marriage and family: Dating, courtship, security of marriage and marital relationship. Concern for or desire to establish, maintain or repair relationships with the opposite sex. Goals that emphasize playing socially prescribed family roles. Concern with fulfilling the needs of one's family. Commitment to and concern for an opposite sex partner. Attainment of specific family goals such as getting married, becoming a parent and grandparent.

Examples of goal statements reflecting *marriage* concerns include:

Help and love my family.

Marry the girl/boy of my heart.

Have my first baby.

Marry and settle down.

Not getting married on time.

Being jilted.

Having miscarriages.

Not finding the right partner.

CATEGORY 8:

OCCUPATION

Reference to specific professions or occupations, employment and career advancement: Concern with success and accomplishment in the occupational sphere. Reference to performance on the job. Trying hard to do well and expending effort in career related tasks.

Examples of goal statements reflecting *occupational* concerns include:

Reach the very top in my job.

To get a good job.

To advance my career.

Work hard and be efficient.

Not getting a job on time.

Premature retirement (retrenchment).

Being jobless.

Inadequate salary.

CATEGORY 9:

PROPERTY

Reference to possession of material things. Such as building a house, buying a car, having a fat bank account, and owning a business or an enterprise.

Examples of goal statements reflecting *property* concerns include:

Save money.

To build my own house.

To establish my own firm.

Buy a car.

Financial difficulties.

Not being able to build a house.

Failure of business ventures.

Loosing money.

CATEGORY 10:

RELIGION

Reference to God, religion and spiritual matters. Improving, maintaining, or enhancing one's spiritual life. Belonging to a religious group and being more active religiously.

Get closer to God.

Keep God in my thoughts.

Maintaining my faith.

To preach the word of God.

Remember to pray always.

Not spreading the word of God.

Making heaven.

Living a religious life.

CATEGORY 11:

RETIREMENT

Looking forward to, preparing for, coping with/adjustment to retirement. Reference to life after retirement, concern with changes due to retirement.

Examples of goal statements reflecting *retirement* concerns include:

Go into private business after retirement.

Stay active at retirement.

Retire from public service.

Joblessness after retirement.

Gratuities being delayed.

About life after retirement.

Lack of funds at retirement.

CATEGORY 12:

SELF

Goals related to the growth and development of the self. Improving, maintaining, or enhancing self-esteem. Concern with being happier, or avoiding unhappiness, stress, anxiety, and other negative emotions. Concern with improving aspects of the self: characterological changes, life-styles and physical appearance.

Examples of goal statements reflecting *self growth and development* concerns include:

Be happier with my life.

Be honest.

Lead a happy and fulfilled life.

Make a success of my life.

Non-achievement of my life goals.

Would I succeed in life?

How to become a good person.

Not taking life seriously.

CATEGORY 13:

SOCIAL SERVICE

Goal statements that refer to helping people other than own nuclear or extended family. Concern with the community. Reference to helping or

advancing the community, doing volunteer work, going for national service and providing support for others.

Examples of goal statements reflecting *social service* concerns include:

Help the community.

Be involved with politics of the country.

Going for national youth service.

To be a philanthropist.

Avoid excessive social pressures.

See to the good of my society.

Being involved in the affairs of the nation.

Going into politics after graduation.

CATEGORY 14:

TRAVEL

Concern for or desire to travel either within the country or out of the country. Examples of goal statements reflecting *travel* concerns include:

To visit my relations in London.

To travel to Calabar.

I will like to tour the world.

Go overseas to further my education.

Not having the opportunity to travel.

Being denied a visa.

Accompany my friend to his home town during the holiday.

Knowing more of the country.

CATEGORY 15:

NATIONAL AFFAIRS

Reference to national issues such as the state of the economy, sociopolitical situation and war. Concern with helping the nation solve its problems.

Examples of goal statements reflecting *national affairs* concerns include:

The economy may worsen.

The future of the nation.

No peace in the country.

Bad policies.

Political stability of the nation.

War may break out.

Help resolve the problems of the nation.

Contribute to peace and stability of Nigeria.

CATEGORY 16:

MISCELLANEOUS

Any goal statements that cannot be classified into any one of the above categories. Examples of such goal statements include:

Armed robbery attack.

Celebrating my 50th birthday.

Making Christmas presents.

Organize social gatherings.

Have a wonderful time.

Live in a better world.

CODESRIA - LIBRARY

APPENDIX C1
Summary of Analyses of Variance of the Content,
Extension and Control Scores of Overall Hopes

Source	Content		Extension		Control		
	df	F	P	F	P	F	P
Age (A)	3	4.20	.006	1.81	-	0.49	-
Gender (B)	1	0.90	-	2.75	.09	1.41	-
Educational Status (C)	1	4.39	.04	2.11	-	0.075	-
Optimism (D)	1	0.00	-	0.15	-	0.03	-
Religiosity (E)	1	0.47	-	0.01	-	0.59	-
A X B	3	0.91	-	0.92	-	1.12	-
A X C	3	2.24	.08	1.05	-	0.93	-
A X D	3	1.97	-	0.31	-	0.87	-
A X E	3	1.33	-	0.73	-	1.12	-
B X C	1	0.09	-	0.15	-	0.05	-
B X D	1	1.66	-	1.03	-	0.37	-
B X E	1	1.82	-	3.47	.06	0.22	-
C X D	1	1.70	-	2.19	-	1.96	-
C X E	1	0.60	-	1.94	-	0.00	-
D X E	1	0.95	-	0.33	-	1.34	-
A X B X C	3	0.31	-	1.59	-	1.43	-
A X B X D	2	1.19	-	0.39	-	2.00	-
A X B X E	2	0.05	-	1.97	-	0.48	-
A X C X D	3	1.28	-	1.65	-	1.31	-
A X C X E	3	1.04	-	0.25	-	1.53	-
A X D X E	3	1.73	-	1.71	-	1.06	-
B X C X D	1	0.00	-	2.29	-	0.82	-
B X C X E	1	1.43	-	2.56	-	0.20	-
B X D X E	1	0.58	-	1.93	-	1.91	-
C X D X E	1	1.43	-	2.85	.09	1.57	-
A X B X C X D	1	0.58	-	0.03	-	1.57	-
A X B X C X E	-	-	-	-	-	-	-
A X B X D X E	2	0.12	-	0.96	-	2.13	-
A X C X D X E	-	-	-	-	-	-	-
B X C X D X E	1	0.23	-	0.85	-	1.10	-
A X B X C X D X E	-	-	-	-	-	-	-
Constant	1	52.56	.0005	2.79	.09	23.08	.0005
Error	668	-	-	-	-	-	-

APPENDIX C2
Summary of Analyses of Variance of the Content,
Extension and Control Scores of Hopes Related to Children Lives

Source	Content		Extension		Control		
	df	F	P	F	P	F	P
Age (A)	3	6.481	.0005	2.302	.08	2.753	.04
Gender (B)	1	0.681		0.874	-	3.770	.05
Educational Status (C)	1	7.032	.008	0.839	-	134.57	.0005
Optimism (D)	1	0.004	-	3.630	.06	0.035	-
Religiosity (E)	1	0.259	-	0.015	-	0.010	-
A X B	3	0.679	-	1.838	-	1.628	-
A X C	3	5.146	.002	1.154	-	5.287	.001
A X D	3	0.286	-	0.957	-	1.228	-
A X E	3	1.593	-	0.104	-	0.540	-
B X C	1	6.146	.01	.860	-	8.367	.004
B X D	1	8.585	.004	0.000	-	3.364	.08
B X E	1	0.565	-	0.685	-	0.077	-
C X D	1	3.478	.06	0.233	-	2.688	.05
C X E	1	7.078	.008	2.993	.08	0.023	-
D X E	1	0.069	-	0.143	-	4.608	.03
A X B X C	3	2.167	.09	0.277	-	3.833	.01
A X B X D	2	1.765	-	0.427	-	0.718	-
A X B X E	2	1.351	-	0.207	-	0.245	-
A X C X D	3	3.521	.01	0.569	-	4.188	.006
A X C X E	2	2.088	-	1.53	-	0.746	-
A X D X E	3	1.796	-	0.897	-	2.604	.05
B X C X D	1	3.472	.06	1.089	-	4.762	.03
B X C X E	1	0.854	-	0.045	-	0.131	-
B X D X E	1	1.899	-	0.668	-	0.053	-
C X D X E	1	0.550	-	0.876	-	0.132	-
A X B X C X D	2	2.644	-	1.341	-	2.091	-
A X B X C X E	-	-	-	-	-	-	-
A X B X D X E	2	3.627	.02	1.184	-	0.521	-
A X C X D X E	-	-	-	-	-	-	-
B X C X D X E	1	8.447	.004	2.425	-	1.393	-
A X B X C X D X E	-	-	-	-	-	-	-
Constant	1	11.61	.001	12.10	.001	5.72	.02
Error	668	-	-	-	-	-	-

APPENDIX C3
Summary of Analyses of Variance of the Content,
Extension and Control Scores of Hopes Related to Education

Source	Content		Extension		Control		
	df	F	P	F	P	F	P
Age (A)	3	0.88	-	3.77	.01	5.40	.001
Gender (B)	1	0.00	-	0.23	-	1.67	-
Educational Status (C)	1	0.55	-	0.18	-	2.19	-
Optimism (D)	1	0.04	-	0.68	-	3.19	.07
Religiosity (E)	1	0.07	-	0.25	-	0.78	-
A X B	3	1.09	-	0.41	-	1.61	-
A X C	3	0.62	-	0.59	-	3.15	.02
A X D	3	0.73	-	0.88	-	1.37	-
A X E	3	0.11	-	0.38	-	1.92	-
B X C	1	0.45	-	1.20	-	0.98	-
B X D	1	0.08	-	1.48	-	1.88	-
B X E	1	0.96	-	0.26	-	0.21	-
C X D	1	1.17	-	1.75	-	0.29	-
C X E	1	1.13	-	0.11	-	1.56	-
D X E	1	0.30	-	0.37	-	0.63	-
A X B X C	3	1.29	-	0.65	-	0.87	-
A X B X D	2	0.39	-	1.15	-	2.79	.06
A X B X E	2	0.28	-	0.49	-	0.73	-
A X C X D	3	0.42	-	0.73	-	1.40	-
A X C X E	3	0.21	-	0.16	-	0.31	-
A X D X E	3	1.19	-	0.13	-	0.75	-
B X C X D	1	0.12	-	0.92	-	2.63	.10
B X C X E	1	0.80	-	0.32	-	0.18	-
B X D X E	1	0.11	-	0.55	-	0.00	-
C X D X E	1	1.69	-	0.40	-	1.21	-
A X B X C X D	2	0.45	-	1.02	-	4.25	.01
A X B X C X E	-	-	-	-	-	-	-
A X B X D X E	2	0.19	-	0.70	-	2.40	.09
A X C X D X E	-	-	-	-	-	-	-
B X C X D X E	1	0.00	-	0.28	-	1.31	-
A X B X C X D X E	-	-	-	-	-	-	-
Constant	1	7.94	.005	7.63	.006	6.31	.01
Error	668	-	-	-	-	-	-

APPENDIX C4
Summary of Analyses of Variance of the Content,
Extension and Control Scores of Hopes related to extended family

Source	df	Content		Extension		Control	
		F	P	F	P	F	P
Age (A)	3	0.50	-	0.51	-	0.39	-
Gender (B)	1	0.02	-	0.87	-	0.93	-
Educational Status (C)	1	0.09	-	0.59	-	1.07	-
Optimism (D)	1	0.05	-	0.49	-	0.49	-
Religiosity (E)	1	0.04	-	1.71	-	0.71	-
A X B	3	0.15	-	0.75	-	0.52	-
A X C	3	0.41	-	0.57	-	0.89	-
A X D	3	0.14	-	0.44	-	0.16	-
A X E	3	0.05	-	0.62	-	0.03	-
B X C	1	0.05	-	0.22	-	0.44	-
B X D	1	0.01	-	1.32	-	0.18	-
B X E	1	0.03	-	1.86	-	0.22	-
C X D	1	0.02	-	0.18	-	0.15	-
C X E	1	0.00	-	1.03	-	3.41	.06
D X E	1	0.00	-	7.12	.008	7.51	.006
A X B X C	3	0.01	-	0.31	-	0.15	-
A X B X D	2	0.05	-	1.07	-	0.13	-
A X B X E	2	0.06	-	1.66	-	0.18	-
A X C X D	3	0.01	-	1.58	-	0.30	-
A X C X E	3	0.01	-	0.61	-	3.51	.01
A X D X E	3	0.07	-	3.61	.01	2.34	.07
B X C X D	1	0.02	-	0.05	-	0.12	-
B X C X E	1	0.03	-	0.03	-	0.03	-
B X D X E	1	0.09	-	1.78	-	1.22	-
C X D X E	1	0.03	-	0.00	-	0.99	-
A X B X C X D	2	0.01	-	0.38	-	0.25	-
A X B X C X E	-	0.01	-	0.38	-	0.25	-
A X B X D X E	2	0.05	-	1.22	-	0.55	-
A X C X D X E							
B X C X D X E	1	0.00	-	0.00	-	0.01	-
A X B X C X D X E	-	-	-	-	-	-	-
Constant	1	.40	-	5.23	.02	137	-
Error	668	-	-	-	-	-	-

APPENDIX C5
Summary of Analyses of Variance of the Content,
Extension and Control Scores of Hope related to Health

Source	Content			Extension			Control	
	df	F	P	F	P	F	P	
Age (A)	3	0.04	-	0.27	-	0.47	-	
Gender (B)	1	0.00	-	0.70	-	1.16	-	
Educational Status (C)	1	0.16	-	4.90	.03	6.66	.01	
Optimism (D)	1	0.01	-	0.07	-	0.09	-	
Religiosity (E)	1	0.01	-	0.03	-	0.03	-	
A X B	3	0.08	-	0.69	-	0.60	-	
A X C	3	0.58	-	1.87	-	1.84	-	
A X D	3	0.08	-	0.30	-	0.41	-	
A X E	3	1.00	-	0.39	-	0.29	-	
B X C	1	0.05	-	0.03	-	0.12	-	
B X D	1	0.01	-	0.23	-	0.23	-	
B X E	1	0.54	-	2.57	.10	2.07	-	
C X D	1	0.00	-	0.01	-	0.38	-	
C X E	1	0.42	-	7.78	.005	9.89	.002	
D X E	1	0.34	-	0.02	-	0.28	-	
A X B X C	3	0.217	-	0.03	-	0.16	-	
A X B X D	2	0.08	-	0.06	-	0.07	-	
A X B X E	2	0.36	-	1.67	-	1.44	-	
A X C X D	3	0.05	-	0.06	-	0.29	-	
A X C X E	3	0.05	-	1.92	-	2.82	.03	
A X D X E	3	0.58	-	2.25	.08	2.09	.10	
B X C X D	1	0.03	-	0.01	-	0.06	-	
B X C X E	1	0.00	-	0.04	-	0.01	-	
B X D X E	1	0.00	-	0.35	-	0.16	-	
C X D X E	1	0.10	-	0.32	-	0.33	-	
A X B X C X D	2	0.19	-	0.03	-	0.03	-	
A X B X C X E	-	-	-	-	-	-	-	
A X B X D X E	2	0.06	-	0.35	-	0.12	-	
A X C X D X E	-	-	-	-	-	-	-	
B X C X D X E	1	0.10	-	0.03	-	0.01	-	
A X B X C X D X E	-	-	-	-	-	-	-	
Constant	1	0.10	-	0.30	-	0.44	-	
Error	668	-	-	-	-	-	-	

APPENDIX C6
Summary of Analyses of Variance of the Content, Extension
and Control Scores of Hopes related to Interpersonal Relations

Source	df	Content		Extension		Control	
		F	P	F	P	F	P
Age (A)	3	0.09	-	0.40	-	.07	-
Gender (B)	1	0.05	-	1.36	-	.17	-
Educational Status (C)	1	0.15	-	3.03	.08	0.90	-
Optimism (D)	1	0.03	-	1.96	-	0.32	-
Religiosity (E)	1	0.02	-	0.13	-	0.05	-
A X B	3	0.03	-	0.56	-	0.54	-
A X C	3	0.07	-	1.32	-	0.51	-
A X D	3	0.12	-	0.84	-	0.21	-
A X E	3	0.06	-	0.26	-	0.39	-
B X C	1	0.30	-	2.01	-	0.90	-
B X D	1	0.07	-	1.84	-	0.31	-
B X E	1	0.01	-	0.06	-	0.51	-
C X D	1	0.81	-	1.63	-	0.47	-
C X E	1	0.02	-	0.00	-	0.07	-
D X E	1	0.07	-	0.00	-	0.17	-
A X B X C	3	0.06	-	1.31	-	0.62	-
A X B X D	2	0.03	-	0.19	-	0.10	-
A X B X E	2	0.13	-	0.05	-	0.36	-
A X C X D	3	0.06	-	0.66	-	0.13	-
A X C X E	3	0.11	-	0.08	-	0.03	-
A X D X E	3	0.04	-	0.11	-	0.20	-
B X C X D	1	0.08	-	3.26	.07	1.38	-
B X C X E	1	0.02	-	0.19	-	0.13	-
B X D X E	1	0.00	-	-	-	0.23	-
C X D X E	1	0.20	-	0.02	-	0.14	-
A X B X C X D	2	0.20	-	1.12	-	0.50	-
A X B X C X E	-	-	-	-	-	-	-
A X B X D X E	2	0.02	-	0.89	-	0.55	-
A X C X D X E	-	-	-	-	-	-	-
B X C X D X E	1	0.00	-	0.06	-	0.14	-
A X B X C X D X E	-	-	-	-	-	-	-
Constant	1	0.22	-	2.73	.09	0.75	-
Error	668	-	-	-	-	-	-

APPENDIX C7
Summary of Analyses of Variance of the Content,
Extension and Control Scores of Hopes Related to Leisure

Source	Content		Extension		Control		
	df	F	P	F	P	F	P
Age (A)	3	0.04	-	0.80	-	0.08	-
Gender (B)	1	0.09	-	1.53	-	0.00	-
Educational Status (C)	1	0.00	-	0.13	-	0.09	-
Optimism (D)	1	0.11	-	1.96	-	0.02	-
Religiosity (E)	1	0.15	-	2.90	-	0.13	-
A X B	3	0.15	-	0.69	-	0.22	-
A X C	3	0.16	-	0.59	-	0.73	-
A X D	3	0.17	-	1.04	-	0.11	-
A X E	3	0.11	-	0.54	-	0.28	-
B X C	1	0.00	-	0.36	-	0.00	-
B X D	1	0.02	-	1.70	-	0.11	-
B X E	1	0.03	-	3.26	.07	0.25	-
C X D	1	0.00	-	0.32	-	0.00	-
C X E	1	0.04	-	0.25	-	0.27	-
D X E	1	0.17	-	3.84	.05	0.24	-
A X B X C	3	0.01	-	0.06	-	0.07	-
A X B X D	2	0.04	-	0.77	-	0.06	-
A X B X E	2	0.27	-	1.64	-	0.46	-
A X C X D	3	0.08	-	0.01	-	0.11	-
A X C X E	3	0.00	-	0.00	-	0.09	-
A X D X E	3	0.12	-	1.89	-	0.57	-
B X C X D	1	0.02	-	0.09	-	0.00	-
B X C X E	1	0.10	-	0.44	-	0.01	-
B X D X E	1	0.00	-	3.26	.07	0.39	-
C X D X E	1	0.05	-	0.44	-	0.05	-
A X B X C X D	2	0.03	-	0.45	-	0.30	-
A X B X C X E	-	-	-	-	-	-	-
A X B X D X E	2	0.10	-	1.64	-	0.24	-
A X C X D X E	-	-	-	-	-	-	-
B X C X D X E	1	0.10	-	0.44	-	0.05	-
A X B X C X D X E	-	-	-	-	-	-	-
Constant	1	0.05	-	0.44	-	0.05	-
Error	668	-	-	-	-	-	-

APPENDIX C8
Summary of Analyses of Variance of the Content,
Extension and Control Scores of Hopes related to Marriage

Source	Content		Extension		Control		
	df	F	P	F	P	F	P
Age (A)	3	5.93	.001	4.29	.005	2.51	.05
Gender (B)	1	0.00	-	0.62	-	0.46	-
Educational Status (C)	1	0.15	-	0.01	-	0.37	-
Optimism (D)	1	0.12	-	0.31	-	0.14	-
Religiosity (E)	1	0.02	-	1.27	-	0.13	-
A X B	3	0.58	-	0.10	-	0.46	-
A X C	3	1.37	-	0.32	-	0.11	-
A X D	3	0.13	-	0.07	-	0.31	-
A X E	3	1.78	-	0.68	-	0.78	-
B X C	1	0.01	-	0.37	-	0.43	-
B X D	1	0.01	-	0.52	-	0.74	-
B X E	1	2.05	-	0.03	-	0.44	-
C X D	1	0.01	-	0.21	-	0.57	-
C X E	1	1.15	-	1.38	-	4.40	.03
D X E	1	1.86	-	0.18	-	0.16	-
A X B X C	3	0.17	-	1.71	-	1.43	-
A X B X D	2	0.38	-	0.39	-	0.40	-
A X B X E	2	1.25	-	0.47	-	0.43	-
A X C X D	3	0.62	-	0.16	-	0.16	-
A X C X E	3	0.82	-	0.62	-	0.86	-
A X D X E	3	0.79	-	3.04	.03	0.66	-
B X C X D	1	0.08	-	0.09	-	0.21	-
B X C X E	1	3.46	.06	1.50	-	0.03	-
B X D X E	1	0.00	-	0.32	-	0.55	-
C X D X E	1	1.64	-	0.78	-	0.27	-
A X B X C X D	2	0.62	-	0.18	-	0.04	-
A X B X C X E	-	-	-	-	-	-	-
A X B X D X E	2	1.11	-	0.85	-	0.55	-
A X C X D X E	-	-	-	-	-	-	-
B X C X D X E	1	0.96	-	1.03	-	0.16	-
A X B X C X D X E	-	-	-	-	-	-	-
Constant	1	8.22	.004	12.11	.001	13.38	.000
Error	668	-	-	-	-	-	-

APPENDIX C9
Summary of Analyses of Variance of the Content,
Extension and Control Scores of Hopes Related to Occupation

Source	Content		Extension		Control		
	df	F	P	F	P	F	P
Age (A)	3	2.37	.06	2.00	-	2.76	.04
Gender (B)	1	0.05	-	0.28	-	0.00	-
Educational Status (C)	1	0.46	-	0.27	-	0.96	-
Optimism (D)	1	0.10	-	0.70	-	0.09	-
Religiosity (E)	1	1.27	-	0.47	-	0.73	-
A X B	3	0.53	-	0.48	-	0.51	-
A X C	3	0.97	-	0.96	-	0.66	-
A X D	3	0.28	-	0.61	-	0.78	-
A X E	3	1.09	-	0.92	-	2.28	.07
B X C	1	0.01	-	0.00	-	0.56	-
B X D	1	0.02	-	0.01	-	0.74	-
B X E	1	2.35	-	0.74	-	1.42	-
C X D	1	0.00	-	0.01	-	1.09	-
C X E	1	2.09	-	1.18	-	1.36	-
D X E	1	1.94	.09	0.36	-	2.82	.09
A X B X C	3	1.75	-	1.28	-	2.56	.05
A X B X D	2	0.19	-	0.44	-	3.54	.03
A X B X E	2	1.37	-	0.43	-	1.32	-
A X C X D	3	0.16	-	0.30	-	0.72	-
A X C X E	3	0.50	-	0.27	-	1.59	-
A X D X E	3	1.45	-	1.57	-	0.55	.004
B X C X D	1	0.05	-	0.15	-	0.36	-
B X C X E	1	1.94	-	0.37	-	0.00	-
B X D X E	1	1.43	-	1.12	-	4.54	.03
C X D X E	1	2.02	-	3.04	.08	8.13	.004
A X B X C X D	2	0.33	-	0.52	-	2.12	-
A X B X C X E	-	-	-	-	-	-	-
A X B X D X E	2	1.00	-	0.92	-	3.46	.03
A X C X D X E	-	-	-	-	-	-	-
B X C X D X E	1	0.01	-	0.24	-	1.96	-
A X B X C X D X E	-	-	-	-	-	-	-
Constant	1	10.35	.001	0.22	0.001	12.71	.00
Error	668	-	-	-	-	-	-

APPENDIX C10
Summary of Analyses of Variance of the Content,
Extension and Control Scores of Hopes Related to Property

Source	Content			Extension		Control	
	df	F	P	F	P	F	P
Age (A)	3	1.15	-	1.58	-	0.93	-
Gender (B)	1	0.04	-	1.24	-	0.71	-
Educational Status (C)	1	0.03	-	1.41	-	1.45	-
Optimism (D)	1	0.47	-	0.68	-	0.67	-
Religiosity (E)	1	0.29	-	2.11	-	1.58	-
A X B	3	0.13	-	0.46	-	1.62	-
A X C	3	1.14	-	3.56	.01	1.43	-
A X D	3	0.54	-	1.44	-	3.06	.02
A X E	3	0.63	-	0.84	-	0.61	-
B X C	1	0.04	-	0.80	-	0.41	.52
B X D	1	0.00	-	0.03	-	0.74	-
B X E	1	1.57	-	5.09	.02	2.58	.10
C X D	1	0.00	-	0.00	-	0.05	-
C X E	1	1.20	-	0.68	-	1.09	-
D X E	1	1.18	-	0.00	-	0.05	-
A X B X C	3	0.58	-	0.96	-	2.66	.04
A X B X D	2	0.36	-	0.27	-	1.09	-
A X B X E	2	1.53	-	2.20	-	2.08	-
A X C X D	3	0.25	-	0.14	-	3.66	.01
A X C X E	3	0.09	-	0.39	-	0.44	-
A X D X E	3	0.22	-	1.60	-	1.20	-
B X C X D	1	0.10	-	0.63	-	1.69	-
B X C X E	1	1.91	-	4.89	.03	2.43	-
B X D X E	1	0.11	-	0.10	-	0.01	-
C X D X E	1	0.53	-	1.83	-	1.25	-
A X B X C X D	2	0.02	-	0.46	-	0.30	-
A X B X C X E	-	-	-	-	-	-	-
A X B X D X E	2	0.99	-	0.32	-	0.74	-
A X C X D X E	-	-	-	-	-	-	-
B X C X D X E	1	0.37	-	0.56	-	0.31	-
A X B X C X D X E	-	-	-	-	-	-	-
Constant	1	14.10	.0005	16.78	.0005	14.84	.0005
Error	668	-	-	-	-	-	-

APPENDIX C11
Summary of Analyses of Variance of the Content,
Extension and Control Scores of Hopes related to Religion

Source	df	Content		Extension		Control	
		F	P	F	P	F	P
Age (A)	3	0.89	-	0.17	-	0.11	-
Gender (B)	1	0.02	-	0.02	-	0.01	-
Educational Status (C)	1	0.24	-	0.06	-	0.14	-
Optimism (D)	1	0.06	-	0.03	-	0.03	-
Religiosity (E)	1	0.28	-	0.19	-	0.51	-
A X B	3	0.27	-	0.28	-	0.22	-
A X C	3	1.14	-	0.00	-	0.04	-
A X D	3	0.45	-	0.13	-	0.40	-
A X E	3	1.52	-	0.33	-	0.88	-
B X C	1	2.98	.08	0.10	-	0.16	-
B X D	1	0.78	-	0.12	-	0.02	-
B X E	1	3.01	.08	0.35	-	0.17	-
C X D	1	2.42	-	0.02	-	0.01	-
C X E	1	0.09	-	1.66	-	0.30	-
D X E	1	2.81	.09	0.69	-	0.05	-
A X B X C	3	1.34	-	0.89	-	0.43	-
A X B X D	2	0.11	-	0.51	-	0.37	-
A X B X E	2	1.64	-	0.02	-	0.30	-
A X C X D	3	0.99	-	0.93	-	0.51	-
A X C X E	3	1.13	-	0.61	-	0.13	-
A X D X E	3	1.10	-	0.86	-	0.14	-
B X C X D	1	0.52	-	0.10	-	0.00	-
B X C X E	1	1.12	-	0.03	-	1.05	-
B X D X E	1	4.25	.04	0.04	-	0.66	-
C X D X E	1	1.34	-	0.44	-	0.49	-
A X B X C X D	2	0.17	-	0.20	-	0.36	-
A X B X C X E	-	-	-	-	-	-	-
A X B X D X E	2	2.02	-	0.28	-	0.73	-
A X C X D X E	-	-	-	-	-	-	-
B X C X D X E	1	1.55	-	0.57	-	0.04	-
A X B X C X D X E	-	-	-	-	-	-	-
Constant	1	0.55	-	3.21	.07	2.61	.10
Error	668	-	-	-	-	-	-

APPENDIX C12
Summary of Analyses of Variance of the Content,
Extension and Control Scores of Hopes related to Retirement

Source	Content			Extension		Control	
	df	F	P	F	P	F	P
Age (A)	3	4.34	.05	1.13	-	1.18	-
Gender (B)	1	0.42	-	2.13	-	1.64	-
Educational Status (C)	1	2.87	-	3.14	.07	3.39	-
Optimism (D)	1	0.09	-	0.30	-	0.19	-
Religiosity (E)	1	0.07	-	0.39	-	0.07	-
A X B	3	0.71	-	0.90	-	0.62	-
A X C	3	5.38	.001	1.00	-	2.13	.09
A X D	3	1.29	-	0.83	-	1.26	-
A X E	3	3.28	.02	0.60	-	1.03	-
B X C	1	2.79	.09	1.38	-	1.60	-
B X D	1	0.65	-	0.00	-	0.03	-
B X E	1	3.40	.07	1.15	-	1.45	-
C X D	1	1.06	-	0.69	-	0.52	-
C X E	1	0.00	-	0.04	-	0.50	-
D X E	1	2.58	-	0.05	-	0.02	-
A X B X C	3	4.69	.003	1.35	-	1.76	-
A X B X D	2	0.69	-	0.30	-	0.45	-
A X B X E	2	2.75	.07	0.52	-	0.39	-
A X C X D	3	1.00	-	0.91	-	0.51	-
A X C X E	3	2.59	.05	0.47	-	1.34	-
A X D X E	3	1.37	-	0.13	-	0.49	-
B X C X D	1	1.75	-	1.21	-	4.33	.04
B X C X E	1	5.32	.02	0.39	-	0.81	-
B X D X E	1	3.32	.06	0.40	-	0.44	-
C X D X E	1	7.00	.008	0.78	-	0.83	-
A X B X C X D	2	0.06	-	0.78	-	1.29	-
A X B X C X E	-	-	-	-	-	-	-
A X B X D X E	1	2.19	-	0.17	-	0.78	-
A X C X D X E	-	-	-	-	-	-	-
B X C X D X E	1	5.21	.02	0.43	-	1.76	-
A X B X C X D X E	-	-	-	-	-	-	-
Constant	1	1.86	-	2.17	-	3.90	.05
Error	668	-	-	-	-	-	-

APPENDIX C13
Summary of Analyses of Variance of the Content,
Extension and Control Scores of Hopes related to Self

Source	Content		Extension		Control		
	df	F	P	F	P	F	P
Age (A)	3	4.24	.006	.97	-	0.63	-
Gender (B)	1	0.39	-	0.15	-	0.69	-
Educational Status (C)	1	0.19	-	0.75	-	0.98	-
Optimism (D)	1	0.02	-	0.02	-	0.70	-
Religiosity (E)	1	0.09	-	0.08	-	0.72	-
A X B	3	0.55	-	0.46	-	0.68	-
A X C	3	0.22	-	0.05	-	0.91	-
A X D	3	2.90	.03	0.41	-	0.86	-
A X E	3	3.47	.01	0.37	-	0.66	-
B X C	1	0.50	-	0.12	-	0.27	-
B X D	1	0.28	-	0.01	-	0.65	-
B X E	1	4.07	.04	0.12	-	0.59	-
C X D	1	0.54	-	0.00	-	0.46	-
C X E	1	0.11	-	0.80	-	0.76	-
D X E	1	1.81	-	0.02	-	0.41	-
A X B X C	3	3.05	.03	0.28	-	0.27	-
A X B X D	2	0.05	-	0.07	-	0.96	-
A X B X E	2	3.61	.03	0.68	-	0.55	-
A X C X D	3	0.68	-	0.88	-	0.67	-
A X C X E	3	2.77	.04	0.39	-	0.80	-
A X D X E	3	1.75	-	0.51	-	0.72	-
B X C X D	1	0.39	-	0.01	-	0.56	-
B X C X E	1	12.13	.001	0.98	-	0.26	-
B X D X E	1	1.48	-	0.54	-	0.30	-
C X D X E	1	3.08	.08	0.78	-	0.40	-
A X B X C X D	2	0.65	-	0.13	-	0.85	-
A X B X C X E	-	-	-	-	-	-	-
A X B X D X E	2	.81	-	0.37	-	0.50	-
A X C X D X E	-	-	-	-	-	-	-
B X C X D X E	1	3.45	.06	0.62	-	0.35	-
A X B X C X D X E	-	-	-	-	-	-	-
Constant	1	0.14	-	0.54	-	0.17	-
Error	668	-	-	-	-	-	-

APPENDIX C14
Summary of Analyses of Variance of the Content, Extension
and Control Scores of Hopes related to Social Service

Source	Content		Extension		Control		
	df	F	P	F	P	F	P
Age (A)	3	0.28	-	0.97	-	2.77	.04
Gender (B)	1	0.15	-	0.17	-	1.92	-
Educational Status (C)	1	0.53	-	1.54	-	4.22	.04
Optimism (D)	1	0.52	-	0.92	-	1.32	-
Religiosity (E)	1	0.02	-	0.40	-	0.73	-
A X B	3	0.39	-	0.24	-	1.53	-
A X C	3	0.74	-	1.46	-	1.21	-
A X D	3	0.48	-	0.77	-	2.11	.09
A X E	3	0.03	-	0.67	-	1.76	-
B X C	1	0.26	-	1.10	-	3.97	.04
B X D	1	0.73	-	1.32	-	5.28	.02
B X E	1	0.01	-	0.03	-	1.34	-
C X D	1	0.64	-	1.95	-	4.86	.02
C X E	1	1.00	-	0.35	-	0.60	-
D X E	1	0.01	-	0.41	-	0.43	-
A X B X C	3	0.22	-	0.61	-	1.65	-
A X B X D	2	0.15	-	0.15	-	0.92	-
A X B X E	2	0.16	-	0.11	-	0.67	-
A X C X D	3	0.30	-	6.29	-	2.08	.10
A X C X E	3	0.02	-	0.35	-	1.22	-
A X D X E	3	0.23	-	1.73	-	2.79	.04
B X C X D	1	0.98	-	1.83	-	2.16	-
B X C X E	1	0.16	-	0.00	-	0.01	-
B X D X E	1	0.17	-	1.75	-	5.69	.01
C X D X E	1	-	-	0.03	-	0.00	-
A X B X C X D	2	0.37	-	0.75	-	0.67	-
A X B X C X E	-	-	-	-	-	-	-
A X B X D X E	2	0.06	-	1.13	-	2.92	.05
A X C X D X E	-	-	-	-	-	-	-
B X C X D X E	1	0.31	-	1.79	-	4.74	.03
A X B X C X D X E	-	-	-	-	-	-	-
Constant	1	0.07	-	0.06	-	0.20	-
Error	668	-	-	-	-	-	-

APPENDIX C15
Summary of Analyses of Variance of the Content,
Extension and Control Scores of Hopes related to Travel

Source	Content		Extension		Control		
	df	F	P	F	P	F	P
Age (A)	3	1.03	-	0.96	-	0.89	-
Gender (B)	1	0.41	-	0.36	-	0.41	-
Educational Status (C)	1	0.04	-	1.51	-	0.39	-
Optimism (D)	1	0.06	-	0.06	-	0.02	-
Religiosity (E)	1	1.00	-	0.03	-	0.00	-
A X B	3	0.13	-	0.72	-	0.07	-
A X C	3	0.47	-	1.01	-	0.38	-
A X D	3	0.14	-	0.23	-	0.24	-
A X E	3	0.58	-	1.84	-	0.60	-
B X C	3	0.03	-	0.03	-	0.05	-
B X D	1	0.03	-	0.04	-	0.11	-
B X E	1	0.45	-	0.88	-	0.03	-
C X D	1	0.03	-	0.17	-	0.02	-
C X E	1	0.32	-	2.22	-	1.11	-
D X E	1	0.44	-	3.96	-	0.28	-
A X B X C	3	0.12	-	1.09	-	0.40	-
A X B X D	2	0.31	-	0.50	-	0.43	-
A X B X E	2	0.49	-	1.17	-	0.09	-
A X C X D	3	0.02	-	1.17	-	0.09	-
A X C X E	3	0.33	-	1.01	-	0.21	-
A X D X E	3	0.28	-	1.16	-	0.51	-
B X C X D	1	0.32	-	1.65	-	0.80	-
B X C X E	1	0.74	-	0.75	-	0.05	-
B X D X E	1	0.15	-	0.33	-	0.03	-
C X D X E	1	0.05	-	0.34	-	0.00	-
A X B X C X D	-	-	-	-	-	-	-
A X B X C X E	2	0.88	-	2.69	.06	2.05	-
A X B X D X E	-	-	-	-	-	-	-
A X C X D X E	2	0.27	-	2.99	.05	1.65	-
B X C X D X E	-	-	-	-	-	-	-
A X B X C X D X E	1	0.02	-	2.58	.10	1.00	-
Constant	1	0.21	-	1.86	-	1.81	-
Error	668	-	-	-	-	-	-

APPENDIX C16
Summary of Analyses of Variance of the Content, Extension
and Control Scores of Hopes related to National Affairs ¹

Source	df	Content		Extension		Control	
		F	P	F	P	F	P
Age (A)	3	0.87	-	1.41	-	1.57	-
Gender (B)	1	0.03	-	0.64	-	0.62	-
Educational Status (C)	1	0.35	-	0.88	-	1.31	-
Optimism (D)	1	0.01	-	0.01	-	0.00	-
Religiosity (E)	1	0.45	-	3.24	.07	4.93	.02
A X B	3	0.05	-	0.88	-	1.31	-
A X C	3	0.24	-	0.88	-	1.61	-
A X D	3	0.01	-	1.01	-	1.20	-
A X E	3	0.47	-	3.06	.03	4.02	.008
B X C	1	2.23	-	3.12	.09	2.03	-
B X D	1	0.01	-	0.51	-	0.77	-
B X E	1	0.02	-	0.01	-	0.96	-
C X D	1	2.25	-	1.65	-	0.99	-
C X E	1	1.20	-	2.22	-	4.11	.04
D X E	1	5.00	.03	0.05	-	2.27	-
A X B X C	3	1.59	-	0.78	-	0.34	-
A X B X D	2	0.02	-	0.46	-	0.99	-
A X B X E	2	3.88	.02	2.03	-	1.74	-
A X C X D	3	1.33	-	1.36	-	1.07	-
A X C X E	3	0.93	-	0.41	-	0.18	-
A X D X E	3	2.73	.04	0.69	-	2.31	.07
B X C X D	1	0.83	-	2.96	.08	3.49	.06
B X C X E	1	0.01	-	2.90	.09	4.14	.04
B X D X E	1	1.45	-	5.21	.02	6.10	.01
C X D X E	1	0.11	-	2.09	-	3.63	.05
A X B X C X D	2	0.43	-	0.49	-	0.48	-
A X B X C X E	-	-	-	-	-	-	-
A X B X D X E	2	1.22	-	2.93	.05	3.11	.04
A X C X D X E	-	-	-	-	-	-	-
B X C X D X E	1	0.4	-	2.63	.10	4.01	.05
A X B X C X D X E	-	-	-	-	-	-	-
Constant	1	0.51	-	0.20	-	0.23	-
Error	668	-	-	-	-	-	-

APPENDIX C17
Summary of Analyses of Variance of the Content,
Extension and Control Scores of Overall Fears

Source	df	Content		Extension		Control	
		F	P	F	P	F	P
Age (A)	3	0.32	-	2.62	.05	0.08	-
Gender (B)	1	0.00	-	6.38	.01	0.02	-
Educational Status (C)	1	0.00	-	0.84	-	0.79	-
Optimism (D)	1	0.82	-	0.06	-	0.01	-
Religiosity (E)	1	0.73	-	0.95	-	0.23	-
A X B	3	0.93	-	2.00	-	0.94	-
A X C	3	0.35	-	0.74	-	0.14	-
A X D	3	0.47	-	0.64	-	0.42	-
A X E	3	0.18	-	1.80	-	0.51	-
B X C	1	0.19	-	1.82	-	0.05	-
B X D	1	0.33	-	1.03	-	0.72	-
B X E	1	0.43	-	3.16	.08	0.29	-
C X D	1	0.42	-	1.73	-	0.04	-
C X E	1	2.56	-	0.20	-	0.26	-
D X E	1	0.58	-	0.59	-	0.00	-
A X B X C	3	0.94	-	0.58	-	0.42	-
A X B X D	2	0.46	-	1.13	-	0.15	-
A X B X E	2	0.77	-	2.64	.07	0.11	-
A X C X D	3	0.83	-	1.56	-	0.41	-
A X C X E	3	0.83	-	0.83	-	0.32	-
A X D X E	3	0.56	-	0.92	-	0.18	-
B X C X D	1	0.02	-	0.50	-	1.74	-
B X C X E	1	0.11	-	2.62	-	0.36	-
B X D X E	1	0.13	-	5.71	.02	0.42	-
C X D X E	1	0.82	-	0.23	-	0.12	-
A X B X C X D	2	0.08	-	1.01	-	0.06	-
A X B X C X E	-	-	-	-	-	-	-
A X B X D X E	1	0.08	-	2.59	.08	0.54	-
A X C X D X E	-	-	-	-	-	-	-
B X C X D X E	1	1.05	-	2.08	-	0.00	-
A X B X C X D X E	-	-	-	-	-	-	-
Constant	1	16.56	.0005	1.29	-	5.27	.02
Error		668	-	-	-	-	-

APPENDIX C18
Summary of Analyses of Variance of the Content,
Extension and Control Scores of Fear Related to Children's Lives

Source	df	Content		Extension		Control	
		F	P	F	P	F	P
Age (A)	3	5.48	.001	0.08	-	0.73	-
Gender (B)	1	6.49	.01	0.35	-	0.22	-
Educational Status (C)	1	1.58	-	0.01	-	0.60	-
Optimism (D)	1	7.64	.006	0.35	-	0.13	-
Religiosity (E)	1	5.56	.01	0.46	-	0.14	-
A X B	3	1.72	-	0.121	-	0.33	-
A X C	3	0.36	-	0.20	-	0.45	-
A X D	3	3.37	.01	0.15	-	0.46	-
A X E	3	0.96	-	0.21	-	0.14	-
B X C	1	1.61	-	0.00	-	0.33	-
B X D	1	0.81	-	0.11	-	0.08	-
B X E	1	0.00	-	0.43	-	0.15	-
C X D	1	0.29	-	0.08	-	1.29	-
C X E	1	20.04	.0005	0.14	-	1.02	-
D X E	1	4.38	.03	0.98	-	1.56	-
A X B X C	3	0.30	-	0.01	-	0.56	-
A X B X D	2	0.23	-	0.05	-	0.46	-
A X B X E	2	3.02	.04	0.16	-	0.66	-
A X C X D	3	0.28	-	0.01	-	0.27	-
A X C X E	3	12.36	.0005	0.04	-	0.66	-
A X D X E	3	1.82	-	0.43	-	1.48	-
B X C X D	1	0.02	-	0.03	-	0.87	-
B X C X E	1	3.46	.06	0.31	-	0.94	-
B X D X E	1	1.78	-	1.07	-	0.10	-
C X D X E	1	4.43	.03	0.02	-	1.38	-
A X B X C X D	2	2.50	.08	0.02	-	1.38	-
A X B X C X E	-	-	-	-	-	-	-
A X B X D X E	2	0.78	-	0.61	-	0.48	-
A X C X D X E	-	-	-	-	-	-	-
B X C X D X E	1	3.51	.06	0.01	-	0.33	-
A X B X C X D X E	-	-	-	-	-	-	-
Constant	1	27.95	.0005	0.13	-	5.04	.02
Error	668	-	-	-	-	-	-

APPENDIX C19
Summary of Analyses of Variance of the Content,
Extension and Control Scores of Fears related to Education

Source	Content			Extension		Control	
	df	F	P	F	P	F	P
Age (A)	3	0.58	-	0.36	-	2.39	.06
Gender (B)	1	0.54	-	0.01	-	0.44	-
Educational Status (C)	1	0.01	-	0.03	-	2.21	-
Optimism (D)	1	0.24	-	0.17	-	0.04	-
Religiosity (E)	1	0.01	-	0.00	-	0.21	-
A X B	3	0.76	-	0.23	-	1.80	-
A X C	3	0.67	-	0.20	-	0.79	-
A X D	3	0.32	-	0.14	-	0.07	-
A X E	3	0.57	-	0.11	-	0.37	-
B X C	1	1.70	-	0.02	-	0.09	-
B X D	1	0.15	-	0.00	-	0.00	-
B X E	1	0.63	-	0.14	-	0.00	-
C X D	1	0.91	-	0.09	-	0.07	-
C X E	1	0.03	-	0.00	-	0.38	-
D X E	1	1.72	-	0.06	-	0.02	-
A X B X C	3	1.34	-	0.59	-	3.65	.01
A X B X D	2	0.28	-	0.04	-	0.06	-
A X B X E	2	0.30	-	0.16	-	0.34	-
A X C X D	3	0.78	-	0.83	-	0.31	-
A X C X E	3	0.32	-	0.01	-	0.14	-
A X D X E	3	1.02	-	0.17	-	0.34	-
B X C X D	1	0.18	-	0.03	-	0.08	-
B X C X E	1	0.04	-	0.11	-	0.55	-
B X D X E	1	0.38	-	0.08	-	0.20	-
C X D X E	1	3.21	.07	0.33	-	0.13	-
A X B X C X D	2	0.26	-	0.05	-	0.02	-
A X B X C X E	-	-	-	-	-	-	-
A X B X D X E	2	0.91	-	0.01	-	0.32	-
A X C X D X E	-	-	-	-	-	-	-
B X C X D X E	1	2.42	-	0.03	-	0.05	-
A X B X C X D X E	-	-	-	-	-	-	-
Constant	1	2.27	-	1.96	-	3.40	.06
Error	668	-	-	-	-	-	-

APPENDIX C20
Summary of Analyses of Variance of the Content, Extension
and Control Scores of Fears related to Extended Family

Source	Content			Extension		Control	
	df	F	P	F	P	F	P
Age (A)	3	1.28	-	0.59	-	0.98	-
Gender (B)	1	2.02	-	0.07	-	0.68	-
Educational Status (C)	1	0.58	-	0.61	-	0.04	-
Optimism (D)	1	4.11	-	0.68	-	2.29	-
Religiosity (E)	1	1.49	-	0.04	-	0.04	-
A X B	3	1.45	-	0.04	-	0.04	-
A X C	3	0.88	-	0.72	-	0.22	-
A X D	3	1.50	-	0.46	-	1.10	-
A X E	3	1.21	-	1.92	-	0.93	-
B X C	1	2.29	-	2.76	-	1.99	-
B X D	1	1.70	-	0.94	-	1.16	-
B X E	1	0.40	-	3.77	.05	0.85	-
C X D	1	1.79	-	3.55	.06	1.06	-
C X E	1	0.35	-	0.05	-	0.71	-
D X E	1	1.11	-	1.92	-	3.71	.05
A X B X C	3	1.92	-	2.51	.05	2.01	-
A X B X D	2	0.79	-	0.28	-	0.47	-
A X B X E	2	0.53	-	2.28	.10	1.63	-
A X C X D	3	0.66	-	1.33	-	0.40	-
A X C X E	3	1.44	-	0.70	-	0.99	-
A X D X E	3	0.57	-	1.50	-	1.09	-
B X C X D	1	0.84	-	2.34	-	0.38	-
B X C X E	1	1.70	-	2.57	-	2.75	.09
B X D X E	1	3.01	.08	2.32	-	1.28	-
C X D X E	1	1.75	-	0.80	-	0.40	-
A X B X C X D	-	-	-	-	-	-	-
A X B X C X E	2	0.19	-	0.59	-	0.16	-
A X B X D X E	-	-	-	-	-	-	-
A X C X D X E	2	0.96	-	0.83	-	0.79	-
B X C X D X E	-	-	-	-	-	-	-
A X B X C X D X E	1	0.55	-	0.62	-	0.37	-
Constant	1	7.32	.007	1.26	-	5.59	.01
Error	668	-	-	-	-	-	-

APPENDIX C21
Summary of Analyses of Variance of the Content,
Extension and Control Scores of Fears Related to Health

Source	df	Content		Extension		Control	
		F	P	F	P	F	P
Age (A)	3	0.38	-	0.46	-	0.95	-
Gender (B)	1	1.12	-	0.65	-	3.26	.07
Educational Status (C)	1	0.11	-	0.06	-	2.86	.09
Optimism (D)	1	0.00	-	0.00	-	0.07	-
Religiosity (E)	1	0.75	-	0.58	-	0.09	-
A X B	3	0.42	-	0.02	-	0.77	-
A X C	3	0.86	-	0.57	-	0.50	-
A X D	3	1.01	-	0.65	-	1.07	-
A X E	3	0.23	-	0.22	-	0.73	-
B X C	1	0.00	-	0.08	-	0.73	-
B X D	1	2.89	.09	1.07	-	2.09	-
B X E	1	1.02	-	0.13	-	2.94	.08
C X D	1	0.08	-	0.04	-	0.01	-
C X E	1	4.16	.04	0.28	-	0.03	-
D X E	1	0.51	-	0.00	-	0.84	-
A X B X C	3	0.24	-	0.41	-	1.95	-
A X B X D	2	1.65	-	0.47	-	0.96	-
A X B X E	2	0.66	-	0.01	-	0.90	-
A X C X D	1	2.16	.09	1.73	-	2.09	.10
A X C X E	3	2.63	.04	0.24	-	0.03	-
A X D X E	3	0.79	-	0.29	-	0.58	-
B X C X D	1	1.71	-	0.91	-	2.13	-
B X C X E	1	0.16	-	0.22	-	0.31	-
B X D X E	1	0.35	-	0.38	-	0.01	-
C X D X E	1	0.06	-	0.08	-	0.00	-
A X B X C X D	2	1.27	-	0.40	-	0.90	-
A X B X C X E	-	-	-	-	-	-	-
A X B X D X E	2	0.60	-	0.44	-	0.07	-
A X C X D X E	-	-	-	-	-	-	-
B X C X D X E	1	0.58	-	0.05	-	0.04	-
A X B X C X D X E	-	-	-	-	-	-	-
Constant	1	2.86	.09	0.27	-	0.19	-
Error	668	-	-	-	-	-	-

APPENDIX C22
Summary of Analyses of Variance of the Content, Extension
and Control Scores of Fears related to Interpersonal Relationship

Source	df	Content		Extension		Control	
		F	P	F	P	F	P
Age (A)	3	0.09	-	0.01	-	0.64	-
Gender (B)	1	0.08	-	0.02	-	0.35	-
Educational Status (C)	1	0.06	-	0.00	-	0.41	-
Optimism (D)	1	0.53	-	0.00	-	0.00	-
Religiosity (E)	1	0.69	-	0.00	-	0.01	-
A X B	3	0.31	-	0.03	-	0.70	-
A X C	3	0.10	-	0.29	-	0.04	-
A X D	3	0.23	-	0.08	-	0.51	-
A X E	3	0.13	-	0.01	-	0.94	-
B X C	1	0.01	-	0.10	-	0.00	-
B X D	1	0.15	-	0.00	-	0.08	-
B X E	1	0.65	-	0.00	-	0.01	-
C X D	1	0.03	-	0.09	-	0.13	-
C X E	1	0.00	-	0.00	-	0.47	-
D X E	1	1.19	-	0.00	-	0.31	-
A X B X C	3	0.23	-	0.28	-	0.61	-
A X B X D	2	0.22	-	0.05	-	0.21	-
A X B X E	2	0.46	-	0.06	-	0.03	-
A X C X D	3	0.03	-	0.09	-	0.22	-
A X C X E	3	0.18	-	0.00	-	0.30	-
A X D X E	3	0.66	-	0.17	-	1.31	-
B X C X D	1	0.07	-	0.00	-	0.09	-
B X C X E	1	0.00	-	0.01	-	0.01	-
B X D X E	1	0.07	-	0.00	-	0.00	-
C X D X E	1	2.01	-	0.00	-	4.49	.03
A X B X C X D	2	0.05	-	0.07	-	0.50	-
A X B X C X E	-	-	-	-	-	-	-
A X B X D X E	2	0.56	-	0.21	-	0.02	-
A X C X D X E	-	-	-	-	-	-	-
B X C X D X E	1	0.00	-	0.00	-	0.00	-
A X B X C X D X E	-	-	-	-	-	-	-
Constant	1	1.67	-	0.03	-	0.06	-
Error	668	-	-	-	-	-	-

APPENDIX C23
Summary of Analyses of Variance of the Content,
Extension and Control Scores of Fears related to Leisure

Source	Content			Extension		Control	
	df	F	P	F	P	F	P
Age (A)	3	0.01	-	0.09	-	2.08	.10
Gender (B)	1	0.00	-	0.03	-	2.07	.10
Educational Status (C)	1	0.00	-	0.09	-	9.75	.002
Optimism (D)	1	0.00	-	0.04	-	5.00	.02
Religiosity (E)	1	0.00	-	0.00	-	7.82	.005
A X B	3	0.03	-	0.50	-	1.32	-
A X C	3	0.11	-	0.22	-	3.16	.02
A X D	3	0.03	-	0.04	-	1.87	-
A X E	3	0.02	-	0.02	-	3.01	.03
B X C	1	0.12	-	0.02	-	1.81	-
B X D	1	0.00	-	0.00	-	0.28	-
B X E	1	0.11	-	0.00	-	0.54	-
C X D	1	0.11	-	0.12	-	1.79	-
C X E	1	0.00	-	0.08	-	16.91	.000
D X E	1	0.00	-	0.00	-	0.15	-
A X B X C	3	0.14	-	0.23	-	0.96	-
A X B X D	2	0.01	-	0.06	-	0.15	-
A X B X E	2	0.32	-	0.11	-	0.41	-
A X C X D	3	0.12	-	0.22	-	0.95	-
A X C X E	3	0.00	-	0.00	-	10.19	.000
A X D X E	3	0.29	-	0.09	-	0.35	-
B X C X D	1	0.00	-	0.00	-	0.00	-
B X C X E	1	0.02	-	0.00	-	0.00	-
B X D X E	1	0.00	-	0.00	-	0.54	.46
C X D X E	1	0.06	-	0.00	-	0.00	-
A X B X C X D	-	-	-	-	-	-	-
A X B X C X E	2	0.10	-	0.17	-	0.02	-
A X B X D X E	2	0.06	-	0.05	-	0.40	-
A X C X D X E	-	-	-	-	-	-	-
B X C X D X E	1	0.00	-	0.00	-	0.00	-
A X B X C X D X E	-	-	-	-	-	-	-
Constant	1	0.00	-	0.00	-	7.16	.008
Error	668	-	-	-	-	-	-

APPENDIX C24
Summary of Analyses of Variance of the Content,
Extension and Control Scores of Fears Related to Marriage

Source	df	Content		Extension		Control	
		F	P	F	P	F	P
Age (A)	3	0.69	-	7.30	.0005	2.72	.04
Gender (B)	1	0.11	-	0.24	-	0.48	-
Educational Status (C)	1	1.70	-	2.54	-	0.27	-
Optimism (D)	1	0.00	-	0.01	-	0.10	-
Religiosity (E)	1	0.49	-	4.03	.04	4.55	.03
A X B	3	0.72	-	0.64	-	0.41	-
A X C	3	0.39	-	5.01	.002	0.16	-
A X D	3	0.16	-	3.21	.002	0.84	-
A X E	3	0.72	-	4.95	.0002	4.03	.0007
B X C	1	0.01	-	3.14	.07	0.01	-
B X D	1	0.04	-	2.83	.09	0.01	-
B X E	1	0.43	-	10.24	.001	0.21	-
C X D	1	0.00	-	5.83	.01	0.58	-
C X E	1	0.85	-	0.28	-	0.97	-
D X E	1	0.32	-	1.97	-	0.40	-
A X B X C	3	0.56	-	1.89	-	0.08	-
A X B X D	2	0.09	-	5.39	.005	2.44	.08
A X B X E	2	0.87	-	12.39	.005	4.55	.01
A X C X D	3	0.65	-	5.85	.001	1.18	-
A X C X E	3	0.22	-	5.22	.001	1.81	-
A X D X E	3	1.55	-	2.20	.08	3.19	-
B X C X D	1	1.09	-	2.53	-	0.59	-
B X C X E	1	0.36	-	32.02	.0005	9.51	.002
B X D X E	1	0.25	-	5.25	.02	0.04	-
C X D X E	1	1.21	-	1.35	-	7.85	.005
A X B X C X D	1	0.61	-	4.39	.01	1.91	-
A X B X C X E	-	-	-	-	-	-	-
A X B X D X E	2	1.08	-	4.89	-	1.11	-
A X C X D X E	-	-	-	-	-	-	-
B X C X D X E	1	1.06	-	18.32	.0005	0.99	-
A X B X C X D X E	-	-	-	-	-	-	-
Constant	1	3.33	.06	1.47	-	1.37	-
Error	668	-	-	-	-	-	-

APPENDIX G25
Summary of Analyses of Variance of the Content,
Extension and Control Scores of Fear Related to Occupation

Source	Content		Extension		Control		
	df	F	P	F	P	F	P
Age (A)	3	1.16	-	1.33	-	1.55	-
Gender (B)	1	0.03	-	0.19	-	0.00	-
Educational Status (C)	1	0.19	-	0.89	-	0.18	-
Optimism (D)	1	0.02	-	0.38	-	0.19	-
Religiosity (E)	1	0.05	-	0.27	-	0.01	-
A X B	3	0.48	-	0.32	-	0.96	-
A X C	3	0.16	-	0.34	-	1.42	-
A X D	3	0.03	-	0.43	-	0.49	-
A X E	3	0.44	-	0.70	-	1.88	-
B X C	1	1.44	-	1.29	-	3.51	.06
B X D	1	0.11	-	0.43	-	0.01	-
B X E	1	0.24	-	0.08	-	0.38	-
C X D	1	0.37	-	0.76	-	1.90	-
C X E	1	0.60	-	0.49	-	0.36	-
D X E	1	0.14	-	0.00	-	0.10	-
A X B X C	3	0.28	-	0.92	-	0.71	-
A X B X D	2	0.37	-	2.53	.08	0.78	-
A X B X E	2	0.16	-	0.47	-	0.48	-
A X C X D	3	0.70	-	0.92	-	2.20	.08
A X C X E	3	1.38	-	2.40	.06	2.65	.04
A X D X E	3	0.92	-	1.21	-	2.46	.06
B X C X D	1	0.49	-	0.76	-	1.19	-
B X C X E	1	0.42	-	1.68	-	1.83	-
B X D X E		0.73	-	1.59	-	5.90	.01
C X D X E	1	0.65	-	2.13	-	3.22	.07
A X B X C X D	2	0.43	-	1.12	-	1.32	-
A X B X C X E	-	-	-	-	-	-	-
A X B X D X E	2	1.42	-	2.30	.10	4.56	.01
A X C X D X E	-	-	-	-	-	-	-
B X C X D X E	1	1.79	-	4.03	.04	4.04	.04
A X B X C X D X E	-	-	-	-	-	-	-
Constant	1	1.33	-	2.20	-	2.79	.09
Error	668	-	-	-	-	-	-

APPENDIX C26
Summary of Analyses of Variance of the Content,
Extension and Control Scores of Fears Related to Property

Source	df	Content		Extension		Control	
		F	P	F	P	F	P
Age (A)	3	5.26	.001	7.22	.000	1.71	-
Gender (B)	1	4.36	.03	13.94	.000	1.14	-
Educational Status (C)	1	0.14	-	0.76	-	0.30	-
Optimism (D)	1	0.63	-	2.52	-	0.40	-
Religiosity (E)	1	3.63	.05	2.93	.08	0.79	-
A X B	3	0.84	-	5.63	.001	0.61	-
A X C	3	1.64	-	6.56	.000	0.72	-
A X D	3	1.12	-	5.60	.001	1.74	-
A X E	3	1.50	-	5.44	.001	1.27	-
B X C	1	0.24	-	0.30	-	0.17	-
B X D	1	0.30	-	2.55	-	0.15	-
B X E	1	4.79	.02	5.66	.01	4.46	.03
C X D	1	0.21	-	1.60	-	1.80	-
C X E	1	0.20	-	0.36	-	1.23	-
D X E	1	1.33	-	0.81	-	0.95	-
A X B X C	3	1.23	-	4.77	.003	1.20	-
A X B X D	2	0.78	-	6.58	.001	1.21	-
A X B X E	2	4.49	.01	13.18	.000	4.16	.01
A X C X D	3	2.18	.08	8.33	.000	2.49	.06
A X C X E	3	1.05	-	3.22	.02	1.21	-
A X D X E	3	0.67	-	0.72	-	0.86	-
B X C X D	1	0.32	-	3.42	.06	0.14	-
B X C X E	1	7.27	.007	21.52	.000	7.20	.007
B X D X E	1	0.07	-	1.24	-	0.03	-
C X D X E	1	0.39	-	0.37	-	1.39	-
A X B X C X D	2	0.93	-	4.88	.008	0.47	-
A X B X C X E	-	-	-	-	-	-	-
A X B X D X E	2	0.76	-	4.69	.009	1.21	-
A X C X D X E	-	-	-	-	-	-	-
B X C X D X E	1	0.06	-	8.45	.004	0.65	-
A X B X C X D X E	-	-	-	-	-	-	-
Constant	1	0.39	-	0.37	-	1.39	-
Error	668	-	-	-	-	-	-

APPENDIX C27
Summary of Analyses of Variance of the Content,
Extension and Control Scores of Fears Related to Religion

Source	df	Content		Extension		Control	
		F	P	F	P	F	P
Age (A)	3	0.64	-	5.77	.001	0.28	-
Gender (B)	1	0.36	-	0.34	-	0.01	-
Educational Status (C)	1	0.93	-	0.04	-	0.96	-
Optimism (D)	1	0.86	-	1.88	-	0.07	-
Religiosity (E)	1	0.00	-	0.00	-	0.01	-
A X B	3	0.75	-	1.63	-	0.16	-
A X C	3	0.80	-	6.72	.000	0.50	-
A X D	3	0.29	-	0.25	-	0.200	-
A X E	3	0.56	-	5.27	.001	0.04	-
B X C	1	0.40	-	3.14	.07	0.57	-
B X D	1	0.63	-	0.37	-	0.00	-
B X E	1	0.01	-	3.47	.06	1.95	-
C X D	1	0.97	-	1.74	-	0.15	-
C X E	1	0.01	-	0.45	-	0.04	-
D X E	1	0.01	-	6.72	.01	4.12	.04
A X B X C	3	0.79	-	6.86	.000	0.14	-
A X B X D	2	1.40	-	0.93	-	0.00	-
A X B X E	2	0.20	-	7.76	.000	2.14	-
A X C X D	3	0.48	-	5.09	.002	0.008	-
A X C X E	3	0.25	-	3.81	.01	0.52	-
A X D X E	3	0.30	-	3.37	.01	1.71	-
B X C X D	1	1.32	-	0.40	-	0.14	-
B X C X E	1	0.01	-	9.45	.002	0.31	-
B X D X E	1	0.28	-	3.81	.05	0.08	-
C X D X E	1	0.14	-	9.69	.002	0.01	-
A X B X C X D	2	1.99	-	8.19	.000	0.10	-
A X B X C X E	-	-	-	-	-	-	-
A X B X D X E	2	0.02	-	6.74	.001	0.02	-
A X C X D X E	-	-	-	-	-	-	-
B X C X D X E	1	0.69	-	10.38	.001	0.04	-
A X B X C X D X E	-	-	-	-	-	-	-
Constant	1	0.60	-	0.03	-	0.63	-
Error	668	-	-	-	-	-	-

APPENDIX C28
Summary of Analyses of Variance of the Content,
Extension and Control Scores of Fears Related to Retirement

Source	df	Content		Extension		Control	
		F	P	F	P	F	P
Age (A)	3	0.33	-	7.75	.000	0.56	-
Gender (B)	1	0.60	-	2.38	-	0.48	-
Educational Status (C)	1	5.31	.02	0.01	-	7.87	.005
Optimism (D)	1	0.65	-	3.87	.04	1.24	-
Religiosity (E)	1	0.11	-	1.56	-	0.32	-
A X B	3	0.10	-	4.73	.003	0.17	-
A X C	3	2.11	.09	12.14	.000	3.63	.01
A X D	3	0.32	-	4.99	.002	0.59	-
A X E	3	0.12	-	3.10	.000	0.35	-
B X C	1	0.42	-	10.49	.001	0.92	-
B X D	1	0.22	-	8.11	.005	1.43	-
B X E	1	0.22	-	3.41	.06	0.39	-
C X D	1	0.56	-	5.80	.01	0.73	-
C X E	1	3.42	.06	0.25	-	11.42	.001
D X E	1	1.80	-	0.09	.003	14.43	.000
A X B X C	3	0.25	-	11.12	.000	0.79	-
A X B X D	2	0.07	-	0.88	.41	0.70	-
A X B X E	2	0.10	-	6.72	.001	0.83	-
A X C X D	3	0.42	-	5.65	.001	0.49	-
A X C X E	3	1.79	-	8.45	.000	4.43	.004
A X D X E	3	1.59	-	9.27	.000	6.83	.000
B X C X D	1	0.07	-	4.85	.02	0.65	-
B X C X E	1	0.19	-	12.67	.000	0.17	-
B X D X E	1	0.38	-	15.98	.000	4.98	.02
C X D X E	1	0.44	-	22.67	.000	1.72	-
A X B X C X D	2	0.05	-	2.98	.05	0.14	-
A X B X C X E	-	-	-	-	-	-	-
A X B X D X E	2	0.47	-	11.28	.000	1.67	-
A X C X D X E	-	-	-	-	-	-	-
B X C X D X E	1	0.37	-	22.13	.000	0.65	-
A X B X C X D X E	-	-	-	-	-	-	-
Constant	1	1.04	-	5.43	.02	2.03	-
Error	668	-	-	-	-	-	-

APPENDIX C29
Summary of Analyses of Variance of the Content,
Extension and Control Scores of Fears related to Self

Source	df	Content		Extension		Control	
		F	P	F	P	F	P
Age (A)	3	0.80	-	1.76	-	0.34	-
Gender (B)	1	0.08	-	1.17	-	0.00	-
Educational Status (C)	1	0.00	-	0.00	-	0.00	-
Optimism (D)	1	0.06	-	0.13	-	0.71	-
Religiosity (E)	1	0.04	-	0.42	-	0.02	-
A X B	3	1.02	-	1.23	-	0.32	-
A X C	3	0.19	-	0.14	-	0.16	-
A X D	3	0.13	-	0.70	-	0.13	-
A X E	3	0.27	-	2.39	.06	0.31	-
B X C	1	0.00	-	0.01	-	0.41	-
B X D	1	0.04	-	1.01	-	0.18	-
B X E	1	0.26	-	1.40	-	1.05	-
C X D	1	0.02	-	0.52	-	0.64	-
C X E	1	0.18	-	0.07	-	0.04	-
D X E	1	0.46	-	0.30	-	0.33	-
A X B X C	3	0.05	-	0.16	-	0.21	-
A X B X D	2	0.03	-	1.16	-	0.11	-
A X B X E	2	0.31	-	2.92	.05	0.82	-
A X C X D	3	0.21	-	0.16	-	1.49	-
A X C X E	3	0.02	-	0.56	-	0.10	-
A X D X E	3	0.67	-	0.41	-	0.65	-
B X C X D	1	0.02	-	0.00	-	0.43	-
B X C X E	1	0.24	-	4.08	.04	0.00	-
B X D X E	1	0.08	-	0.06	.08	0.13	-
C X D X E	1	1.28	-	1.01	-	1.93	-
A X B X C X D	2	0.01	-	0.34	-	0.10	-
A X B X C X E	-	-	-	-	-	-	-
A X B X D X E	2	0.07	-	0.26	-	0.11	-
A X C X D X E	-	-	-	-	-	-	-
B X C X D X E	1	0.41	-	0.23	-	0.00	-
A X B X C X D X E	-	-	-	-	-	-	-
Constant	1	1.02	-	0.01	-	2.58	.10
Error	668	-	-	-	-	-	-

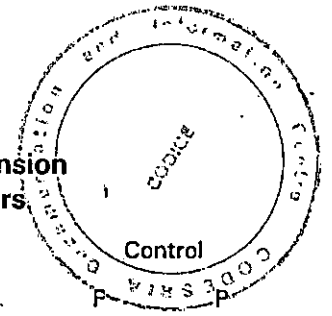
APPENDIX C30
Summary of Analyses of Variance of the Content,
Extension and Control Scores of Fears related to Social Services

Source	Content			Extension		Control	
	df	F	P	F	P	F	P
Age (A)	3	0.08	-	4.97	.002	0.04	-
Gender (B)	1	1.07	-	0.07	-	3.16	.07
Educational Status (C)	1	8.02	.005	4.47	.037	11.65	.001
Optimism (D)	1	0.00	-	1.96	-	0.02	-
Religiosity (E)	1	2.07	-	0.01	-	1.19	-
A X B	3	0.42	-	5.84	.001	1.14	-
A X C	3	1.99	-	3.93	.008	3.25	.02
A X D	3	0.04	-	3.25	.02	0.01	-
A X E	3	0.91	-	0.05	-	0.54	-
B X C	1	5.45	.02	0.02	-	5.57	.01
B X D	1	0.01	-	0.00	-	0.00	-
B X E	1	0.04	-	0.01	-	0.03	-
C X D	1	2.47	-	0.70	-	2.91	.08
C X E	1	3.13	.07	0.00	-	8.60	.003
D X E	1	11.99	.001	0.02	-	18.01	.0005
A X B X C	3	2.02	.10	4.13	.006	2.01	-
A X B X D	2	0.00	-	2.29	.10	0.002	-
A X B X E	2	0.11	-	0.15	-	0.17	-
A X C X D	3	0.97	-	3.86	.009	1.15	-
A X C X E	3	2.22	.08	0.01	-	6.05	.0005
A X D X E	3	4.73	.003	0.13	-	6.62	.0005
B X C X D	1	0.01	-	0.00	-	0.00	-
B X C X E	1	0.11	-	0.02	-	0.09	-
B X D X E	1	0.01	-	0.00	-	0.01	-
C X D X E	1	0.04	-	-	-	0.00	-
A X B X C X D	2	0.01	-	3.21	.04	0.13	-
A X B X C X E	-	-	-	-	-	-	-
A X B X D X E	2	0.03	-	0.14	-	0.21	-
A X C X D X E	-	-	-	-	-	-	-
B X C X D X E	1	0.03	-	0.01	-	0.01	-
A X B X C X D X E	-	-	-	-	-	-	-
Constant	1	0.04	-	3.69	.05	0.07	-
Error	668	-	-	-	-	-	-

APPENDIX C31
Summary of Analyses of Variance of the Content,
Extension and Control Scores of Fears Related to Travel

Source	df	Content		Extension		Control	
		F	P	F	P	F	P
Age (A)	3	2.45	.06	1.48	-	0.14	-
Gender (B)	1	1.51	-	0.33	-	0.21	-
Educational Status (C)	1	0.31	-	0.01	-	0.01	-
Optimism (D)	1	4.04	.04	0.01	-	0.04	-
Religiosity (E)	1	1.49	-	0.08	-	0.00	-
A X B	3	0.97	-	0.33	-	0.43	-
A X C	3	2.06	.10	0.37	-	0.14	-
A X D	3	1.22	-	0.04	-	0.07	-
A X E	3	2.98	.03	0.67	-	0.24	-
B X C	1	0.32	-	0.00	-	0.01	-
B X D	1	0.74	-	0.00	-	0.00	-
B X E	1	0.28	-	1.01	-	0.59	-
C X D	1	0.02	-	0.16	-	0.29	-
C X E	1	0.00	-	0.02	-	0.01	-
D X E	1	0.10	-	0.05	-	0.19	-
A X B X C	3	0.90	-	0.34	-	0.05	-
A X B X D	2	1.55	-	0.06	-	0.24	-
A X B X E	2	6.07	.002	0.51	-	0.30	-
A X C X D	3	1.16	-	0.14	-	0.03	-
A X C X E	3	1.94	-	0.45	-	0.28	-
A X D X E	3	3.76	.01	0.05	-	0.42	-
B X C X D	1	0.46	-	0.00	-	0.09	-
B X C X E	1	6.64	.01	2.62	.10	0.27	-
B X D X E	1	1.42	-	0.00	-	0.00	-
C X D X E	1	1.59	-	0.02	-	0.75	-
A X B X C X D	2	1.30	-	0.10	-	0.8	-
A X B X C X E	-	-	-	-	-	-	-
A X B X D X E	2	3.92	.02	0.02	-	0.23	-
A X C X D X E	-	-	-	-	-	-	-
B X C X D X E	1	2.22	-	0.00	-	0.42	-
A X B X C X D X E	-	-	-	-	-	-	-
Constant	1	0.78	-	0.00	-	0.02	-
Error	668	-	-	-	-	-	-

APPENDIX C32
Summary of Analyses of Variance of the Content, Extension
and Control Scores of Fears related to National Affairs



Source	df	Content		Extension		Control	
		F	P	F	P	F	P
Age (A)	3	0.46	-	1.02	-	0.09	-
Gender (B)	1	0.01	-	1.15	-	0.00	-
Educational Status (C)	1	2.47	-	0.00	-	2.46	-
Optimism (D)	1	0.56	-	0.16	-	0.88	-
Religiosity (E)	1	0.12	-	0.17	-	0.00	-
A X B	3	1.27	-	0.55	-	1.61	-
A X C	3	0.53	-	0.15	-	0.66	-
A X D	3	1.30	-	0.15	-	0.46	-
A X E	3	0.21	-	0.65	-	0.32	-
B X C	1	1.24	-	0.51	-	1.87	-
B X D	1	0.01	-	0.16	-	0.01	-
B X E	1	6.40	.01	0.05	-	6.43	.01
C X D	1	2.62	.10	0.07	-	2.56	-
C X E	1	0.01	-	0.11	-	0.67	-
D X E	1	4.87	.02	0.49	-	4.39	.03
A X B X C	3	1.66	-	0.35	-	2.41	.06
A X B X D	2	1.14	-	0.12	-	0.74	-
A X B X E	2	5.94	.003	2.87	.05	10.31	.000
A X C X D	3	0.97	-	0.13	-	0.76	-
A X C X E	3	0.01	-	0.48	-	0.06	-
A X D X E	3	2.20	.08	0.37	-	1.90	-
B X C X D	1	0.00	-	0.03	-	0.02	-
B X C X E	1	0.21	-	0.95	-	0.16	-
B X D X E	1	0.00	-	0.10	-	0.06	-
C X D X E	1	0.02	-	0.10	-	0.06	-
A X B X C X D	2	0.77	-	1.36	-	0.48	-
A X B X C X E	-	-	-	-	-	-	-
A X B X D X E	2	0.00	-	0.26	-	0.01	-
A X C X D X E	-	-	-	-	-	-	-
B X C X D X E	1	0.03	-	0.61	-	0.00	-
A X B X C X D X E	-	-	-	-	-	-	-
Constant	1	5.15	0.2	0.01	-	6.79	.009
Error	668	-	-	-	-	-	-