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AND AGING UPON POLITICAL BEHAVIOR:  
A COHORT ANALYSIS OF AMERICAN ATTITUDES  
TOWARD FOREIGN POLICY, 1946-1966

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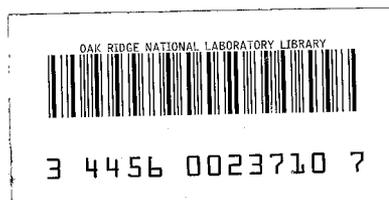
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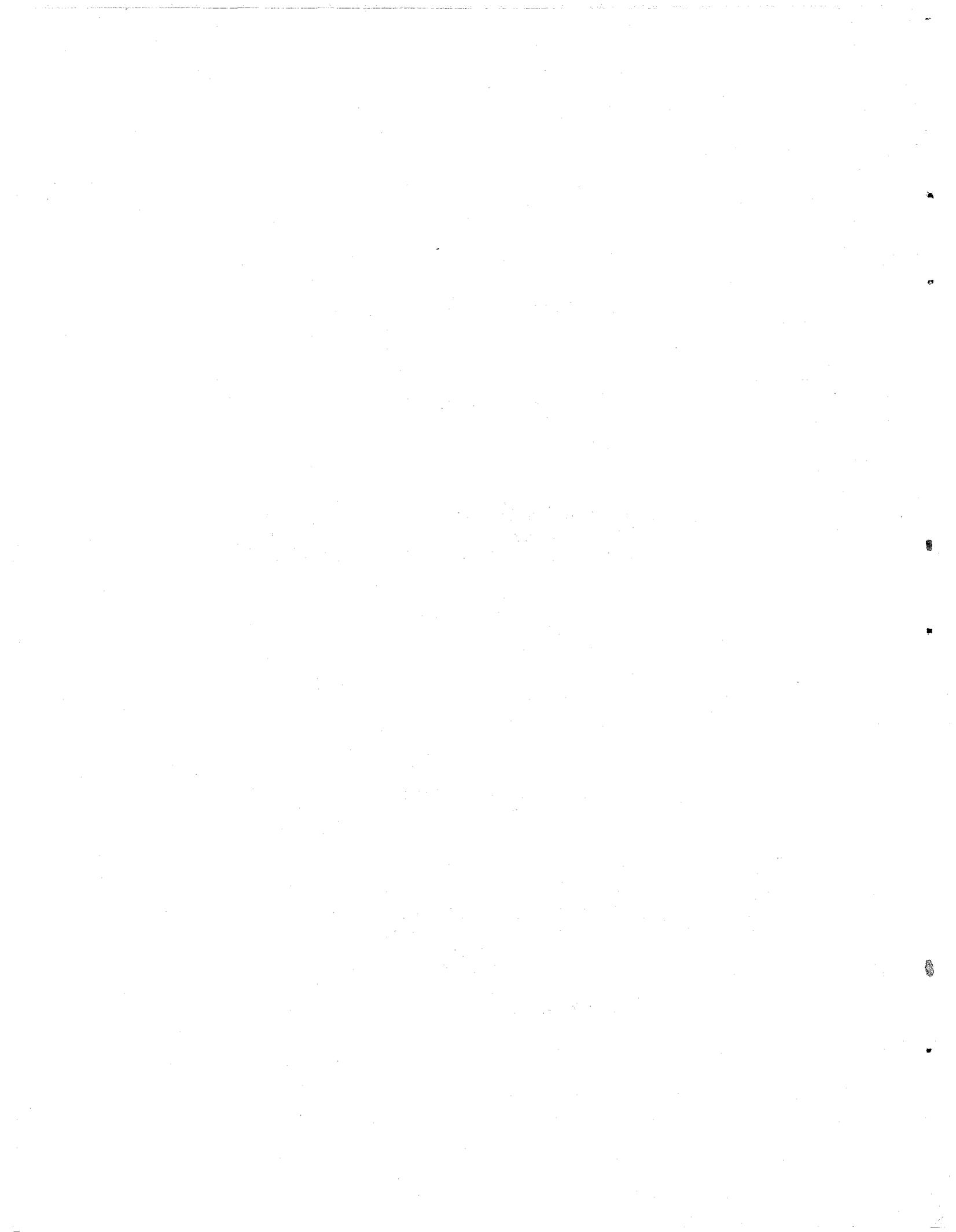
THE ALTERNATIVE EFFECTS OF GENERATIONS AND AGING UPON  
POLITICAL BEHAVIOR: A COHORT ANALYSIS OF AMERICAN  
ATTITUDES TOWARD FOREIGN POLICY, 1946-1966

Neal E. Cutler

DECEMBER 1968

OAK RIDGE NATIONAL LABORATORY  
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## ABSTRACT

THE ALTERNATIVE EFFECTS OF  
GENERATIONS AND AGING UPON POLITICAL BEHAVIOR:  
A COHORT ANALYSIS OF AMERICAN ATTITUDES TOWARD FOREIGN POLICY, 1946-1966

NEAL EVAN CUTLER

This study of the influence of age upon patterns of political behavior has two basic purposes. The first is to empirically confront the power of the two alternative explanations of observed age differences: the aging or life-cycle process versus the generational or historical process. The second purpose is to describe and demonstrate cohort analysis, a methodological orientation first developed by demographers which can be successfully employed in the secondary analysis of archival survey data to derive longitudinal patterns of political behavior.

The study of age differences is an important aspect of how attitudes and beliefs become socialized for members of a political system. The often observed conservatism of older people may be a function of such gerontological factors as decline in mental abilities, constriction of time perspective, development of psychological rigidity, or disengagement from the political system. Such behavior, however, can also be attributed to generational factors: it may well be that the values of older generational groups have not changed, but that the direction of society has been toward greater liberalism.

Research on these alternative influences of age requires longitudinal data. With panel studies in extremely short supply, the secondary analysis of archival survey data facilitates the required generational analysis. In

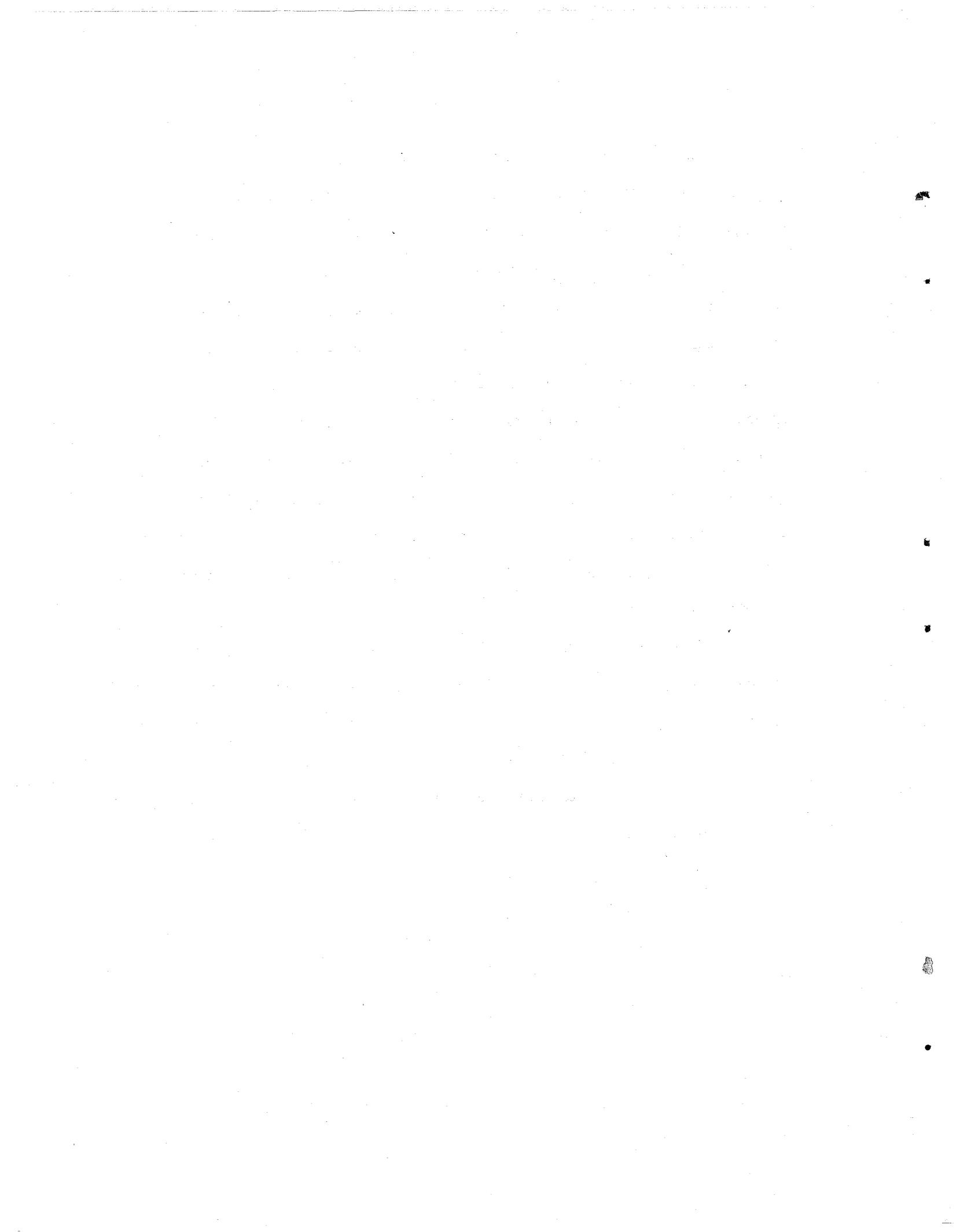
this study, cohort analysis is applied to a survey data bank containing over one hundred American national sample surveys, covering the years 1946-1966. The specific data retrieved from this data bank are organized into twelve foreign policy attitudinal question-sets measured across the twenty-year period. Thus, in addition to the primary purposes noted above, the present study focuses upon two research thrusts of current interest to political scientists: the development of techniques for the secondary analysis of large data banks, and the analysis of what one writer has called "the domestic sources of foreign policy."

Among the findings which this analysis of foreign policy attitudes yields is that neither the aging process (life-stage) nor the generational succession (cohort) interpretations of the age variable explains all of the observed differences; rather, each interpretation accounts for some of the variance. The generational cohorts, however, provide a relatively stronger explanation than do the life-stage groups. Controls for sex and education do not alter the relative power of the life-stage and cohort explanations.

Specifically, for example, there is a trend toward the increasing salience of foreign policy matters for the American public; that is, the more recent the generational cohort, the higher the level of foreign policy salience. There is a historically decreasing trend in negative images and perceptions of the Soviet Union, but a corresponding increase in the level of more generalized negative expectations emanating from the environment of foreign policy and international relations, including, for example, an increase in the expectation of war.

Specific policy evaluations and preferences also yield a number of identifiable trends associated with generational cohorts. Across the four policy preference question-sets included in this study, there has been a trend on the part of the historically oldest cohort toward increasing support for isolationist and unilateral-aggressive foreign policies; this is demonstrated, for example, by an upward trend in the advocacy of war by this earliest cohort. While the most recent cohort also possesses an upward trend in advocacy of war, there is also a trend toward the greater endorsement of a variety of foreign policy programs; for example, those individuals who were about twenty years of age in 1945 are quite internationalist in their orientations and support policies of foreign aid, maintenance of American military preparedness, and collective security agreements.

The empirical location of generational and aging process patterns in the foreign policy attitudes demonstrates the significance and utility of cohort analysis of longitudinal data sets. It is the argument of this study that the understanding of patterns of political behavior in many domains would be significantly increased by research employing the analytic model used here.



## ACKNOWLEDGMENTS

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Neal Evan Cutler

Oak Ridge, Tennessee

August, 1968

## TABLE OF CONTENTS

	page
ABSTRACT . . . . .	iii
ACKNOWLEDGMENTS . . . . .	vii
LIST OF FIGURES, TABLES, AND GRAPHS . . . . .	xiii
CHAPTER ONE: INTRODUCTION . . . . .	1
1.1 Background of the Study . . . . .	3
1.2 Structure of the Study . . . . .	12
CHAPTER TWO: THE CONCEPT OF AGE: GENERATIONS AND THE AGING PROCESS . . . . .	19
2.1 Introduction: The Conflict of Explanations . . . . .	19
2.2 Political Behavior as a Function of Generations . . . . .	23
2.2.1 Generations and Cohorts . . . . .	26
2.2.2 Cohorts and Political Socialization . . . . .	29
2.2.3 Research on the Impact of Generations on Political Behavior . . . . .	32
2.3 Behavior as a Function of the Aging Process . . . . .	48
2.3.1 Rigidity, Dogmatism, and Conservatism . . . . .	50
2.3.2 Disengagement . . . . .	55
2.3.3 Time Perspectives . . . . .	60
2.4 Summary . . . . .	66
CHAPTER THREE: APPROACHES TO THE STUDY OF "ATTITUDE" AND "FOREIGN POLICY" . . . . .	70
3.1 Introduction: The Choice of Domain . . . . .	70
3.1.1 Social Reasons: The Task of Social Forecasting . . . . .	71

	page
3.1.2 Scientific Reasons: The Psychology of Unstructured Situations . . . . .	80
3.2 Definitions of Major Concepts . . . . .	90
3.2.1 "Attitude" . . . . .	91
3.2.2 "Foreign Policy" . . . . .	103
3.3 A Paradigm for the Study of Public Policy Attitudes . . . . .	113
3.4 Summary . . . . .	119
 CHAPTER FOUR: THE MEASUREMENT OF GENERATIONAL AND AGING PROCESS EFFECTS . . . . .	 121
4.1 Introduction: Cohort Analysis, A Technique for the Developmental Analysis of Behavioral Change . . . . .	121
4.1.1 The Panel Study . . . . .	122
4.1.2 Cohort Analysis in Demography . . . . .	124
4.1.3 Cohort Analysis in Survey Research . . . . .	126
4.2 The Mechanics of Cohort Analysis . . . . .	131
4.2.1 An Empirical Example . . . . .	131
4.2.2 Some Decisions Pertaining to the Application of Cohort Analysis . . . . .	139
4.2.3 Which Cohorts and Life-Stages to Analyze? . . . . .	145
4.3 Patterns of Intra-Cohort Variation: The Matter of Control Variables . . . . .	149
4.4 Summary: Cohort Analysis and Political Science . . . . .	153
4.4.1 Permutations of the Method of Cohort Analysis . . . . .	153
4.4.2 Life Processes and Political Processes . . . . .	156

	page
CHAPTER FIVE: THE OPERATIONALIZATION OF FOREIGN POLICY ATTITUDES . . . . .	161
5.1 Introduction: The Secondary Analysis of Survey Data . . . . .	161
5.2 The Oak Ridge National Laboratory Survey Data Bank . . . . .	162
5.3 The Categorization of Foreign Policy Attitudes . . . . .	168
5.4 Selection of Items for Analysis: From Data Bank to Data Base . . . . .	174
5.5 Description of the Data Base for this Study . .	179
5.5.1 Content of the Question-Sets . . . . .	181
5.5.2 Allocation of Question-Sets to the Public Policy Attitude Paradigm . . . . .	185
5.6 Summary . . . . .	192
CHAPTER SIX: STATISTICAL TRANSFORMATION AND REDUCTION OF DATA . . . . .	196
6.1 Introduction . . . . .	196
6.2 Previous Investigations of Socio-political Attitude Trends . . . . .	198
6.3 Tabulation and Transformation of Data . . . . .	203
6.4 Data Reduction Procedures . . . . .	206
6.5 Statistical Detection of Age Effects: Mean Deviations and Polynomial Regressions . . . . .	209
6.6 A Short Note on the Non-use of Statistical Tests . . . . .	215
CHAPTER SEVEN: COHORT EFFECTS . . . . .	219
7.1 Introduction . . . . .	219
7.2 Cohort Effects in Single Attitude Trends . . . . .	226

	page
7.3 Cohort Effects in Multiple Attitude Trends . . .	249
7.4 Multiple Attitude Cohort Profiles . . . . .	256
7.4.1 Construction of the Attribute-Space . . .	257
7.4.2 Interpretation of the Attribute-Space . .	263
CHAPTER EIGHT: LIFE-STAGE EFFECTS . . . . .	268
8.1 Introduction . . . . .	268
8.2 Life-Stage Effects in Single Attitude Trends . .	270
8.3 Life-Stage Effects in Multiple Attitude Trends . . . . .	299
8.4 Multiple Attitude Life-Stage Profiles . . . . .	306
CHAPTER NINE: THE CONFRONTATION OF THE AGING AND GENERATIONAL EXPLANATIONS . . . . .	314
9.1 Introduction . . . . .	314
9.2 The Relative Strength of the Cohort and Life-Stage Effects . . . . .	318
9.3 The Relative Saturation of the Cohort and Life-Stage Effects . . . . .	335
9.4 Summary: Cohort versus Life-Stage . . . . .	345
CHAPTER TEN: THE GENERALITY OF DATA AND METHOD . . . . .	351
10.1 Introduction . . . . .	351
10.2 Distribution of Age Effects in the Public Policy Attitude Paradigm . . . . .	353
10.3 Empirical Findings and General Propositions . . . .	358
10.4 The Future of Cohort Analysis in Political Science . . . . .	364
10.4.1 The Empirical Scenario . . . . .	366

## LIST OF FIGURES, TABLES, AND GRAPHS

	page
Figure 3.1: A Paradigm for the Study of Attitudes Toward Public Policy . . . . .	114
Table 4.1: Cohort Analysis Matrix: Five-Year Intervals . . . . .	128
Table 4.2: An Empirical Example of Cohort Analysis . . .	133
Table 4.3: Alternative Tests of the Aging-Republicanism Hypothesis . . . . .	135
Table 4.4: Cohort and Life-Stage Changes in Republicanism . . . . .	138
Figure 5.1: Foreign Policy Attitude Question-Sets . . . .	180
Figure 5.2: Allocation of Question-Sets to Paradigm . . .	187
Table 6.1: Example of Z-Score Derivation . . . . .	204
Table 7.1: Cohort Mean Z-Scores . . . . .	221
Graph 7.1: Cohort - Salience . . . . .	227
Graph 7.2: Cohort - Crisis Awareness . . . . .	229
Graph 7.3: Cohort - Expectation of Crisis Escalation . . . . .	231
Graph 7.4: Cohort - Expectation of War . . . . .	233
Graph 7.5: Cohort - Negative Economic Expectations . . .	234
Graph 7.6: Cohort - Expectation of War vs. Negative Economic Expectations . . . . .	236
Graph 7.7: Cohort - Expected Local Nuclear Danger . . . .	237
Graph 7.8: Cohort - Negative Image of the Soviet Union . . . . .	239

	page
10.4.2 Estimations and Projections . . . . .	368
10.4.3 Cohorts as Analytic "Individuals" . . . . .	373
10.4.4 Research on the Wording of Survey Questions . . . . .	376
APPENDIX A: TEXT OF ITEMS USED FOR EACH QUESTION-SET IN EACH SAMPLING POINT . . . . .	379
APPENDIX B: COMPLETE CONTROL GROUP COHORT ANALYSIS MEAN Z-SCORE DATA . . . . .	384
APPENDIX C: MEAN DEVIATION DATA FOR ALL CONTROL GROUPS . . . . .	395
APPENDIX D: DEMONSTRATION OF THE PUBLIC POLICY ATTITUDE PARADIGM: STUDIES OF FOREIGN POLICY ATTITUDES . . . . .	399
BIBLIOGRAPHY . . . . .	408

	page
Graph 7.9: Cohort - Perceived Soviet Superiority . . . . .	241
Graph 7.10: Cohort - Military Capability . . . . .	243
Graph 7.11: Cohort - Advocacy of War . . . . .	245
Graph 7.12: Cohort - Military Extension . . . . .	247
Graph 7.13: Cohort - Non-Military Extension . . . . .	248
Graph 7.14: Cohort - Crisis Awareness vs. Military Capability . . . . .	252
Graph 7.15: Cohort - Crisis Awareness vs. Negative Image of the Soviet Union . . . . .	254
Graph 7.16: Cohort - Military Extension vs. Non-Military Extension . . . . .	258
Table 7.2: Attribute-Space for Cohorts . . . . .	259
Table 8.1: Life-Stage Mean Z-Scores . . . . .	269
Graph 8.1: Life-Stage - Salience . . . . .	271
Graph 8.2: Life-Stage - Crisis Awareness . . . . .	273
Graph 8.3: Life-Stage - Expectation of Crisis Escalation . . . . .	275
Graph 8.4: Life-Stage - Expectation of War . . . . .	277
Graph 8.5: Life-Stage - Negative Economic Expectations . . . . .	279
Graph 8.6: Life-Stage - Expectation of War vs. Negative Economic Expectations . . . . .	281
Graph 8.7: Life-Stage - Expected Local Nuclear Danger . .	282
Graph 8.8: Life-Stage - Negative Image of the Soviet Union . . . . .	285
Graph 8.9: Life-Stage - Perceived Soviet Superiority . .	287
Graph 8.10: Life-Stage - Crisis Awareness vs. Perceived Soviet Superiority . . . . .	289
Graph 8.11: Life-Stage - Military Capability . . . . .	290

	page
Graph 8.12: Life-Stage - Advocacy of War . . . . .	293
Graph 8.13: Life-Stage - Military Extension . . . . .	296
Graph 8.14: Life-Stage - Non-Military Extension . . . . .	297
Graph 8.15: Life-Stage - Crisis Awareness vs. Expectation of War . . . . .	303
Graph 8.16: Life-Stage - Salience vs. Non-Military Extension . . . . .	305
Table 8.2: Attribute-Space for Life-Stages . . . . .	307
Table 9.1: Mean Deviation Analysis for Total Samples . .	322
Table 9.2: Variance Explained by Polynomial Regressions for All Groups . . . . .	325
Table 9.3: Variance in Total Samples Explained by Polynomial Regressions . . . . .	329
Table 9.4: Strength of Age Effects: Polynomial Variance Differences for Totals . . . . .	333
Table 9.5: Attribute-Space for Mean Deviation Analysis: All Groups . . . . .	337
Table 9.6: Average Variance in Five Control Groups Explained by Polynomial Regressions . . . . .	341
Table 9.7: Saturation of Age Effects: Average Variance Differences for Five Control Groups . . . . .	343
Figure 10.1: Allocation of Age Effects to Paradigm . . . . .	356
Table B-1: Grammar School Cohort Mean Z-Scores . . . . .	385
Table B-2: High School Cohort Mean Z-Scores . . . . .	386
Table B-3: College Cohort Mean Z-Scores . . . . .	387
Table B-4: Male Cohort Mean Z-Scores . . . . .	388
Table B-5: Female Cohort Mean Z-Scores . . . . .	389

	page
Table B-6: Grammar School Life-Stage Mean Z-Scores . . .	390
Table B-7: High School Life-Stage Mean Z-Scores . . . . .	391
Table B-8: College Life-Stage Mean Z-Scores . . . . .	392
Table B-9: Male Life-Stage Mean Z-Scores . . . . .	393
Table B-10: Female Life-Stage Mean Z-Scores . . . . .	394
Table C-1: Complete Mean Deviation Data for Totals and Five Control Groups . . . . .	 396
Figure D-1: Allocation of Foreign Policy Studies to Public Policy Attitude Paradigm . . . . .	 400



## CHAPTER ONE

### INTRODUCTION

This study investigates the meaning and relevance of age for the understanding of political behavior. In most societies certain patterns of behavior are associated with different ages. In contemporary American society, for example, there are specific styles and patterns of political behavior which are characteristically attributed to "youth" and which differ from the styles and patterns attributed to "old people." It is important to understand the meaning of age in a scientific sense, since we know, unequivocally, that any political system will have members of different ages. Age is an indicator of two phenomena, the aging process and the process of generational succession, which are fundamental facts of any social system; thus, the discovery of the political correlates of these processes can provide powerful insights concerning our scientific understanding of political life.

At any one point in time, a person's age indicates two separate characteristics. On the one hand, age indicates that the person has lived a given number of years, that he occupies certain roles in the society, and probably that he possesses some estimation of how long he has left to accomplish what he wants to accomplish. These manifestations of chronological age may be used to gain an understanding of patterns of political behavior. On the other hand, age also indicates a generational location within the flow of history. By knowing a person's age we know something of the environment in which he was born and raised. Each new generational group confronts a unique intersection of historical and contemporary forces;

thus we hypothesize that patterns of political behavior which are associated with age may be explained by generational factors as well as by chronological aging process factors.

Recognizing this ambiguity of interpretation surrounding the explanation of age-related behavior, the present study is an attempt to gauge empirically the strength of each mode of explanation. In so doing, this study has benefited from a number of insights developed not only by political scientists, but by the community of social scientists. First, in order to understand the implications of both the aging and generational processes, the relevant research within the literatures of sociology, psychology, and gerontology is reviewed. Second, for reasons described in subsequent chapters, a methodological approach developed by demographers, "cohort analysis," is applied to a body of political data, attitudes toward foreign policy. Third, in order to develop the empirical materials with which we may address the analysis of age, a newly emerging analytic research literature focusing upon the secondary analysis of existing survey data is exploited. Fourth, in order to establish procedures and decision rules for the successful analysis of archival survey data, a large amount of research on the subject of attitude measurement is reviewed.

One way to understand why these various components of social science research have been gathered is to describe the more general interests which have led to the present study. Although the position of this research project relative to other research will be made more explicit in the chapters which follow, a brief history of the evolution of the research design will provide an important background to our analyses. After

presenting this information, the remainder of the present chapter will focus upon a description of the structure of the study as a whole.

### 1.1 Background of the Study

The question of why people behave politically as they do is central to the study of politics. In recent years there has been a great deal of effort aimed at charting the structure of political behavior for individuals, groups, and political systems.<sup>1</sup> In particular, the study of political socialization focuses upon the variety of factors which influence the development of political and politically relevant attitudes and behaviors. In considering the various ways in which political beliefs become socialized, students of political behavior often focus their research upon "agencies" of political socialization, such as the family, the school, and the peer group. Such agencies are considered to be the basic transmitters of political orientations.<sup>2</sup>

One agency of political socialization which is seldom considered is history. While it may be true that parents, teachers, and friends have a significant impact upon the political outlooks and experiences which an individual develops, it is also true that the particular historical period in which one is socialized significantly affects political beliefs.

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<sup>1</sup>For reviews of these studies, see: Herbert H. Hyman, Political Socialization. Glencoe, The Free Press, 1959; Seymour M. Lipset, Political Man. New York, Anchor Books, 1960; Robert E. Lane, Political Life. New York, The Free Press, 1959; Lester W. Milbrath, Political Participation. Chicago, Rand McNally, 1965.

<sup>2</sup>See, for example: Neal E. Cutler, "Agencies of Political Socialization: A Quasi-Cohort Analysis," unpublished First Year Research Paper, Department of Political Science, Northwestern University, 1966.

The most obvious historical event which served as an agency of socialization for the American public, for example, was the Great Depression. This event interrupted career, education, and family plans, as well as precipitating a political coalition among voting groups which remains a potent force in contemporary politics. It may even be argued that under certain circumstances, history provides a more important agency of political socialization than does the family and the school. The existence of distinct generational groups often signifies the passing of significant historical events.

The study of political socialization, therefore, should include the analysis of generational trends. The fact that little knowledge concerning generational trends in American politics is available is due to two related factors. First, the observation of age differences in patterns of political behavior, as stated above, can logically imply not only generational effects but also aging process effects. Any single statement of the kind "the greater the age of the person the greater the probability of X behavior" may be explainable in either generational or aging process terms. Second, the location of empirical statements which do not suffer from this ambiguity of dual interpretation must be based upon longitudinal data. It must be possible, in other words, to observe individuals or groups of individuals over a number of years, so that measurements can be taken independently for generational effects and for aging process effects. The general paucity of this kind of data, especially within political science, is perhaps the major reason for the lack of information concerning the influence of historical events upon successive generational groups.

In order to ascertain the role of historical events as agencies of political socialization, a longitudinal data set must be constructed. One approach to this problem would be to establish a long-term study which would interview a sample of the population repeatedly over a number of years. In addition to the various logistical and methodological problems which this approach might produce, the interested scholar would have to wait for fifteen to twenty years before the study came to fruition. An alternative is the study of existing public opinion records. Although we know of no studies of political behavior which have repeatedly measured the same individuals over the past twenty years, archives of old survey data contain information concerning successive samples of the American population. By applying the demographic method of cohort analysis to these collections of survey data, it is possible to reconstruct samples of successive generational cohorts. Once this is done, the political content of these old surveys can be analyzed so as to map the structure of political behavior across a number of years.

The application of cohort analysis to political behavior has not, up to now, been used in political research. This is unfortunate because the need for the longitudinal study of political behavior, using survey research methods, has been recognized for at least a decade. In reviewing The American Voter in 1960, V. O. Key pointed out that while survey samples technically measure the political system in a static sense, "the great and really significant political actions--units of political behavior--take place over comparatively long periods of time."<sup>3</sup> Key then

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<sup>3</sup>V. O. Key, "The Politically Relevant in Surveys," Public Opinion Quarterly, 24 (1960), p. 56.

voices the hope that political researchers focus their efforts on the analysis of series of repeated samples. In the same year, Lipset observed that "unfortunately there has been no attempt to study systematically the effect of generation experiences with modern survey research techniques."<sup>4</sup>

The situation has not changed much in the past eight or nine years. In what is probably the most comprehensive recent review of the subject, McClosky spends eighty pages describing the many areas of concern to political scientists in which the techniques of survey research have been used.<sup>5</sup> Only two pages within this review are concerned with trend analysis. In McClosky's description of the future of survey research in the study of trends, no mention is made of the cohort approach, even though the initial article suggesting that cohort analysis could be applied to survey research was published in 1958.<sup>6</sup>

While McClosky's review article dwells upon the general uses of survey research methods in political analysis, a number of more focused "state of the art" papers, oriented toward the subject of the present study, may also be used to document the general absence of the kind of research presented here. In a review of the methodology and results of cohort analysis in general, Ryder observes that the technique has been used extensively in demography, and particularly in the study of fertility behavior. No examples of the cohort analysis of political behavior,

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<sup>4</sup>Lipset, op. cit., p. 281.

<sup>5</sup>Herbert McClosky, "Survey Research in Political Science," in Charles Y. Glock (ed.), Survey Research in the Social Sciences. New York, Russell Sage Foundation, 1967, pp. 63-143.

<sup>6</sup>William M. Evan, "Cohort Analysis of Survey Data: A Procedure for Studying Long-term Opinion Change," Public Opinion Quarterly, 23 (1959), pp. 63-72.

however, are mentioned.<sup>7</sup> In a review of the concept of "political generations," Rintala cites Evan's 1958 description of cohort analysis, while at the same time calling for future research in which such longitudinal methodologies are required. In Rintala's opinion, the significant empirical study of political generations is yet to be done.<sup>8</sup>

Since, in our opinion, the study of generational patterns is contributory to the understanding of political socialization, it is interesting to note the overwhelming neglect of the connection of these two fields of inquiry in the annals of political research. In his recently published review of the state of research in political socialization, Greenstein describes what he believes to be the major agencies of socialization: schools, parents, and the mass media. No mention is made of any research in which the notion of generational or cohort trends is employed to further understanding of either the process or content of political socialization.<sup>9</sup> Finally, in another recent review, Dennis surveys approximately three hundred published studies of political socialization. In describing the generational dimension of political socialization Dennis cites only two empirical studies, and observes that "this is one of the areas of political socialization research where least is known."<sup>10</sup>

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<sup>7</sup>Norman B. Ryder, "Cohort Analysis," in International Encyclopedia of the Social Sciences, Volume II. New York, The Free Press, 1968, pp. 546-550.

<sup>8</sup>Marvin Rintala, "Political Generations," in International Encyclopedia of the Social Sciences, Volume VI. New York, The Free Press, 1968, pp. 92-96.

<sup>9</sup>Fred I. Greenstein, "Political Socialization," in International Encyclopedia of the Social Sciences, Volume XIV. New York, The Free Press, 1968, pp. 551-555.

<sup>10</sup>Jack Dennis, A Survey and Bibliography of Contemporary Research on Political Learning and Socialization. Madison, Wisconsin, Center for Cognitive Learning, University of Wisconsin, Occasional Paper Number 8, 1967.

The present study is, thus, a product of the intersection of interests in political socialization and generational analysis on the one hand, and the systematic exploitation of existing empirical materials on the other. These two ingredients--interest in a substantive problem and knowledge of the methods required to create the research design--are not enough, however, to accomplish the research. The final ingredient, that of the data bank to be analyzed, was known to be available at the Oak Ridge National Laboratory. The survey data bank established by the Civil Defense Study Group at the Laboratory, under the direction of Dr. Davis B. Bobrow, was chartered with the task of studying trends in American public opinion toward matters of civil defense, within the broader context of attitudes toward defense and foreign policy.

As will be described in greater detail later, the Oak Ridge data bank contains over one hundred national sample surveys, spanning the years 1946-1966. From these data twelve longitudinal foreign policy attitudinal question-sets were constructed which could be measured across the twenty-year period. Using the method of cohort analysis, information concerning the generational trends within these attitudinal data was obtained. Because of the logic of the cohort approach, the potential influences of the aging process are controlled for in the observed generational trends. Similarly, the influences of generational factors are controlled for in the aging process trends. The cohort analysis of archival survey data thus allows for the determination of both generational and aging process effects within a common data set. By comparing the strength of these two interpretations of observed age patterns within the attitudinal data, we eliminate the ambiguity of explanation which is inherent in cross-sectional research designs.

As indicated by the above discussion, the primary focus of this study is the analysis of the independent variable, age, as an effort to compare the relative effects of the generational and aging processes. The particular dependent variable which has been chosen for the study is that of foreign policy attitudes. The specific reasons for selecting the foreign policy domain for analysis are discussed in later chapters; however, it should also be pointed out that a more general frame of reference is employed here in which the foreign policy domain plays an important role.

In this frame of reference, the social scientist has an obligation to contribute both directly and indirectly to the society which supports him. All "good" science, of course, does contribute at least indirectly as it generally contributes to the society's fund of knowledge. In our opinion, a scientist should, however, where possible, orient his research to more directly contributive goals. We are not referring here to the "basic" versus "applied" dichotomy in research and development, because even basic social scientific research can be classified as more or less directly contributive to the society's understanding of itself.

What does this frame of reference mean for the study of political behavior and attitudes? An answer to this question can be based upon the fact that regularized surveying of mass public opinion is an established component of the contemporary American political culture. As Newsweek editor Kenneth Auchincloss observed recently, "the polls have indisputably emerged from wobbly adolescence to dependable maturity--and have become the valued, indispensable handmaidens of the American political

process."<sup>11</sup> For better or for worse, publics and elites alike look to the polls for information concerning the prevailing opinion patterns. Yet most public opinion data are disseminated as journalism and not as scientific research. The more general meaning of the simple percentages which appear in the Sunday newspaper should be determined through scientifically designed research projects. How does a given national opinion profile on a particular issue compare with the trend in opinion on that issue? What kinds of opinion changes should be considered as significant? What does a particular opinion mean when considered in the context of other opinions?

An example of the kind of research described here is contained in the recent so-called Stanford Poll.<sup>12</sup> The question, "Do you approve of the president?" is regularly asked by the Gallup Poll. When significant proportions of the American public disapprove of the way the president is handling his job, what interpretation should be given to the data in terms of the important issues of the day? Verba and his colleagues embedded this public opinion barometer in a scientifically designed questionnaire which sought to measure the public's attitudes toward a variety of alternative solutions to the Vietnam War. In this way the correlates of disapproval of the president became known. Prior to the study it had been argued, for example, that most of the presidential disapprovers were more "hawkish" than the president, and that he would be more popular if

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<sup>11</sup>Kenneth Auchincloss, "The Polls and the Public," Newsweek, July 8, 1968, p. 23.

<sup>12</sup>Sidney Verba, Richard A. Brody, Edwin B. Parker, Norman H. Nie, Nelson W. Polsby, Paul Ekman, and Gordon S. Black, "Public Opinion and the War in Vietnam," American Political Science Review, 61 (1967), pp. 317-333.

the war were escalated. Certainly when the only data available indicate that sixty per cent of the public disapproves of the president, such an interpretation could be made purely upon ideological grounds. When the barometer item was correlated with a number of indicators of "hawk-dove" position, however, data became available which somewhat contradicted this interpretation.

What matters in this example is not the specific findings which the Stanford Poll produced, but the fact that a group of social scientists sought to directly contribute to the society's knowledge of itself by executing a research design closely connected with and substantially elaborating upon information publicly and regularly available. The decision to execute the present study within the domain of foreign policy attitudes is made in the context of this framework. Although it has become a cliché that "we live in a time of crisis," it is still important to determine the extent to which the division of American attitudes on the Vietnam War, specifically, and problems of foreign and defense policy, generally, are a continuation of trends which have been developing over the course of the Cold War. To what extent, it should be asked, are such opinions to be considered as unexpected? The kinds of generational and aging process analyses which are included in the present study will provide an empirical basis for ascertaining trends in attitudes toward foreign policy. We are not directly concerned, in this study, with public attitudes toward the Vietnam War; we are concerned, however, with the longitudinal nature of public attitudes toward the class of issues and problems of which the Vietnam War is a dramatic instance.<sup>13</sup> By

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<sup>13</sup>Demonstration of research upon foreign policy attitudes which does focus upon the Vietnam War may be found in: Neal E. Cutler, "Attitudes

providing empirical knowledge of these trends, it is hoped that the present study will contribute directly to the society which has supported it.

## 1.2 Structure of the Study

This study may be divided into three sections: the ideal, the possible, and the actual. In the first section, Chapters Two and Three, the problems are described which we would like ideally to be able to study, if there were no limitations of data and method. Chapter Two provides the theoretical foundations of our research, the concepts of generation and aging process. In discussing the concept of generational determinants of behavior, the arguments of Karl Mannheim, whose name is perhaps most closely associated with the concept, are reviewed. In the context of Mannheim's now-classic formulations, we describe the relationship between generational cohorts and contemporary research focusing upon political socialization. Following this, the empirical research relating generational influences to political behavior is reviewed.

Although there is not a great deal of research in the area of generational influences, the aging process interpretation of the age variable is represented by an immense research literature. Emanating from the disciplines of sociology, psychology, and gerontology, this literature contains much which is relevant to a study of political behavior. Three themes which are often used by researchers in this area are reviewed: (a) rigidity, dogmatism, and conservatism; (b) disengagement; and (c) time perspective.

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Toward the Korean and Vietnam Wars: Replication and Extension," unpublished paper, 1968.

The second theoretical chapter, Chapter Three, provides a conceptual basis for foreign policy attitudes, which comprise the dependent variable of this study. There are two bodies of reasoning, in addition to that given in Section 1.1, which brings us to the conclusion that this study of the age variable should be done within the domain of foreign policy attitudes. The "social reasons" focus upon the task of social forecasting; it is hoped that the empirical analysis produced in this study will provide a basis for the forecasting of future parameters of public attitudes toward matters of foreign policy. For a number of "scientific reasons," the domain of foreign policy attitudes provides a favorable environment for our initial investigation of the impact of age upon political behavior; this, in turn, is derived from theoretical notions concerning the psychology of unstructured behavioral situations.

The second task of Chapter Three concerns definitions of the concepts "attitude" and "foreign policy." While Chapter Two allowed us to review a great deal of research in the fields of psychology, sociology, and gerontology, the investigation of the dependent variable includes reviews of research in the areas of foreign policy and international relations, and attitude theory and measurement. The concept of "attitude," for example, has been used in social research for over two hundred years, and has been given very many definitions. Thus the task of fashioning a useful definition of the concept for the present study of political attitudes is a task which involves searching for a consensus among a number of contemporary students of attitude measurement.

The final section in Chapter Three presents a generalized paradigm for the study of attitudes toward public policy. Given the components of the attitude construct which were developed earlier in the chapter, and

the conceptualization of attitudinal objects originally developed in the context of foreign policy, the resulting paradigm has a general utility not only within the present study, but, hopefully, for a wide variety of policy attitude studies. The paradigm is useful for the description of a number of phases of any given research project. The particular kinds of attitudes analyzed within a given study can be allocated to the cells of the paradigm; in this way, the reader can see if the study contains information of interest to him. The major effects and conclusions discovered in the study can similarly be located within the paradigm; thus, the generality of the analytic conclusions can be suggested. Finally, an entire research literature may be portrayed in terms of the paradigm in an attempt to determine what kinds of attitudes have been studied and what kinds have not. All of these uses of our public policy attitude paradigm will be presented in this study.

Chapters Four and Five parallel the previous two chapters in that they describe what it is possible to measure in the spheres of age and foreign policy attitudes. These two chapters, in other words, provide the operational procedures by which the effects of the age variable can be measured, and by which sets of foreign policy attitudes can be located across the twenty-year period, 1946-1966. Chapter Four presents the logic and method of cohort analysis as applied to the secondary analysis of archival survey data. Cohort analysis is, in our view, superior to cross-sectional analysis for understanding the impact of age upon political behavior.

While the primary focus of this study is in fact upon the various manifestations of the age variable, we are equally concerned with a

demonstration of the cohort analysis method as a means to the empirical discovery of age trends. For this reason, Chapter Four not only discusses the place of cohort analysis within the general study of attitude trends, but also attempts to empirically demonstrate the gain in information which the technique yields, as compared to traditional cross-sectional methodologies. In this respect, Chapter Four is, in effect, a study within a study. A search of the research literature of political behavior yielded a single study which contained the kind of longitudinal data required by cohort analysis. Fortunately, this study includes all of the original data tables upon which the author based his conclusions concerning the relationship of the age variable to political party identification. Chapter Four provides a reanalysis of these data using the cohort technique; the reanalysis focuses upon the same hypothesis for which the data were originally collected. A test of this hypothesis with the original results as compared with the results of the reanalysis demonstrates the power of the cohort technique in discovering generational trends in political behavior.

Chapter Five provides the operational procedures by which the Oak Ridge survey data bank was interrogated so as to produce longitudinal foreign policy question-sets. Unfortunately, much of the attitude measurement literature which is available pertains to cross-sectional, single-sample research designs. The secondary analysis of old public opinion records is a newly developing thrust within the social sciences, and thus very few guidelines exist for the research contained in the present study. A number of problems were encountered in moving from the data bank to the particular data base of information which could be analyzed. Chapter Five, therefore, contains a description of the various solutions which were designed, as well

as the decisions which were made to implement these decisions. It is hoped that some of the procedures described in Chapter Five will be of use to other researchers who choose to employ the secondary analysis of survey data.

Once operational procedures were designed for the cohort analysis of foreign policy attitudes, the next question became that of the actual statistical procedures to be employed in describing the attitudinal data. This is the burden of Chapter Six. Again, since the secondary analysis of large-scale survey data banks is a relatively recent phenomenon, certain methodological problems accrue. Most of the standard statistical coefficients of correlation and association have been designed for single-sample studies; problems of measuring longitudinal attitude patterns in multiple-sample studies had to be faced in the present study with few guidelines from the literature. Chapter Six provides an operational discussion of the statistical transformations which were applied to the cohort data, as well as a description of the statistical deviation and polynomial regression procedures which were used to analyze the generational and aging process effects.

The next three chapters provide the results of these various conceptual, operational, and statistical decisions. Chapter Seven describes the response patterns of seven five-year generational cohort groups to the twelve foreign policy question-sets. The presentation of these data contains four elements: the numeric results of the cohort analyses, graphical representations of the longitudinal trends, specific hypotheses taken from the literature which bear upon the particular attitudes being analyzed, and an attribute-space analysis which focuses upon the dominant

attitudinal attributes which characterize the cohort groups. Chapter Eight, which provides the data for the eleven five-year life-stage groups, is identical in structure to Chapter Seven.

As will be described in detail in Chapter Four, the logic of cohort analysis provides for the isolation of both life-stage and generational trends within the same data set. It is possible, therefore, to directly compare the power of the aging process and the generational interpretations of the age variable. The task of Chapter Nine is to quantitatively provide a number of these comparisons. In so doing, we rely upon both the deviation analysis and the polynomial regression analysis described in Chapter Six. In Chapter Nine, however, we incorporate the results of separate cohort analyses of five control groups, stratified on the basis of the sex and education variables. By observing the power of the cohort and life-stage effects to explain variance in the attitudes of these intra-population strata, a further test of the comparative strength of the two interpretations of the age variable is obtained.

Finally, Chapter Ten describes the generality of (a) the age effects which were derived in the previous three chapters, as well as (b) the cohort approach to the secondary analysis of archival survey data. The allocation of the several cohort and life-stage effects to the cells of the public policy attitude paradigm should provide information not only about the trends in foreign policy attitudes over the past twenty years, but also about the cohort and life-stage structure of political attitudes in general. Since the paradigm represents a number of attitude types which may be found in a variety of political domains, the location of the age effects within the paradigm should provide valuable insights and hypotheses

to future researchers who may choose to investigate the age variable. To conclude the discussion of the generality of the age analysis approach to political behavior, the final section of Chapter Ten describes a series of potential applications of cohort analysis to a variety of research problems in the behavioral sciences. Thus, it is hoped that this study will not only be useful for its information content concerning foreign policy attitudes and for the evidence of the alternative manifestations of the age variable upon political behavior, but also for its demonstration of a widely applicable approach to the investigation and understanding of longitudinal social phenomena.

## CHAPTER TWO

### THE CONCEPT OF AGE: GENERATIONS AND THE AGING PROCESS

#### 2.1 Introduction: The Conflict of Explanations

The purpose of this chapter is to provide the theoretical background of the empirical investigation into the concept of age. The basic theoretical interest in this study is the concept of age, which is an important yet basically neglected variable in the study and explanation of political behavior. While the age variable is employed in studying only one aspect of political behavior, attitudes toward foreign policy, a more general analytic model may emerge by which many forms of political behavior can be studied. Of course, no single variable can "explain" behavior. Yet age has been neglected in theory to the extent that when multivariate theories of political behavior are constructed, the age component of theoretical explanation is ignored.

There are two basic aspects of a man's life which are implied by his age. On the one hand, age indicates his position in the life cycle, for example, youth versus the elderly; on the other hand, age indicates the historical generation to which one belongs. These two implications of age are often confused in the explanation of age differences in political behavior. The fact that present-day older people may, for example, be more Republican-oriented has been explained with the observation that as people get older they "naturally" become more conservative.<sup>1</sup> On the other hand,

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<sup>1</sup>John Crittenden, "The Relationship of Age to Political Party Identification," unpublished Ph.D. Dissertation, University of North Carolina, 1960, p. 154.

people who are today in the later stages of their own life cycle are also members of historically previous generations, generations which entered the political system at a time when the Republican party was in ascendancy. The well-documented durability of party identification over time might thus explain the Republican orientations of present-day old people. Similarly, as Lubell has observed, the Democratic tendencies of younger people may not be a function of youthful liberalism so much as it is a function of the fact that present-day younger people came of age, "arrived at the state of middle-class blessedness," at a time when big government and the Democratic party were legitimate and normative.<sup>2</sup>

Thus, the age variable has two main theoretical implications for the study and explanation of political behavior. In any given analysis the plausibility of both kinds of explanation should be investigated. Unfortunately, this is not usually done. While some analysts consider the alternatives, many either consider only one, or merely present "age differences" and consider no theoretical explanations of such observed differences. There are many examples of this latter set of studies, those which somewhat routinely "control for age," and leave the analysis for the reader to contemplate.<sup>3</sup> Such studies need not be thought inadequate or unscientific; that is, because the primary interest here is focused upon the meaning of age for patterns of political behavior, we do not

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<sup>2</sup>Samuel Lubell, The Future of American Politics, Second Edition. New York, Anchor Books, 1956, p. 63.

<sup>3</sup>Eugene J. Rosi, "Mass and Attentive Opinion on Nuclear Weapons Tests and Fallout, 1954-1963," Public Opinion Quarterly, 29 (1965), pp. 280-297; Yasumasa Kuroda, "Political Role Attributions and Dynamics in a Japanese Community," Public Opinion Quarterly, 29 (1965-1966), pp. 602-613; Bernard C. Cohen, "The Military Policy Public," Public Opinion Quarterly, 30 (1966), pp. 200-211.

expect others to devote an equal amount of effort to interpreting observed age differences. Unfortunately, however, some studies control for age rather automatically and terminate the analysis with the tabular presentation of age differences. Such studies might be more meaningful if the alternative explanations of age differences were at least considered. Of course, when no age differences are observed, the distinction between generational and aging process explanations are important from the standpoint of theoretical import.

The alternative interpretations of observed age differences imply two severely different models of social change. If one is interested in the forces which promote or hinder changes in a political system, then the profile of behavior patterns possessed by new groups of system members is a most important element for study.<sup>4</sup> The life-cycle interpretation of the age variable implies a static model of political system change. For example, if individuals change in a "characteristic" fashion from youthful radicalism to elderly conservatism, then this same pattern would be expected to iterate with each successive generation. As long as the leadership of the political system was drawn from a somewhat narrow interval within the life cycle, we would expect a characteristic kind of political ideology to emanate from the site of leadership. While the life-cycle interpretation of age-correlated behavior results in a cyclical pattern over time, it nonetheless implies a relatively static picture of the political system in that each iteration of the cycle develops in the same way as previous iterations.

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<sup>4</sup>David Easton and Robert D. Hess, "Youth and the Political System," in Seymour M. Lipset and Leo Lowenthal (eds.), Culture and Social Character. New York, The Free Press, 1961, pp. 229-246.

The generational interpretation of observed age differences in behavior provides a more dynamic model of political change. This generational model implies that the somewhat unique historical circumstances under which a generational group is born and is socialized will influence the political values and beliefs it holds to be important. More importantly, the generational model implies that those political postures which the generational group formulates early in its own life history will be carried forward into time as that generational group ages. Thus, as each generational group ages into that life-stage from which leaders are selected, it brings to leadership a set of political values which may be different from those of previous generations of leaders. To use an example previously cited, it is possible that youthful liberalism, as a generational phenomenon, will mature into elderly liberalism.

On a theoretical level, then, a model of political change based upon the life-cycle phenomenon implies an iterative, static model, while the generational interpretation implies a more dynamic model. Yet seldom will either interpretation of age differences account for all the observed variance, for both generational and life-cycle elements are usually at work in creating patterns of political behavior. The task of any study about the influence of age upon political behavior should be to unravel the effects of these two interpretations. A much larger task is to explore the influences of age in various domains of political behavior. The decision to design and execute the present study within the particular domain of attitudes toward foreign policy will be explored in the next chapter. The remaining sections of the present chapter will review the theoretical and empirical research which provides the basis of our expectation that behavior is in fact influenced by age-related phenomena.

## 2.2 Political Behavior as a Function of Generations

The man most closely associated with the generational explanation of behavior is Karl Mannheim.<sup>5</sup> In his "The Sociological Problem of Generations," Mannheim argues that an understanding of progress and change in society must include a knowledge of the historical forces which shaped any given generational group. Generations constitute an analytic entity not only because their members share a chronological coexistence, but also because they are subject to common intellectual, social, and political circumstances and influences.<sup>6</sup>

The problem of generations is important enough to merit serious consideration. It is one of the indispensable guides to an understanding of social and intellectual movements. Its practical importance becomes clear as soon as one tries to obtain a more exact understanding of the accelerated pace of social change characteristic of our time. It would be regrettable if extra-scientific methods were permanently to conceal elements of the problem capable of immediate investigation.<sup>7</sup>

In order to develop a framework for some of the research reviewed later in this chapter, as well as for our own research, it would be well to discuss the definition of generations and generational phenomena as presented by Mannheim. The sociological unity of any generational group is imposed by the similarity of location of a number of individuals within a sociological whole. "Individuals who belong to the same generation, who share the same year of birth, are endowed to that extent, with a

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<sup>5</sup>Karl Mannheim, "The Problem of Generations," in Paul K. Kecskemeti (ed.), Essays on the Sociology of Knowledge by Karl Mannheim. London, Routledge and Kegan Paul, 1952, pp. 276-322.

<sup>6</sup>Ibid., p. 282.

<sup>7</sup>Ibid., p. 287.

common location in the historical dimension of the social process."<sup>8</sup>  
 Although members of the same generation do in fact share this commonality of birth and historical experience, it is not to be implied that a generational group is a concrete group, as this latter term is sociologically constituted.

A generational group, unlike families, tribes, social clubs, and faculty meetings, does not necessarily have any self-identification as a finite social collectivity. Members of a generational group, for example, need not even be aware that they are members of such a group at all. In this respect, Mannheim compares generational groups to social classes.

Class position is an objective fact, whether the individual in question knows his class position or not, and whether he acknowledges it or not. Class-consciousness does not necessarily accompany a class position, although in certain social conditions the latter can give rise to the former. . . .

Thus a generational group, like social class and to some extent ethnic group, provides a commonality of experience which cannot be terminated by individual decision. As such, these social collectivities provide a means for the social location of individuals in time and space. This is not to say that in certain circumstances individuals cannot purposely or unknowingly deny or accentuate their various social locations. In some instances there is the possibility of objectively changing such characteristics, for example, through social mobility or ethnic group assimilation. This latter phenomenon, however, cannot take place with respect to generational location. The important point is that membership within a generational group is an objective and relatively permanent location;

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<sup>8</sup> Ibid., p. 290, emphasis added.

<sup>9</sup> Ibid., p. 289.

in turn, we may hypothesize that differential patterns of political behavior will be associated with differences in generational group membership.

What then are the implications of this "possession" of a common social-historical location by generational groups? According to Mannheim, such a location limits the individuals within the generational group to a specific range of potential experience, to a definable temporal interval within the expanse of history. While all members of a generational group may not perceive these experiences in the same way, Mannheim argues that the commonality of historical experience at least predisposes the members of a generational group to "a certain characteristic mode of thought and experience, and a characteristic type of historically relevant action."<sup>10</sup> Perhaps Mannheim was overstating his case by assuming that all members of a given generational group would react in a "characteristic" manner. It would be more accurate to say that a generational group, by experiencing the same limited span of history, would at least react to that common span of history. Thus, for example, conservative and liberal solutions would be applied to a common set of situations and problems.

The dynamic element of any model of social change based upon the idea of generations stems from the observation that each generational group is confronted with a commonality of historical experience. Mannheim asks his readers to consider a society deprived of the succession of generations, a society in which one generation lived forever with no new generations following. Contrast such a static society, Mannheim argues, with actual societies, and we find the following characteristics of generational

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<sup>10</sup> Ibid., p. 291.

succession: (a) new participants in the social system are always emerging while (b) former participants are disappearing; (c) each generation can participate only in its temporally limited circumstances, thus (d) culture must be transmitted to the next generation; and (e) such transmission is a continuous process.<sup>11</sup> Mannheim's extended discussion of these five "fundamental facts" of generations describes social systems characterized by change, by new ideas and solutions, and by stability. The continuous interaction between contiguous generations with somewhat overlapping exposure to historical experiences serves as a buffer to extended "generational conflict." Of course it is possible for successive generations to react to different events with relatively static and historically defined models. In terms of the present study, for example, it is possible for successive generational groups to react to international threats in the same manner. This, however, is a hypothesis to be tested.

### 2.2.1 Generations and Cohorts

Any study of the impact of generational differences upon patterns of political behavior must approach the question of the actual length of a generation. At what intervals within the historical process should we expect generational differences to be observed? The concept of generational cohort is offered in lieu of generation as an answer to this question. The purpose of this section is to discuss the theoretical connection between cohort and generation, and to indicate why the concept of cohort is used throughout the remainder of the study.

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<sup>11</sup>Ibid., pp. 292-293.

In assessing the duration of a generation, Mannheim found various estimates, ranging from fifteen to thirty years, with his own argument favoring the thirty-year interval.<sup>12</sup> Berger, asking "How Long is a Generation?", observed that the varying number of years attributed to "a generation" throughout written history, from Herodotus through Mannheim, made the term less than maximally useful for the purposes of empirical sociological analysis.<sup>13</sup> A generation was usually defined as "the average period from a male's birth until the birth of his first male child. Nowadays a generation so defined is much closer to twenty years in duration."<sup>14</sup> Thus, the term "generation" as defined in chronological or biological terms has been shortening. But in employing the theoretical notion of generation in the study of changes in the social and political systems, we must ask if in fact generations should be defined in biological terms. As Berger has observed, there has been an apparent tendency for the time period referred to by the term "generation" to shrink.<sup>15</sup> "The turning points between generations are more sociological than chronological, despite intriguing coincidences with historical intervals. What distinguishes one generation from another is not a sequence of small gradations but rather marked qualitative divergences. . . ."<sup>16</sup> The increased pace of technological change,

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<sup>12</sup>Ibid., p. 278.

<sup>13</sup>Bennett M. Berger, "How Long is a Generation?" British Journal of Sociology, 11 (1960), p. 10.

<sup>14</sup>Nelson Foote, "The Old Generation and the New," in Eli Ginzberg (ed.), The Nation's Children, Volume 3. New York, Columbia University Press, 1960, p. 6.

<sup>15</sup>Berger, op. cit., p. 11.

<sup>16</sup>Foote, op. cit., p. 7.

including of course the coming of the "Nuclear Era," suggests that we look for generational differences at intervals which are smaller than the traditional twenty- or thirty-year periods. It is for these reasons that we prefer the concept of "cohort" to that of "generation."

Emanating from the study of demography, "a cohort may be defined as the aggregate of individuals (within some population definition) who experienced the same event within the same time interval. In almost all cohort research to date the defining event has been birth."<sup>17</sup> Thus a cohort, like a generation, can be defined in terms of the commonality of time of birth. Unlike the term "generation," however, a cohort is not of necessity twenty or thirty years in duration, but can be defined in terms of the research interests of the analyst. While the interval which is used to define a cohort can thus be arbitrarily or theoretically determined, the cohort still maintains the temporal characteristics inherent in the concept of generations. "The cohort record is not merely a summation of a set of individual histories. Each cohort has a distinctive composition and character reflecting the circumstances of its unique origination and history."<sup>18</sup>

While any given cohort retains those historical characteristics as outlined by Mannheim, those who prefer cohort to generation argue that the former concept directs the scholar's attention to the possibility of defining a cohort by events other than birth. "The proposed orientation to temporal differentiation of cohorts emphasizes the context prevailing

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<sup>17</sup>Norman Ryder, "The Cohort as a Concept in the Study of Social Change," American Sociological Review, 30 (1965), p. 845.

<sup>18</sup>Ibid.

at the time members of the cohort experience critical transitions.<sup>19</sup> Thus a cohort may be defined as all those members of the political system who were married in a given year, who were drafted into the army in a given year, who obtained their college degrees, etc. These kinds of considerations are particularly significant for the present study as we attempt to determine the impact of the "Nuclear Era" upon the American political system. While we may easily "define" a cohort in terms of when it was born, e.g., "the 1918 cohort," it may be more desirable to define cohorts in terms of major world events, e.g., the "World War I cohort."

### 2.2.2 Cohorts and Political Socialization

The naming of any particular birth cohort presupposes some knowledge of those times within the life process of the cohort which should be considered, in Ryder's words, times of "critical transitions." Should the entity labeled "World War I cohort," for example, be the cohort born during the War, the cohort of persons about ten years old during the War or those about twenty-one years old during the War? In other words, for which age cohort did the War provide the most significant effect upon attitudes, for which cohort was the War a predominant agency of political socialization? There has been a recent resurgence of interest among political scientists in the study of political socialization, the study of how members of a political system come to develop and hold various politically relevant beliefs, orientations, values, and attitudes. Earlier research concerning this process, as comprehensively summarized by Hyman, focused upon high

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<sup>19</sup>Ibid., p. 847, emphasis added.

school and college students.<sup>20</sup> It was believed by many analysts that this stage in the life cycle was the approximate stage at which most significant political postures were formulated.

Most of the more recent research upon the processes of political socialization has tended to focus upon life-stages earlier than high school. The work of Easton and his associates<sup>21</sup> and Greenstein<sup>22</sup> is based upon elementary school children. Even at these young ages, the scholars found that many significant politically relevant beliefs were already formed. "Every piece of evidence indicates that the child's political world begins to take shape well before he even enters elementary school and that it undergoes the most rapid change during these years."<sup>23</sup>

In studying political socialization in Burma, however, Pye concluded that political socialization does indeed occur after general socialization, when the individual is formally accepted into the political system as an adult.<sup>24</sup> Focusing at an even older life-stage, Almond and Verba concluded

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<sup>20</sup> Herbert Hyman, Political Socialization. Glencoe, The Free Press, 1959.

<sup>21</sup> David Easton and Robert D. Hess, "The Child's Political World," Midwest Journal of Political Science, 6 (1962), pp. 229-246; Robert D. Hess and David Easton, "The Child's Changing Image of the President," Public Opinion Quarterly, 24 (1960), pp. 632-644; David Easton and Jack Dennis, "The Child's Image of Government," in Roberta Sigel (ed.), "Political Socialization: Its Role in the Political Process," The Annals, 361 (September, 1965), pp. 40-70. See also note 4 above.

<sup>22</sup> Fred I. Greenstein, Children and Politics. New Haven, Yale University Press, 1965.

<sup>23</sup> Easton and Hess, "The Child's Political World," op. cit., p. 235.

<sup>24</sup> Lucian W. Pye, Politics, Personality and Nation Building. New Haven, Yale University Press, 1962, pp. 44-45. Pye's point is a good one if we distinguish between manifestly political socialization

that, although youthful experiences of the family and the school were important, certain adult experiences were even more significant for political outlooks.<sup>25</sup> If one were to summarize very briefly the major thrust of the findings in recent political socialization research, it would be said that although socialization is an ongoing life process, many (if not most) basic political orientations are learned during the early stages of life. More specific political orientations, such as party identification, have also been found to be influenced at early ages, and are seen to be relatively durable over time.<sup>26</sup>

It is still an open question, however, when we turn to the study of attitudes toward foreign affairs. At what life-stage, for example, did the event of World War I have its greatest lasting impact? On ten-year-olds whose fathers were off to war? On the fathers and the adult families

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and general learning and socialization experiences which are politically relevant. Most of the studies of political socialization by Easton and Greenstein, for example, study the socialization of authority figures and symbols, as contrasted with experiences and events which influence more manifestly political attitudes. In considering "the half-life of an event" in its influence on attitudes, it is important to investigate different age groups to see at what age the half-life effect is greatest. In the present study it is assumed that the experiences and events which may imprint a definable generation have taken place by the age of twenty-one, that is, the study of adults between the ages of twenty-one and seventy will reveal generational differences. Future research may determine if a generation is formed in later age groups as well.

<sup>25</sup> Gabriel Almond and Sidney Verba, "Political Socialization and Civic Competence," Chapter 12 in their The Civic Culture. Princeton, Princeton University Press, 1963. For an empirical critique of Almond and Verba's findings in this context, based upon a reanalysis of their own data, see: Neal E. Cutler, "Agencies of Political Socialization: A Quasi-Cohort Analysis," unpublished First Year Research Paper, Northwestern University, Department of Political Science, 1966.

<sup>26</sup> Angus Campbell, Philip E. Converse, Warren E. Miller, and Donald E. Stokes, The American Voter. New York, Wiley, 1960. See: Chapter 6, "The Impact of Party Identification," pp. 120-145.

themselves? An analysis of successive birth cohorts may allow us to answer this kind of question. If the impact of the event on attitudes was differential, an assumption which may well be disverified, we may be able to locate those sets of attitudes among the various cohorts which indicate the greatest impact of the event.

Our study of age cohorts is also a study of political socialization. We will attempt to answer questions which are basic to studies in this area: Are major world events significant agencies of political socialization? At what stages within the life process do events appear to have their most significant impact? To what extent do these socialization experiences have carry-over effects into later life-stages? In attempting to locate answers to these questions, we will turn to an analysis of successive birth cohorts, for "the cohort record" as Ryder has pointed out, "is the aggregate analogue of the individual life history."<sup>27</sup>

### 2.2.3 Research on the Impact of Generations on Political Behavior

In the attempt to locate the impact of generational effects upon patterns of political behavior, we acknowledge that this study is not the first to recognize the potential fruitfulness of Mannheim's suggestions. It is true, as was pointed out earlier, that many analysts ignore the problem of interpreting observed age differences. As Ryder similarly concluded, "age is customarily used in statistical analyses merely in the [aging-process] role, if not as a cross-sectional nuisance to be controlled. . . ."<sup>28</sup> On the other hand, several studies may be cited which do

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<sup>27</sup>Ryder, op. cit., p. 859.

<sup>28</sup>Ibid., p. 847.

grapple with this duality of explanations: aging process and generational succession. At least two studies acknowledged the indeterminacy involved in interpreting age trends. Working with attitudes toward a number of political and personal objects, Hinshaw pointed out that significant differences between old and young respondents could not be clearly attributed to either the generational or life cycle explanations.<sup>29</sup> Working as he did in the early years of public opinion polling, he concluded that only future studies based on larger accumulations of trend data could answer the question. Similarly, Stouffer, in his study of tolerance and prejudice, stated that he could not conclude whether younger people were just more tolerant than older people, or the newer generation was more tolerant than historically prior generations.<sup>30</sup>

In a more recent study Neugarten et al. lamented that little systematic attention has been given to the study of age groups and the interpretation of age-related behavior patterns since the early essays by Mannheim and his contemporaries.<sup>31</sup> While this is basically true, there have been some studies in the research literature of political science and political sociology which have at least attempted to approach the problem. However, there are at least three students of political behavior who consider and then specifically reject such interpretations.

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<sup>29</sup>Robert Hinshaw, "The Relationship of Attitudes and Opinion to Age," unpublished Ph.D. Dissertation, Princeton University, 1944.

<sup>30</sup>Samuel Stouffer, Communism, Conformity, and Civil Liberties. New York, Doubleday, 1955, p. 89.

<sup>31</sup>Bernice L. Neugarten, Joan W. Moore, and John C. Lowe, "Age Norms, Age Constraints, and Adult Socialization," American Journal of Sociology, 70 (1965), p. 710.

After constructing a fairly exhaustive review of the existing literature concerning political socialization, Hyman considers the "doctrine of generations" as a factor in changing patterns of political behavior. He states that "the doctrine must be regarded in a modest light. The overwhelming resemblance between most parents and most children demonstrated in a variety of studies, despite the obvious fact that the world is ever-changing, patently argues against the general significance of the [generations] doctrine."<sup>32</sup> Based on a reading of the Hinshaw study cited above, Toch attempted to expand that study by adding some 1953 poll data to Hinshaw's pre-1944 data. In a brief research note Toch compared the two sets of data for six separate personal and public issues and concluded that his data argued against any generational interpretation.<sup>33</sup>

The single most comprehensive empirical challenge to the generational notion is a study by Crittenden.<sup>34</sup> Crittenden attempted to demonstrate that the aging process brought about a transition to conservative political orientations, and hence identification with the Republican party. "The purpose of this paper is to demonstrate that the aging process has an impact on party affiliation that is independent of any such generational factors,"<sup>35</sup> Crittenden stratifies four national samples by age,

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<sup>32</sup>Hyman, op. cit., p. 124.

<sup>33</sup>Hans Toch, "Attitudes of the 'Fifty Plus' Age Group: Preliminary Considerations Toward a Longitudinal Survey," Public Opinion Quarterly, 17 (1953), p. 393.

<sup>34</sup>John Crittenden, "Aging and Party Affiliation," Public Opinion Quarterly, 26 (1962), pp. 648-657; and "Aging and Political Participation," Western Political Quarterly, 16 (1963), pp. 323-331. See also the study cited in note 1 above.

<sup>35</sup>Crittenden, "Aging and Party Affiliation," op. cit., p. 548.

and then presents the percentage of Republican identifiers at each age level, for each of the four years 1946, 1950, 1954, and 1958. At each point in time, Crittenden observes, there are more Republicans at the older end of the age continuum than at the younger end. Since this holds true for each of the four time-cuts presented, he concludes that it is the aging process which promotes a conversion to Republicanism.

On the face of it Crittenden's argument is convincing. However, certain logical criticisms can be made about the structure of his comparisons. As already pointed out, any cross-sectional study produces the ambiguity of two logical, plausible, and possible interpretations of age differences. Crittenden's work merely presents four such cross-sectional comparisons; the multiplication of ambiguity does not necessarily produce clarity. Similarly, people who occupied the group aged 60-70 years old in Crittenden's 1946-1958 period entered the political system (that is, were approximately twenty years old) in the period around 1890-1910. Thus it is certainly plausible to explain the Republicanism of these older people in generational terms even though the structure of Crittenden's comparisons favor an aging interpretation. Finally, we can apply a more rigorous empirical test of Crittenden's conclusions. Fortunately he presents his data in a way which can be reanalyzed according to the technique called cohort analysis. This technique will be fully described in Chapter Four and it will be the approach employed for the analyses of the present study. An application of cohort analysis to Crittenden's published data tables will show that in fact the aging hypothesis should be rejected. For a majority of the age cohorts presented, the percentage of

Republicans actually declines as the cohort is traced from 1946 through 1958.<sup>36</sup>

Although the examples are relatively few, some students of political behavior have applied generational interpretations to their conclusions. Most of the examples, however, as the studies already cited, are based upon cross-sectional designs and are thus ambiguous in their interpretations. While the authors may or may not acknowledge such ambiguity, the studies are presented here as examples of the recognition of the potential utility of the generational hypothesis to explain political behavior.

We first turn to the area of party identification to contrast Crittenden's findings with those of the University of Michigan Survey Research Center. In analyzing their data the authors of the now classic The American Voter attempted to ascertain the impact of generational phenomena at least so far as the Great Depression is concerned.<sup>37</sup> Looking at the percentage of Democratic party identifiers in 1956 (the "current" electorate for this study) according to age it was seen that those who "came of age during the 1920's have a lower proportion of Democratic identifiers than any of the groups that entered the electorate in later years."<sup>38</sup>

The Michigan analysts point to a number of factors which should serve to actually decrease the impact of generational phenomena upon

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<sup>36</sup> Ibid., p. 651, Table 2. See Chapter Four, Table 4.2 for the application of cohort analysis to Crittenden's data.

<sup>37</sup> Campbell, et al., op. cit., pp. 154-155.

<sup>38</sup> Ibid.

their data. Since the party identification of 1956 was cross-tabulated with time of entrance into the electorate, any pro-Democratic orientations developed during the Depression would have had a number of years to be attenuated. For example, many members of the Depression's Democratic first-time voters came from Republican-oriented backgrounds. Thus, over a period of years there would be an expected return to the Republican party for some of these persons. Further, if it is at all true that old-age processes favor the Republican party, then some of those who were Democratic youths during the Depression should have become, at the time of the Michigan interviews in 1956, Republican identifiers. Given these pro-Republican forces, the Michigan data strongly demonstrate the generational impact of the Depression experience:

Despite all these considerations the evidence seems to justify our conclusion that the Great Depression swung a heavy proportion of the young electors toward the Democratic party and gave that party a hold on that generation which it has never fully relinquished.<sup>39</sup>

Using somewhat more animated language, Lubell also explained party identification phenomena in these terms:

The essential difference between the Republican-rooted middle class and the newer Democratically-inclined middle class . . . is the factor of timing--of when each arrived at the state of middle-class blessedness. The newer middle class, having achieved their gains in a period of expanding governmental activity, are not hostile to "big government" as are the older middle class elements.<sup>40</sup>

In his comprehensive review of political behavior research, Lipset cites a number of cross-sectional studies that yield age differences which could be interpreted in generational terms. For example, a 1944

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<sup>39</sup> Ibid.

<sup>40</sup> Lubell, loc. cit.

study showed that among Negroes in Harlem, the younger were significantly more likely to vote for Roosevelt than the older. "Many of the older Negroes may have been still responding to an image of the Republican party as the party of Lincoln."<sup>41</sup> Further examples are given by the Columbia panel studies in which religion correlated more strongly with voting preference for the older voters than for the younger voters. Lipset's interpretation pointed out that the older voters formed their political allegiances in the pre-Depression years when religious differences were more salient than class differences. "The younger voters, however, formed their political beliefs in the thirties and forties, when class became more important."<sup>42</sup>

In his review of the political socialization research, Hyman describes what is perhaps the only long-range panel study of political attitudes.<sup>43</sup> Nelson polled 4000 college students in 1936, and then he polled a subsample of this panel again in 1950.<sup>44</sup> A number of statistical tests reported by Nelson indicated that the 1950 subsample was an unbiased representation of the original sample of 4000. The retest showed that despite the fourteen years of the aging process that had intervened, the observable shift was a slight shift toward greater liberalism. Nelson then polled a new sample of college students in 1950 for purposes of comparison with the 1936 college sample: the newer generation of college students

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<sup>41</sup>Seymour M. Lipset, Political Man. New York, Doubleday, 1960, p. 281.

<sup>42</sup>Ibid.

<sup>43</sup>Hyman, op. cit., p. 140.

<sup>44</sup>Erland N. P. Nelson, "Persistence of Attitudes of College Students Fourteen Years Later," Psychological Monographs, 68 (1954), pp. 1-13.

was also more liberal than the 1936 sample. Hyman concludes, therefore, that the Nelson study supports a "modified generational theory, namely, that the experience of social change, subsequent to the formative years, is operative . . . . Subgroups from the different colleges and individuals show a remarkable tendency to maintain their relative position of liberalism or conservatism despite their aging by fourteen years and their exposure to the variety of intervening experiences."<sup>45</sup>

To conclude this set of examples indicating the generational impact of the Depression upon American political behavior, we can point to Centers' study of high school students born in approximately 1930.<sup>46</sup> Centers found that even among the children of the upper income groups there was substantial support for a "collectivist" orientation. His descriptive comments apply not only to his findings but to these other examples as well:

These are children of the New Deal. Born in depression, reared in unemployment and insecurity, constantly exposed to the ideology of three Roosevelt administrations, witnessing the dramatic victories of welfare legislation, T.V.A., etc., and probably in numerous instances personally and tangibly and perceptively benefiting from welfare measures, could one expect a result other than just what we have in these youth?<sup>47</sup>

While the great majority of empirical examples of the influence of generational factors upon American political behavior stems from research upon domestic political attitudes, there are at least two studies which focus on attitudes concerning foreign policy and international relations. In analyzing his 1955 sample of adults, Farris acknowledged the ambiguity

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<sup>45</sup>Hyman, op. cit., p. 140.

<sup>46</sup>Richard Centers, "Children of the New Deal: Social Stratification and Adolescent Attitudes," International Journal of Opinion and Attitude Research, 4 (1950), pp. 315-335.

<sup>47</sup>Ibid., p. 325, italics in original.

in the observed age differences. Unlike others who specifically faced this problem, Farris decided that in a cross-sectional study, a "period" or generational interpretation is less suspect than a developmental or aging process interpretation.<sup>48</sup> The latter, he observed, demanded a longitudinal study.

In reviewing his data, Farris found that the scores on his "jingoism" scale increased with age. Not satisfied with this observation Farris devised an ingenious method of statistical comparison based upon his age-stratified sample. He compared each ten-year age group with every other age group and found that although the jingoism scores were linearly related to age, the most significant difference divided those over fifty years old from those 21-49 years old. "What this finding most obviously suggests is that some factor connected with World War I is related to increases in high jingoism." Controls for education, although diminishing the size of the relationship within the high education group, did not eliminate the basic age-jingoism relationship.<sup>49</sup>

In reviewing the small number of attitude surveys available between 1946 and 1949, Almond cited certain generational factors as responsible for the attitude differences he observed.<sup>50</sup> Those age differences which exist for foreign policy attitudes, Almond observes, are probably due to the special experience of the younger age groups whose most vivid political

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<sup>48</sup> Charles D. Farris, "Selected Attitudes on Foreign Affairs as Correlates of Authoritarianism and Political Anomie," Journal of Politics, 22 (1960), p. 59.

<sup>49</sup> Ibid., p. 61.

<sup>50</sup> Gabriel Almond, The American People and Foreign Policy, Second Edition. New York, Praeger, 1960, pp. 117-120.

recollections have to do with the international crisis of the 1930's, the outbreak and experience of war, and the problems of the postwar years. While these might be somewhat bleak experiences, Almond observes that the younger age groups might not be as skeptical as the older age groups who witnessed the failure of the League of Nations. Finally, Almond points out that the younger age groups are still close in time to their exposure to international relations via the classroom, in which structural elements of international cooperation and organization are often emphasized. Thus the international images of the younger age groups are constructed more in terms of the possibilities for peace than the potentially negative images of "power politics."

On the basis of these observations, Almond suggests three hypotheses concerning generations and attitudes toward international relations:

- (1) the younger groups are likely to set a greater priority on international affairs than on domestic;
- (2) they are more likely to be informed on the organizational aspects of international relations;
- (3) they are more likely to be optimistic about the prospects of international organization and less likely to favor unilateral security actions.

The available data on the attitudes of younger people toward foreign policy problems suggest the validity of these three hypotheses.<sup>51</sup>

Again, the reader is reminded that the data to which Almond refers are cross-sectional in nature. Almond's hypotheses will be subjected to a more rigorous longitudinal test in Chapter Seven.

While all of the above examples detail the influence of generational phenomena upon patterns of American political behavior, there are instances of research focusing upon other political systems in which generational explanations have been favored. As illustrated in the beginning of this

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<sup>51</sup>Ibid., p. 118.

chapter, the notion of generational influences upon modern politics was developed in Germany in response to the apparent generational conflict which, in the view of some pre-Hitler German sociologists, aided the rise of Nazism. Among those whose writings have been translated into English the names of Mannheim, Neumann, and Heberle are prominent in the development of a "theory" of generations-in-politics.<sup>52</sup> In German society of that time, more than we would expect to find in the Depression-shaped society of the United States, a dramatic disjunction developed between the traditionalistic, ascriptive adult society and the youth who due to rapid industrialization were occupationally upwardly mobile. In the family and school systems, as well as in politics, bureaucratic and authoritarian structures reinforced the older ascriptive status mechanisms, denying youth political power as well as status. There arose a conscious identification of "youth," of a difference in generations, which was manifest in an articulated conflict between age groups within the population. Such conflict gave rise to a "continuous stream of unresolved tensions and unsuccessful rebellions which constituted part of the background for the rise of the Nazi movement. . . ." <sup>53</sup>

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<sup>52</sup>Mannheim, op. cit.; Sigmund Neumann, "The Conflict of Generations in Germany," in his Permanent Revolution. New York, Harper, 1942, pp. 236-244; Sigmund Neumann, "The Conflict of Generations in Contemporary Europe," Vital Speeches, 5 (1939), pp. 623-638; and Rudolf Heberle, Social Movements: An Introduction to Political Sociology. New York, Appleton-Century-Crofts, 1951, Chapter 6.

<sup>53</sup>S. N. Eisenstadt, From Generation to Generation. New York, Free Press, 1956, Chapter 1. It should be pointed out that Eisenstadt's now-classic study, while appearing from its title to be quite germane to the present study, is not germane. Eisenstadt uses the term "generation" to indicate older and younger age groups which must coexist within a society at any given time. His study concerns status and role in various primitive and modern societies, and the position of age-related statuses in the allocation of social roles and rewards. Thus, when Eisenstadt

More recent research upon political attitudes in Western Europe has also employed the notion of generations to explain observed age differences. In a study of mass attitudes toward European integration, Inglehart combined a secondary analysis of adult interviews with his own polling of student respondents in France, West Germany, Britain, and the Netherlands. By stratifying the adult polls by age, and then by adding his student data (which are based on items identical to the adult questionnaires), Inglehart was able to observe the cross-sectional age trends across a number of items designed to test various aspects of attitudinal support for European integration: "The data indicate that a gap does exist between adults and youth in relative degrees of 'Europeanness.'"<sup>54</sup> Inglehart found that two discontinuities were present in the age trends: between the youth and the youngest adults, and between the mass of adults and those aged fifty-five and over. The student respondents, especially in the German and French samples, were born in 1945 or later; they have gained their first political perceptions in a world where European organization seems natural and right, and nationalism seems archaic and dangerous."<sup>55</sup> On the other hand, the oldest adult group was significantly less in favor of integration than the adjacent younger adult group, reflecting, perhaps, "a powerful dose of the influences of World War I."<sup>56</sup> It is interesting to note

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refers to "generational conflict" or the generational succession of authority, status, etc., he is referring to what in the present study we are calling differences in life-stages, i.e., differences associated with the aging process, and not differences in generational phenomena as "generation" is used by Mannheim, Neumann, and Herberle.

<sup>54</sup>Ronald Inglehart, "An End to European Integration?" American Political Science Review, 61 (1967), p. 92.

<sup>55</sup>Ibid., p. 94.

<sup>56</sup>Ibid., p. 93.

that these generational explanations offered by Inglehart in the interpretation of his European data are remarkably similar to the hypotheses offered by Almond after reviewing the patterns of attitudes toward foreign policy among American samples.

An additional example of the influence of generational phenomena upon European political behavior is the German and French elite interview data collected by Deutsch.<sup>57</sup> Like Inglehart, Deutsch's research concentrated on matters of European integration and the Atlantic alliance, as well as upon various specific proposals for disarmament and arms control. Deutsch reports that across all his various attitude measures factors of nationality explained more variation than factors of age.<sup>58</sup> However, where significant age differences were found, they were between the oldest and youngest elites as contrasted with the middle elites. This "Mid-Elite" is composed of those born between 1904 and 1914, those about twenty years old in 1939, "and who thus were in all likelihood most profoundly formed in their outlook by the experiences of the 1930's and the Second World War. . . ."<sup>59</sup> While a complete listing of the age differences to be found in Deutsch's data can be found in his published works, we can mention a few examples here. The French Mid-Elites are most nationalistic, that is, believe in a "French Manifest Destiny"; they are the most supportive of

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<sup>57</sup>Karl W. Deutsch, Arms Control and the Atlantic Alliance. New York, Wiley, 1967.

<sup>58</sup>Ibid., p. 68.

<sup>59</sup>Ibid.

President De Gaulle and most favorable toward an independent French foreign policy; and, the Mid-Elites are most fearful of a Communist military threat.<sup>60</sup>

Moving eastward from these studies of Western Europe, we find at least two instances of research focusing upon the Russian Revolution and related events as the determinant of political generations. In a historical study of politics in Finland, aptly titled Three Generations: The Extreme Right Wing in Finnish Politics, Rintala observes that "the concept of generation has remained for students of politics largely untouched. This is remarkable, for historians and novelists have used it with considerable success."<sup>61</sup> The Finnish Civil War of 1918 between the Reds and the Whites began as Finland declared her independence from Russia while the latter was engaged in its own civil war. Rintala, as a political historian, demonstrates that this civil war demarcated a definable political generation, with observable differences in the politics of the pre-war generation, the civil-war generation, as well as the post-war generation. Indeed, as Rintala remarks, one cannot understand contemporary Finnish politics without a knowledge of the generation-forming influences of the Finnish civil war period.<sup>62</sup>

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<sup>60</sup> Ibid., pp. 69-71. For further analysis of these data, see: Karl Deutsch, Lewis J. Edinger, Roy C. Macridis, and Richard L. Merritt, France, Germany and the Western Alliance. New York, Scribner's, 1967.

<sup>61</sup> Marvin Rintala, Three Generations: The Extreme Right Wing in Finnish Politics. Bloomington, Indiana University Press, 1962.

<sup>62</sup> Marvin Rintala, Review of: John H. Hodgson, Communism in Finland. Princeton, Princeton University Press, 1967, American Political Science Review, 61 (1967), pp. 819-820. See also: Hodgson, op. cit.; and Marvin Rintala, "The Problem of Generations in Finnish Communism," American Slavic and East European Review, 17 (1958), pp. 190-202.

As would be expected, the Russian Revolution has been found to serve as a generation-defining event for the analysis of the politically-relevant attitudes of Soviet citizens. Based upon data gathered by Rossi,<sup>63</sup> Bauer studied the attitudes of Soviet refugees.<sup>64</sup> While it is not pretended that refugees offer a representative sample of Soviet citizenry, Bauer nonetheless found significant age differences in attitudes within his sample. In determining the respondents' reasons for turning against the Soviet system or for having always been opposed to the Soviet regime, Bauer found that significant variation in response patterns was associated with the age of the respondent at the time of the revolution. The younger respondents, those who entered the political system (approximately at the age of twenty) after the revolution, claim to have been always opposed to the regime, while those who were already adults at the time of the revolution were more prone to state that they became opposed to the Soviet regime because of ideological considerations.<sup>65</sup> By comparing those who arrived at the age of twenty before the revolution with those who became twenty years old after the revolution, Bauer observes, "we are clearly dealing with the impact of historical events rather than life-cycle differences."<sup>66</sup>

In considering these various examples of research which have either ignored, rejected, or supported generational interpretations, it must be

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<sup>63</sup>Alice Rossi, "Generational Differences in the Soviet Union," unpublished Ph.D. Dissertation, Columbia University, 1955.

<sup>64</sup>Raymond A. Bauer, "Some Trends in Sources of Alienation from the Soviet Union," Public Opinion Quarterly, 19 (1955), pp. 279-291.

<sup>65</sup>Ibid., pp. 287-288.

<sup>66</sup>Ibid.

clearly remembered that with two exceptions (Crittenden and Nelson) all these studies are cross-sectional in design. That is, these studies were based on data collected at a single point in time and then stratified by age. Any observed age differences were interpreted in a way which seemed both historically and theoretically logical, and consistent with other data and findings. As Lipset has observed, "unfortunately there has been no attempt to study systematically the effect of generation experiences with modern survey research techniques."<sup>67</sup> Yet if the insights and hypotheses forwarded by Centers, Lubell, Nelson, and the Survey Research Center in the domain of American domestic political attitudes or those by Almond, Farris, Inglehart, and Deutsch in the area of comparative analysis of attitudes toward foreign policy are to be utilized to their fullest, then we must construct comparisons using longitudinal data. While the studies presented here indicate that there is something to be said for Mannheim's theoretical analysis of the generational determinants of social and political behavior, there is also a good deal of research evidence which indeed indicates that the aging process also affects the attitudes of men. The remaining sections of this chapter will explore some of this research. In Chapter Four, consequently, a set of techniques will be developed by which the generational and life-cycle interpretations offered by various analysts can be confronted one against the other, in the context of longitudinal data sets.

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<sup>67</sup>Lipset, op. cit., p. 280.

### 2.3 Behavior as a Function of the Aging Process

Unlike the literature surrounding the generational explanation of human behavior, there is no dearth of research on the aging process. The search for an explanation of why man ages and dies is perhaps as old as man himself. Research was focused on the biological and medical aspects of cellular and organic deterioration before social and psychological aspects of aging were concentrated upon. Since the literature in this area is quite expansive, our discussion of the impact of the aging process upon patterns of political behavior must of necessity be somewhat selective.

Most of the studies which have focused upon the impact of the aging process upon individual behavior have emanated from the various subfields of psychology. Researchers have investigated rates of learning, psychomotor skills, adaptation and reaction to induced laboratory conditions, as well as differential response to various attitudinal measures. Indicative of the growth of both interest and research in the study of aging is the fact that twice in the past six years the editors of the Annual Review of Psychology have seen fit to commission omnibus review articles on the psychology of aging.<sup>68</sup> Additional indicators of the increasing research interest in this subject among behavioral scientists are the large research reviews of Breen, Williams, Riegel, Kuhlen, and Cain.<sup>69</sup>

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<sup>68</sup> James E. Birren, "Psychological Aspects of Aging," Annual Review of Psychology, 13 (1962), pp. 161-198; Shiela M. Chown and Alastair Heron, "Psychological Aspects of Ageing [sic] in Man," Annual Review of Psychology, 17 (1965), pp. 417-450.

<sup>69</sup> In addition to the comprehensive reviews in the previous note, see: Leonard Z. Breen, "The Aging Individual," in Clark Tibbitts (ed.), Handbook of Social Gerontology. Chicago, University of Chicago Press, 1960, pp. 145-162; Leonard D. Cain, "Life Course and Social Structure," in Robert E. L. Faris (ed.), Handbook of Modern Sociology. Chicago,

As a final evidence of the expanding research literature on aging, we can point to the appearance of specialized academic journals focusing upon the study of the aging process, with special emphasis upon middle-aged and elderly persons. Just as interest in the younger end of the age continuum has recently captured the interests of many political scientists, so has an interest in the older end of the age continuum developed among psychologists. For some psychologists, as well as sociologists, interest in older people stems from a therapeutic or social-work kind of orientation. There is, according to some scientists, "successful and unsuccessful" aging, good and poor adjustment to aging. There are debates among the various researchers in the field as to whether or not research should attempt to specify the components of "successful aging."<sup>70</sup> Other scientists have developed a research interest in the "problems" of old age solely from a scientific interest in the subject; for these scientists, the social work or applied science foci are somewhat premature. Although the debate goes on, a great amount of necessary descriptive work continues to be generated. Much of it is reported in some of the standard psychology journals dealing with personality, development, etc.;

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Rand McNally, 1964, pp. 272-309; Raymond G. Kuhlen, "Changing Personal Adjustment During Adult Years," in John Anderson (ed.), Psychological Aspects of Aging. New York, American Psychological Association, 1956, pp. 21-35; Raymond G. Kuhlen, "Aging and Life Adjustment," in James E. Birren (ed.), Handbook of Aging and the Individual. Chicago, University of Chicago Press, 1951, pp. 852-897; Klaus F. Riegel, "Personality Theory and Aging," in Birren (ed.), op. cit., pp. 797-851; and Richard H. Williams, "Changing Status, Roles, and Relationships," in Tibbitts (ed.), op. cit., pp. 261-297.

<sup>70</sup>The work of Kuhlen cited above is an example of the adjustment orientation. For a lengthy argument against the general utility of such research, see the work by Cumming and Henry, and their associates, which is discussed in Subsection 2.3.2, on disengagement.

however, a great deal of the research may be found in the Journal of Gerontology, Geriatrics, and The Gerontologist.

This vast research literature indicates two basic things: (1) there is a sound basis for our expecting behavioral differences to correlate with the aging process, and (2) we must be fairly selective in reviewing that research which promises to provide insights into patterns of political behavior. There is, of course, some research literature within political science which addresses the question of age. As has been pointed out in the previous sections of this chapter, however, most of these political studies merely locate age-related differences in political behavior, outside of the context of any theory of aging. The task here, therefore, is to examine certain bodies of theory as these have been developed by students of the aging process. We shall examine three such theoretical areas: (1) rigidity, dogmatism, and conservatism, (2) disengagement, and (3) time perspectives.

### 2.3.1 Rigidity, Dogmatism, and Conservatism

The aging hypothesis which has been most popular in the literatures of political lore and political science is that the aging process is a process of conversion to conservatism.<sup>71</sup> Our contention in the previous section was that the political conservatism found among older people in recent studies might be explained by generational rather than life-cycle factors. Nevertheless, there has been some work on the part of the social

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<sup>71</sup>For an early study of the relationship between aging and conservatism, using survey data as its basis, see: Otto Pollak, "Conservatism in Later Maturity and Old Age," American Sociological Review, 8 (1943), pp. 175-179.

gerontologists which points to a general conservatism that has been observed as coming with old age.<sup>72</sup>

Breen reports that although the image of the older person as rigid and conservative came from earlier impressionistic studies, more recent survey and experimental work has to some extent verified this image.<sup>73</sup> Heglin, for example, attempted to experimentally induce attitude change in a laboratory problem-solving situation. He found that older subjects were more "set in their problem-solving ways" than either middle-aged or younger subjects.<sup>74</sup> In a pair of studies, Lorge attempted to verify this same kind of finding using both cross-sectional and longitudinal methods applied to the same respondents. In the first study Lorge contrasted a younger sample and an older matched sample and found that the older group was "more stable" in its various habits, ideas, and social attitudes. Three years later, retesting of these respondents showed that the older group was still more stable in its attitudes than the younger group.<sup>75</sup>

Kuhlen has also reviewed a number of studies which indicate that older persons tend to be conservative in morals, politics, and general living. They tend to be more "old fashioned" than modern or liberal,

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<sup>72</sup>Sidney L. Pressey and Raymond G. Kuhlen, "Moral, Sociopolitical, and Religious Values and Behavior," in their Psychological Development Through the Life Span. New York, Harper, 1957, pp. 436-505.

<sup>73</sup>Breen, op. cit., p. 153.

<sup>74</sup>H. J. Heglin, "Problem Solving Set in Different Age Groups," Journal of Gerontology, 11 (1956), pp. 310-316. An earlier experimental study is reported in C. H. Marple, "The Comparative Susceptibility of Three Age Levels to the Suggestion of Group versus Expert Opinion," Journal of Social Psychology, 4 (1933), pp. 176-186.

<sup>75</sup>Irving Lorge, "Attitude Stability in Older Adults," Psychological Bulletin, 33 (1936), p. 759, and "The Thurstone Attitude Scales," Journal of Social Psychology, 19 (1939), pp. 199-208.

and, in fact, possess images of themselves as conservative.<sup>76</sup> Despite this evidence of old-age conservatism, Kuhlen points to a number of factors which would caution against the making of political predictions on the basis of such evidence: (a) the studies employ varying methods and foci in measuring conservatism, (b) the trends observed are not sharp-- "seldom is the trend strong enough to put the majority of the young on one side of an issue and the majority of the old on the other side," and (c) while older respondents believe that they are conservative, they often feel that in fact they are more liberal than when they were young.<sup>77</sup>

There are a number of studies which have demonstrated that older persons tend to hold more extreme, emphatic, and intense positions. These traits have been called, by different psychologists, both dogmatism and rigidity. Cantril, Taylor, and Gergen and Back have all found that older respondents show greater intensity in the agreement or disagreement with survey items; the work of Gergen and Back is specifically oriented toward international actors (nations and individuals).<sup>78</sup> Similar evidence has been presented by Stouffer, who found that older persons were more intolerant of minority groups than were younger respondents.<sup>79</sup> Agger and his associates found that aging and political cynicism were positively

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<sup>76</sup>Kuhlen, "Aging and Life Adjustment," op. cit., p. 882.

<sup>77</sup>Ibid.

<sup>78</sup>Hadley Cantril, "The Intensity of an Attitude," Journal of Abnormal and Social Psychology, 41 (1946), pp. 129-135; C. Taylor, "Age Differences in Rigidity as Revealed in Attitude Scale Responses," unpublished Ph.D. Dissertation, Syracuse University, 1955. Both these studies are cited by Pressey and Kuhlen, op. cit., p. 495. The studies by Back and Gergen are given in notes 96 and 104.

<sup>79</sup>Stouffer, loc. cit.

related.<sup>80</sup> In addition to these studies of political or ideological rigidity, psychologists have tested older persons for a general decline in their abilities to behave in a flexible manner. In a study of general personality rigidity, Schaie found that significant levels of rigidity were found to begin at the age of 41-45; levels of personality rigidity continued to rise through age seventy.<sup>81</sup>

While these studies indicate that old-age conservatism, dogmatism, and rigidity do in fact exist, there is certainly room for argument concerning the interpretation and generalization of the findings. In the first place, as Kuhlen recognizes, most of the studies done in this area are cross-sectional in nature.<sup>82</sup> Those few longitudinal studies which have been reported support the conservative and rigid image of the older person; yet more large-scale longitudinal work needs to be designed.

In another discussion Kuhlen argues that these characteristics of the aging process should not be considered as independent variables, that is, attributes which are inherent in old age.<sup>83</sup> The onset of old age provides at least three sources of frustrations and threat to the individual, which in turn are probable causes of the conservative and rigid behavior patterns observed in other research. First, age brings significant losses in personal status. While new status may be obtained,

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<sup>80</sup> Robert E. Agger, Marshall N. Goldstein, and Stanley A. Pearl, "Political Cynicism: Measurement and Meaning," Journal of Politics, 23 (1961), pp. 477-506.

<sup>81</sup> K. W. Schaie, "Rigidity-flexibility and Intelligence: A Cross-sectional Study of the Adult Life Span from 20 to 70 Years," Psychological Monographs, 72 (1958), Number 9.

<sup>82</sup> Kuhlen, "Aging and Life Adjustment," op. cit., p. 882.

<sup>83</sup> Kuhlen, "Changing Personal Adjustment . . . ," op. cit.

the new status cannot really replace those which had been the basis of a lifetime's social gratification. Second, although biological losses come with age, research has demonstrated that the actual biological losses are not so important as are the individual's perceptions of such losses.<sup>84</sup> Finally, with old age comes the stability of life style, a stability of occupation, career, and residential location. The aging individual may feel a constriction of mobility, a loss of personal freedom.

Kuhlen argues that these three social and psychological manifestations of old age create a situation in which the aging person is quite susceptible to real and imagined threats. Since the individual has been faced with losses in status, perceived biological disabilities, and personal freedom, any new situation may become a threatening situation. Under these conditions, it is no wonder that the older person relies on proven personality and behavior patterns. Thus the behavior patterns of old age may be merely an extension of a behavior trait observed in almost all individuals, the application of validated stereotypes to new, and perhaps threatening, situations.<sup>85</sup> It is in this sense that Kuhlen argues that conservatism and rigidity be considered as dependent variables. To the degree that the perception of losses and threats can be eliminated, that is, "happier" patterns of old-age adjustment can be obtained, then to such a degree this characteristic conservatism and rigidity might be eliminated.

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<sup>84</sup>Ibid., p. 24.

<sup>85</sup>Breen, op. cit., p. 154.

### 2.3.2 Disengagement

The theory of "disengagement" has been one attempt to cope with the various ways in which the process of aging affects social behavior. Under its director William Henry, the Kansas City Study of Adult Life was designed as a panel study of older persons. As the pattern of behavior and attitudes continued to be revealed, the investigators sought to develop a theory which would accommodate the observational data, but be free from any value judgments concerning "good or poor adjustment" to old age. According to Henry and his associates, the theory of disengagement was developed inductively as the study progressed, with many suggestions emanating from common sense.<sup>86</sup>

Starting from the common-sense observation that the old person is less involved in the life around him than he was when he was younger, we can describe the process by which he becomes so, and we can do this without making any assumptions about its desirability. In our theory, aging is an inevitable mutual withdrawal between the aging person and others in the social systems he belongs to.<sup>87</sup>

The disengagement theorists see a major distinction between themselves and many of the adjustment-oriented social gerontologists. Many of these students of adjustment, Cumming and Henry observe, believe that during old age the individual must strive to expand and stay active as was done during the younger years.<sup>88</sup> The belief is that for every lost social role, e.g., the loss of the role of breadwinner through retirement, a new role should be sought. Although Cumming and Henry acknowledge that

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<sup>86</sup> Elaine Cumming and William Henry, Growing Old. New York, Basic Books, 1961, p. 10.

<sup>87</sup> Ibid., p. 14.

<sup>88</sup> Ibid., p. 16ff.

this orientation has been responsible for a good deal of descriptive information concerning the social processes of old age, they doubt if there is any useful theory which is contained in such problem-oriented research. It is conceivable that a "well-adjusted" person is one who feels like disengaging from his social world, and does not desire to become an active oldster. There may be a number of variables which could predict the total pattern of the aging process for different individuals. "Our theory is social-psychological, and it is offered as a bridge between personality theory on the one hand and social theory on the other."<sup>89</sup> Thus, the disengagement theorists are beginning to map the important elements of the aged person's image of self and his social world in an attempt to explain why some persons may disengage while others do not.

There have been a number of projects emanating from the Kansas City Study that attempt to verify various aspects of disengagement theory. Dean, for example, found that expressed attitudinal rejection of the aging process declined as the age of the respondent increased, and, similarly, denial of the respondent's age by him decreased with age. Dean concluded that such findings support the theory of disengagement as being the major dimension along which the behavior of the aged changes.<sup>90</sup> Wapner and his colleagues, analyzing responses to questions based upon the respondents' viewing of optical illusions, found that the older respondents had more difficulty in specifying the part-whole relationships which the illusion experiments were testing. Relating these findings with previous

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<sup>89</sup> Ibid., p. 10.

<sup>90</sup> Lois R. Dean, "Aging and the Decline of Instrumentality," Journal of Gerontology, 15 (1960), p. 407.

similar research, the analysts concluded that in old age there is greater egocentricity, as seen by a decreased differentiation between the self and the world.<sup>91</sup> As a final example, Rosen and Neugarten using Thematic Apperception Tests found that older people as compared with younger people are less able to perceive and deal with complex, affect-laden situations, and are less able to integrate wide ranges of stimuli. "The implication is that the older person tends to respond to inner rather than outer stimuli, to withdraw emotional investments, to give up self-assertiveness, and to avoid rather than embrace challenge."<sup>92</sup>

Although the theory of disengagement promises to provide interesting insights into the mechanisms of the behavior patterns associated with the aging process, the above research serves only to translate observed behavioral characteristics into the language of a particular theory. In none of these research reports emanating from Henry's Kansas City Study is there a comparison of the disengaged with the "non-disengaged" or engaged. Another criticism we might make of this kind of research is that none of it in fact predicts a disengagement from behavior. The various psychological tests employed in the research described above pointed to behavioral characteristics which theoretically should lead to disengagement in terms of a specific kind of behavior. Behavioral indicators of disengagement, however, were never demonstrated.

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<sup>91</sup>S. Wapner, H. Werner, and P. Comalli, "Perception of Part-Whole Relationships in Middle and Old Age," Journal of Gerontology, 15 (1960), p. 415.

<sup>92</sup>Jacqueline L. Rosen and Bernice L. Neugarten, "Ego Functions in the Middle and Later Years: A Thematic Apperception Study of Normal Adults," Journal of Gerontology, 15 (1960), pp. 65-66.

In light of the above comment, it is interesting to note that behavioral evidence of a disengagement phenomenon may be found in the literature of political behavior research. Tingsten, for example, collected voting data from several European countries which substantially demonstrated that the rate at which people vote tends to decline during the period of old age.<sup>93</sup> A number of studies have demonstrated that "engagement" within the community leads to increasing levels of political participation. To the extent that migrants who are new to a community are, like old people, on the fringes of "engagement," the theory of disengagement receives behavioral support.<sup>94</sup> Milbrath's propositional inventory of political behavior research provides more general evidence of this withdrawal or disengagement phenomenon. "Participation rises gradually with age, reaches its peak and levels off in the forties and fifties, and gradually declines above sixty."<sup>95</sup>

Milbrath located eight studies which supported this age curve in political participation. In his explanation of these participation data, Milbrath also provides a version of disengagement theory, although he does not call it such: participation is related to three intervening

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<sup>93</sup>Herbert Tingsten, "Age Groups in Politics," in his Political Behaviour. London, P. S. King and Son, 1937, pp. 79-119.

<sup>94</sup>Harry Sharp, "Migration and Voting Behavior in a Metropolitan Community," Public Opinion Quarterly, 19 (1955), pp. 206-209; Basil Zimmer, "Participation of Migrants in Urban Structures," American Sociological Review, 20 (1955), pp. 218-224; Neal E. Cutler, "Ecological Dimensions of Migrant Voting Behavior in the Los Angeles Standard Metropolitan Statistical Area," Population Research Laboratory, University of Southern California, 1965.

<sup>95</sup>Lester W. Milbrath, Political Participation. Chicago, Rand McNally, 1965, p. 134.

variables, which in turn are related to age: (1) integration with the community, (2) the availability of blocks of free time, and (3) good health. As individuals get older, however, Milbrath's explanation would predict greater participation and not withdrawal. Older people are usually more integrated into their communities, and have large blocks of free time since their children have grown up, and retirement has replaced regular working hours. Only the physical disability component of Milbrath's explanation would predict disengagement. It is at this point that the social-psychological theory of disengagement may become useful, since it is expected that physical disability alone is not the sole cause of disengagement.

In a more recent study, Gergen and Back analyzed responses to a number of interview questions in terms of disengagement theory. Since disengagement implies freedom from various social norms, these analysts tested two hypotheses. First, it was hypothesized that older respondents would tend to have greater frequencies of "don't know" or "refused to answer" responses. Second, freed from the social norm of moderation, older respondents would tend to take the extreme choice of a multiple choice survey item. Both these hypotheses, the analysts report, were supported by a data set which included twenty-five per cent political questions.<sup>96</sup> While this study demonstrated actual behavioral disengagement, as did the studies of political participation described by Milbrath, there is still a need to arrive at a measure of disengagement which is independent of age. If disengagement is a social-psychological phenomenon,

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<sup>96</sup>Kenneth J. Gergen and Kurt W. Back, "Communication in the Interview and the Disengaged Respondent," Public Opinion Quarterly, 30 (1966), pp. 385-398.

and not just a biological-chronological one, then individuals could be classified as more or less disengaged. While we would expect old age and high disengagement to be positively correlated, the relationship between disengagement per se and political behavior should be more clearly specified. There may be identifiable mechanisms which connect old age to disengagement, mechanisms which may be more or less operative depending upon a number of other variables, e.g., education or life satisfaction.

### 2.3.3 Time Perspectives

Although the concept of time perspectives, and its relationship to social behavior, has been part of the social science literature for almost thirty years,<sup>97</sup> it is only in recent research that the concept has been applied to politically relevant attitudes. The notion that a person's perception of the meaning and availability of time has become particularly important among students of aging. Certainly it is natural to hypothesize that older people have a time perspective that differs from that of younger people. There is, of course, an inextricable relationship between time and aging.

In time our bodies deteriorate, our minds become less alert, and the satisfaction of our basic physical needs is less easily achieved because of illness. Our health is often a function of age. "Aging" is obviously a term pertaining to time. The experience of aging contributes to our awareness of time. We "age" as soon as we are born. . . . No one is exempt from this process; the experience of time by human beings is universal.<sup>98</sup>

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<sup>97</sup>L. K. Frank, "Time Perspectives," Journal of Social Philosophy, 4 (1939), pp. 292-312; Kurt Lewin, "Time Perspective and Morale," in Goodwin Watson (ed.), Civilian Morale. New York, Society for the Psychological Study of Social Issues, 1942, pp. 48-70.

<sup>98</sup>Maria Reichenbach and Ruth A. Mathers, "The Place of Time and Aging in the Natural Sciences and Scientific Philosophy," in Birren (ed.), op. cit., pp. 43-44.

Although we may expect changes in time perspectives to be generated by the problems usually associated with growing older, we are all aware of the tendency for time perspectives to become changed or distorted under various circumstances. When we are bored, perhaps trapped in a very dull committee meeting or listening to a colleague's uninspired research ideas,<sup>99</sup> time seems to pass very, very slowly. When we are happily enjoying the company of a long-lost friend who has come into town for only a day, time "speeds up." Such distortions of the "time metric" are commonplace occurrences, and are often of short duration. The onset of old age, however, may precipitate more durable alterations in time perspectives, an occurrence which may then shape many other attitudes and behaviors.

Kuhlen has described the evolution of time perspectives as being concomitant with the life-span itself. In childhood, time has no structure, while in adolescence time becomes structured but is perceived to be limitless. It is at about age thirty when the individual recognizes that time is finite, and that the future should be planned according to the laws of the allocation of scarce resources. Middle age brings the awareness that time is not only finite, but is now becoming seriously limited. It is at this point, Kuhlen argues, that a "psychology of old age" becomes a meaningful entity.<sup>100</sup> "The total psychological impact of serious losses in, for example, health, economic status, or social relations may be much less significant in early adulthood or middle age as

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<sup>99</sup>For an enjoyably written account of this social-psychological phenomenon, see: Geraldine R. Mintz, "Some Observations on the Function of Women Sociologists at Sociology Conventions," The American Sociologist, 2 (1967), pp. 158-159.

<sup>100</sup>Kuhlen, "Changing Personal Adjustment . . . ," op. cit., p. 25.

compared with old age simply because of the greater opportunity for repair offered by time yet ahead."<sup>101</sup> If time perspectives are an important aspect of the individual's total cognitive structure, then perhaps it may be used to efficiently explain any observed patterns of political behavior which have been associated with age. For this reason, we should devote more effort to understanding the nature and correlates of time perspectives.

Kastenbaum has stated that "in general, time perspective refers to one's orientation beyond the present moment. It is considered to involve cognitive and motivational factors and to constitute one of the basic psychosocial links between the individual and his society."<sup>102</sup> In understanding the structure of time perspectives, four main component variables appear to be operative: (1) extension-- how far ahead does the individual extend his thoughts about the future; (2) density-- how densely populated with future events do his thoughts appear to be; (3) coherence-- how coherent does the scheme of future events appear; and (4) directionality-- to what extent does the individual see himself as moving from the present moment toward future events.<sup>103</sup> Given these components, then, time perspectives have been postulated as one of the basic psychosocial links between an individual's present-time situation and his perception of a

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<sup>101</sup> Ibid.

<sup>102</sup> Robert Kastenbaum, "The Structure and Function of Time Perspective," Journal of Psychological Research, 8 (1964), p. 97. See also: Robert Kastenbaum, "Cognitive and Personal Futurity in Later Life," Journal of Individual Psychology, 19 (1963), pp. 216-222.

<sup>103</sup> M. Wallace, "Future Time Perspectives in Schizophrenia," Journal of Abnormal and Social Psychology, 52 (1956), p. 240; Robert Kastenbaum, "The Dimensions of Future Time Perspective: an Experimental Analysis," Journal of General Psychology, 65 (1961), p. 206.

social as well as a personal future. As one would surmise, changes in time perspectives correlate with age; and as the above discussion illustrates, we would expect age in this case to have a life-stage meaning as contrasted with a generational meaning.

Although the concept of time perspectives promises to be an important one in understanding changes in political behavior, there has been little political research in which the concept has been used. In fact, most of the work which has been done on the area of political behavior is a series of three articles published by a sociologist and a social psychologist.<sup>104</sup> In these studies, Gergen and Back hypothesize that those persons with truncated time perspectives will favor extremist, simple, and/or immediate solutions to complex international problems. In part, these hypotheses contradict the expectations yielded by disengagement theory, that is, for the older person, problems of international affairs will not be very salient. On the other hand, both disengagement and time perspectives predict extreme responses to survey questions. The disengaged person will offer extreme responses because he is freed from the social norms of moderation, and the person with a truncated future time perspective will favor extreme solutions because he feels that there is little time left for more moderate solutions to work. Further, the rigidity and conservatism associated with old age might predict extreme responses. If Kuhlen is correct in that the older

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<sup>104</sup>Kurt W. Back and Kenneth Gergen, "Individual Orientations, Public Opinion and the Study of International Relations," Social Problems, 11 (1963), pp. 77-87; Kurt W. Back and Kenneth Gergen, "Apocalyptic and Serial Time Orientations and the Structure of Opinions," Public Opinion Quarterly, 27 (1963), pp. 427-442; and Kenneth Gergen and Kurt W. Back, "Aging, Time Perspective, and Preferred Solutions to International Conflicts," Journal of Conflict Resolution, 9 (1965), pp. 177-186.

person is threatened by a loss of social statuses as well as the loss of the biological abilities required to regain them, then such a threatened person might project his fears to the arena of international affairs. Since all three of these characteristics of the aging process provide similar predictions, the correlation between age per se and patterns of political behavior is left unexplained. Age, therefore, should not be used as the operational indicator of disengagement or of time perspective; rather, independent measures of these concepts are needed.

There have been some attempts to develop independent measures of some of these concepts, each of which has been seen to correlate with age. Back and Gergen, basing their study on a secondary analysis of old public opinion surveys, were able to locate a small number of Gallup and Roper surveys containing questions which appeared to measure time perspectives. In the course of their three studies which have been noted above, Back and Gergen found, as hypothesized, that their measures correlated both with age and with the endorsement of extreme and immediate solutions to international problems.

In a recent study by Zurcher and his colleagues an attempt was made to develop a unidimensional "future time orientation" scale.<sup>105</sup> This scale was then included in a study along with a dogmatism scale. The authors hypothesized that dogmatism and a future-oriented time perspective would correlate positively. Although the correlation resulting from this study was low (0.39), it was both statistically significant and in the predicted direction. This would be somewhat unexpected on the basis of the previous

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<sup>105</sup>Louis A. Zurcher, J. E. Willis, F. F. Ikard, and J. E. Dohme, "Dogmatism, Future Time Orientation, and Perception of Time," Journal of Social Psychology, 73 (1967), pp. 205-209.

discussion concerning the relationship between aging and each of these two concepts. The evidence indicated that age was positively related to dogmatism, but negatively related to future time perspective. In order to solve this apparent dilemma we may turn to the work of the scholar whose name is perhaps most identified with the study of dogmatism, Milton Rokeach.

In describing the various dimensions which comprise the dogmatism syndrome, Rokeach includes the concept of time perspectives. "A narrow time perspective is one in which the person overemphasizes or fixates on the past, the present, or the future without appreciating the continuity and the connections that exist among them."<sup>106</sup> Rokeach hypothesizes that the dogmatic personality will be characterized by a narrow time perspective, regardless of whether such a perspective is one which fixates on the past, the present, or the future. Therefore, our apparent dilemma is no dilemma at all. Older persons who have truncated future time perspectives may be expected to be dogmatic, and young ideologues who concentrate only upon the distant future will also be expected to be dogmatic. The causal interrelationships among these variables remain to be investigated. However, in another study Rokeach hypothesizes that "closed belief systems [i.e., dogmatism], future-oriented time perspectives, and the relation between the two can perhaps be best understood as defenses against anxiety."<sup>107</sup> Such a hypothesis receives support from the previous discussion of the aging process, in which anxiety is produced as the aging individual is faced with more and more status and biological losses.

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<sup>106</sup> Milton Rokeach, The Open and Closed Mind. New York, Basic Books, 1960, p. 51.

<sup>107</sup> Milton Rokeach and Richard Bonier, "Time Perspective, Dogmatism, and Anxiety," in Rokeach, op. cit., p. 375.

## 2.4 Summary

Studies of the consequences of age differences for patterns of social behavior can become confused due to the two major alternative interpretations of observed age differences. The purpose of this chapter has been to delineate these two alternatives both conceptually and in terms of their respective research literatures. The study of "age differences" per se is not underdeveloped within the social sciences. Anthropologists study patterns of status and authority in terms of age differences. Psychologists study learning and maturation processes in children and in the elderly. Political scientists have noted a variety of age distinctions in patterns of political participation. Much less frequent in the study of age differences, however, has been the investigation of the source and meaning of the differences: are they functions of the biological-chronological processes of maturation or are they functions of generational-historical differences?

Certain patterns of behavior, of course, are not ambiguous in terms of which of the alternative age interpretations is operative. For example, that the frequency of daily exercise activity declines with age is, it is most probably valid to say, an aging process phenomenon rather than a generational one. It is not so clear, however, if such gerontological factors are the cause of a decline in voting behavior among older age groups. Going a step further, the possibility that a generational interpretation is valid increases when certain attitudinal differences between age groups are considered. Perhaps the ambiguity of age differences is greater for political scientists than for psychologists and anthropologists; that is,

there is less behavior which is "obviously" caused by the aging process of concern to students of political behavior.

In studying generations and the aging process, we have described a number of concepts which will be used in our empirical investigations. A "cohort," it has been noted, is the operational equivalent to a generation. While the latter term has been used with a good deal of ambiguity, the former can more easily be given distinct meanings, meanings defined in terms of the investigator's research project. Coming from the study of demography, a cohort is an analytic group of persons which shares a common time of birth or other significant event within the life cycle. Thus the members of a given cohort all share a common temporal location which, we may hypothesize, influences their attitudes. It will be recalled that Mannheim distinguished "generational location" from "generational unit." The latter term describes individuals who not only share a common generational location, but who are also conscious of such commonality and are influenced by it. In the present study only generational location is considered as we have no measures of the degree to which individuals recognize their membership in different generations. As Rossi observed in her study of generational differences among Soviet emigres, we may be tempted to infer the existence of generational units from observed regularities associated with generational location.<sup>108</sup> Such inferences, however, would obtain no substance from our analyses; future research in this area is needed to determine if Americans in fact see themselves as members of distinct generations, and if so, what behavioral differences are influenced by such a phenomenon.

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<sup>108</sup>Rossi, op. cit., p. 7.

A cohort, therefore, allows the investigator to be arbitrary in his definition of the various generational groups. This arbitrariness, of course, should be based upon theoretical and empirical considerations, as our discussion in Chapter Four will demonstrate. In addition, the investigation of the behavior of cohorts must not lose sight of the potential contamination of the results by the other alternative age explanation, that of the aging process. It is for this reason that we have included a conceptual investigation of the aging process.

In investigating the potential effects of the aging process upon political behavior, we make an assumption similar to that as in the study of generational differences. Just as age serves as an indicator of generation (and therefore aids in the isolation of behavioral differences), age is also an indicator of the individual's position in the life cycle. In both cases, of course, it is possible for individuals of a given age to perceive themselves as belonging to a different era or to a different life-stage. Such a phenomenon, however, is not widespread in contemporary America, and age is a valid indicator of the two phenomena under investigation.

For purposes of understanding the impact which the aging process potentially has upon patterns of political behavior, we have selected three themes which run through much theoretical and empirical research among psychologists and sociologists: rigidity, dogmatism, and conservatism; disengagement; and time perspectives. The advantage of considering these three aspects of the aging process is that each concept is currently being investigated, and that each is a viable explanation for observed behavior patterns which can also be interpreted in generational

terms. The strongest possible comparative analysis of the alternative interpretations of the age variable should be made in terms of current and well-respected research being carried out in the various social sciences.

CHAPTER THREE  
APPROACHES TO THE STUDY OF "ATTITUDE"  
AND "FOREIGN POLICY"

3.1 Introduction: The Choice of Domain

Chapter Two set out the theoretical background for the two major analytic thrusts of this study, aging and generational phenomena. It is the task of the present chapter to provide the theoretical background of the domain in which the effects of the age variable are to be analyzed, the domain of attitudes toward foreign policy. In undertaking this task, a number of separate decisions and considerations must be discussed. The first question concerns why we choose to investigate aging and generational phenomena in the foreign policy domain as contrasted with other attitudinal areas. Two general streams of reasoning lead us to this choice: "social reasons" and "scientific reasons."

The "social reasons" underlying this study are embodied in an activity known as social forecasting, an activity which comprises one form of the study of alternative futures. We feel that the cohort analysis of large collections of "old" survey data is a significant approach to such futures estimation. The "scientific reasons" for executing this study in the domain of foreign policy attitudes concern the psychology of unstructured situations, and our belief that we can optimally demonstrate the alternative effects of the age variable in such a situation.

After describing the reasons for constructing the research in a particular way, the next step is the important one of definitions. Both

"attitude" and "foreign policy" are words and concepts imbued with long histories of scholarly use and therefore complexity of definition. The discussion of "attitude" will bring us into the literature of psychologists and social psychologists. The "debate" over the meaning, focus, and boundaries of the term "foreign policy" is given by those political scientists who specialize in comparative politics and international relations. In both cases we are consumers of the specialized knowledge and research of others. Therefore, we do not propose to settle definitional disputes which have developed over years of disciplinary debate and operational contortion. We have located, however, a set of definitions which are consistent with our verbally-stated theoretical interests on the one hand, and consistent with what appears to be a consensus among the various specialists on the other. Following the definitional and theoretical exposition of these two concepts, we combine them into a paradigm which has, in our judgment, a potential utility for the general study of attitudes toward subjects and issues which are relevant to matters of public policy.

### 3.1.1 Social Reasons: The Task of Social Forecasting

In commenting upon the "social reasons" for choosing to execute our research in the area of attitudes toward foreign policy, we refer to the contribution which the scientist can make to the polity and the society, as analytically contrasted with the scientific and academic communities. In a gross way, some might argue, all legitimate scientific endeavors ultimately contribute something to society since in the long run the culture and the society are the repository of all truth and knowledge. There are, however, more manifest ways in which academic research can be relevant to the society and the polity, one of which is the task of social forecasting.

The question of the relationship of public attitudes to governmental policy has been a question of long standing among political philosophers and commentators, and academic students of politics alike. In the present day, however, the importance of public attitudes in the area of foreign policy is perhaps of even more significance. There is no dearth of commentary which argues that problems of foreign policy are the single most critical problems of the day. Never before in our history, or at least so it seems, have the citizens been so divided and so vocal and even vociferous in sounding their foreign policy attitudes. While the public opinion pollster has the task of monitoring the weekly or monthly trends in attitudes toward the key issues of foreign policy, it remains the task of the scientist to design research which can help the society understand and interpret these trends. Certainly there is a need for such research, since both the public and the governmental elites, including the presidency, regularly "use" public opinion in their thought and decision processes.

The study of generational patterns in attitudes toward foreign policy, it is contended, provides a sound empirical basis for the social forecasting of future trends in patterns of such attitudes. The term "forecasting" is employed rather than "prediction" for two reasons. First, "prediction" has been used recently in the social sciences to describe certain kinds of statistical manipulations wherein for a given discrete body of data, certain variables are known to "predict," that is, to account for variance in, a criterion variable. We are here concerned with the ability of the present study to provide a basis for forecasting future trends, not predicting patterns of variance within a body of data. Yet even within this context, there is a difference between the two terms. Thus, we agree with Gordon

and Helmer in their recent study of social prediction that "'forecasting' is used here in the sense of mapping out possible futures, as distinguished from 'predicting' a single future."<sup>1</sup> The trends in attitudes which may be found as a result of the present study may be useful in forecasting a number of conceivable alternative futures.

That scientific research does aim toward estimation of the future is almost definitional, in that the verification of scientific "laws" is based upon the application of the law to different or "future" situations. In the study of political attitudes, however, estimation of the future most often takes the form of "prediction," as public opinion polls or simulations are used to predict the winner of an election. Much less effort has been made toward using attitudinal data in the estimation of long-range future trends. It may be true (and it may not) that past and present political attitudes are too volatile to be of predictive value in estimating generalized future trends. On the other hand, when such trends are grounded in the theory and methodology of generational analysis, such estimation may be more feasible.

The fact remains, however, that for better or for worse, trend predictions--implicit or explicit, "scientific" or intuitive--about periods as far as twenty or fifty years in the future do affect current planning decisions (or lack of same) in such areas as national defense, urban renewal, resource development, etc. Thus, almost anything further we can learn about the basis, the accuracy, and the means for improving such long-term forecasts will be of value.<sup>2</sup>

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<sup>1</sup>T. J. Gordon and Olaf Helmer, "Report on a Long-Range Forecasting Study," Santa Monica, The Rand Corporation, 1964, Unclassified Document AD 607 777, p. 1.

<sup>2</sup>Ibid., p. v.

Trend estimations are, of course, only one of several alternative modes of forecasting political and social futures, as pointed out by Daniel Bell.<sup>3</sup> Yet initial attempts to employ surveys of political attitudes may prove not only interesting but insightful and useful as well. In addition to providing useful social information, the application of survey data to trend estimations will aid in influencing policy-makers to more generally accept social research. As de Jouvenel has pointed out, "knowing that foresight is required, the political scientist must therefore seek to develop that skill in himself, and in his pupils, and offer it to statesmen he has to advise. Foresight is an expertise required in the political scientist: that is my first point."<sup>4</sup>

In describing the "future of political science," Lasswell has also pointed to the importance of social and political forecasting. The five basic intellectual tasks facing the political scientist include goal, trend, condition, projection, and alternative. "In the broadest context, the principal issue is whether the trend of events in America or throughout the world community has been toward or away from the realization of preferred events. The next question goes beyond simple inventories of change and asks which factors condition one another and determine history."<sup>5</sup>

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<sup>3</sup>Daniel Bell, "Twelve Modes of Prediction--A Preliminary Sorting Out of Approaches in the Social Sciences," Daedalus, 93 (1964), pp. 850-852.

<sup>4</sup>Bertrand de Jouvenel, "Political Science and Prevision," American Political Science Review, 59 (1965), p. 29, italics in original.

<sup>5</sup>Harold D. Lasswell, The Future of Political Science. New York, Atherton Press, 1963, p. 2. See also his Chapter 10, "Centers for Advanced Political Science," and the role of a corps of "Forecasters" within them.

Our cohort analysis of foreign policy attitudes may provide a basis for the estimation of alternative future patterns of public feelings in this area. Certainly knowledge concerning public acceptance or rejection of various defense and foreign policies are an important kind of data for policy-makers to have in considering the alternative policies. Pool has argued that survey research could do more than merely study the structure of opinion on well-formulated, already established policy issues. Market research, which has greatly benefited from social science survey research, would certainly be in a primitive state, Pool points out, if it did not concentrate upon patterns of future acceptance of alternative modes of advertising and product packaging.

Given inevitable margins of error, we do have a technology designed to answer such questions as: If we try to sell our program in such and such a fashion, what proportion of the public are we likely to win, and to what degree? This is both the marketing problem and the political problem. If intelligent public officials do not appreciate that this is the way to use opinion research, then we as opinion researchers have not explained our function properly.<sup>6</sup>

One of the most promising technologies in the area of attitude research is that of cohort analysis. In developing the technique, demographers have forecasted not only the size of the population in future years, but also its demographic structure. In bringing the technique to bear upon attitudinal data, social scientists obtain the similar position of being able to estimate the structure of opinions in years to come. The strength of such forecasting, of course, depends upon the comprehensiveness of the research which

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<sup>6</sup>Ithiel De Sola Pool, "Comment" on articles by Carter and Yarmolinsky, Public Opinion Quarterly, 27 (1963), p. 560. See: Adam Yarmolinsky, "Confessions of a Non-User," ibid., pp. 543-548; and Lauror F. Carter, "Survey Results and Public Policy Decisions," ibid., pp. 549-557.

provides the empirical foundation of the predictions. For example, an estimation of the form "Given social conditions A, B, or C, then population groups I, J, and K would be expected to favor policies X or Y but not Z," depends upon research in which: (a) a typology of social conditions has been validated, (b) a selection of population groups has been studied, and (c) the structure of attitudes toward alternative types of policies has been charted.

As a technique for plotting the attitudes of population groups over time, cohort analysis can provide the basis for generating these kinds of estimations. The present study, for example, concentrates upon attitudes toward twelve specific foreign policy attitudes over the period 1946-1966. The historical context of this study is, of course, the twenty years following the end of World War II and the beginning of the Nuclear Era. Future research must continue this task in order to see if the events of the next ten or twenty years follow similar patterns. Until such research becomes feasible, however, cohort analysis of existing bodies of survey data can provide plausible estimations of the parameters of future foreign policy attitudes for those generational and life-stage groups which have been socialized in this twenty-year period.

It must be acknowledged, of course, that the prediction of governmental policies depends upon many factors besides those of public opinion. Yet the understanding of both the broad philosophies underlying governmental policy as well as the specific instances of the policy is enhanced when the public demands and supports are considered.<sup>7</sup> For V. O. Key, the most important

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<sup>7</sup>David Easton, A Framework for Political Analysis. Englewood Cliffs, Prentice-Hall, 1965, pp. 112-117.

linkage between the public and its governors is the variety of ways in which elites are impressed by patterns of public opinion.<sup>8</sup>

In what has come to be known as the most significant groundbreaking theoretical work in the area of foreign policy decision-making, Snyder and his associates have included public opinion as one of the factors which decision-makers take into account, and consequently, one of the factors which students of decision-making should study. Although there have been studies of public attitudes toward foreign policy, Snyder has argued that many of the important questions concerning the structure of public attitudes and how it can be seen as an input to the decision-making process have not even been asked, let alone answered. "That such questions remain unasked suggests that we do not have a set of criteria for specifying relevances in the social system and for analyzing social factors so that connecting links to policy-making can be established."<sup>9</sup> Consequently, in outlining the long-range research tasks which confront students of foreign policy decision-making, Snyder has described a number of studies of foreign policy attitudes.<sup>10</sup> Although the present study does not focus primarily upon foreign policy, our dependent variable, the foreign policy substance

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<sup>8</sup>V. O. Key, Public Opinion and American Democracy. New York, Alfred A. Knopf, 1961, Chapter 21.

<sup>9</sup>Richard C. Snyder, "Toward Greater Order in the Study of International Politics," in James N. Rosenau (ed.), International Politics and Foreign Policy. New York, The Free Press, 1961, p. 41.

<sup>10</sup>Richard C. Snyder and James A. Robinson, National and International Decision-Making. New York, Institute for International Order, 1961, pp. 61-66.

of our age analyses is seen as contributory to this effort to link studies of decision-making to the context of public opinion.<sup>11</sup>

As a final indication of the potential ability of the present study to aid in estimating the foreign policy future, we should point out that although our research focuses upon mass attitudes, the estimation of elite attitudes can also be facilitated by using cohort analyses. Decision-makers operate in the context of a contemporary state-of-affairs, but also against a background of their own historical or generational socialization. In certain decision-making situations, as indicated in the following section, the exigencies of the situation itself limit the amount of personal variation in the alternatives possible. However, in those situations which do allow for such variation, we may ask to what degree a new situation is perceived and acted upon qua new situation, as contrasted with its being perceived as a specific case of an old situation or problem.

In a significant study of decision-making across a number of different contexts, Wildavsky discovered that often the officials under study acted in ways which seemed less than rational.<sup>12</sup> It was not until the perceptions of these political actors were charted that their actions made sense. Wildavsky found in one case study that a certain political problem was perceived by all those involved in terms of the "classic" cleavage of public versus private ownership of electrical power. Once perceived of in

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<sup>11</sup>For another body of theoretical and empirical research focusing upon the linkage between foreign policy decision-making and public opinion, see, respectively: James N. Rosenau, Public Opinion and Foreign Policy: An Operational Formulation. New York, Random House, 1961; and James N. Rosenau (ed.), Domestic Sources of Foreign Policy. New York, Free Press, 1966.

<sup>12</sup>Aaron Wildavsky, "The Analysis of Issue-Contexts in the Study of Decision-Making," Journal of Politics, 24 (1962), pp. 717-732.

such terms, the officials involved acted unhesitatingly in the context of the stereotypes of their adversaries. This and other case studies led Wildavsky to conclude that when the issue is perceived as part of a classic political cleavage, responses to the issue are fairly predictable.

The official acts partly, if not largely, on the basis of his past capital of accumulated information, attitudes, and prepared responses. And it is precisely in regard to the great and longstanding issues (like public versus private power) that his set of attitudes and prepared responses is likely to be best developed and to provide him with a much needed framework within which snap appraisals and judgments may apparently be made with most safety.<sup>13</sup>

The present study, one which provides descriptions of the generational trends in attitudes toward various longstanding political issues, becomes the basis for understanding and estimating the responses of political elites. One criticism of the Johnson Administration's handling of the Vietnam War, for example, is that the war is not seen as a new kind of situation, but rather is wrongly perceived by the Administration as another instance of the "traditional" kind of confrontation between democracy and communism.<sup>14</sup> To the extent that political elites do in fact respond to the climate of opinion and the structure of solutions which existed when they themselves were younger, our cohort analysis may provide the basis for the estimation of future responses to problems of foreign policy.

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<sup>13</sup>Ibid., p. 725.

<sup>14</sup>John Emmet Hughes, "The Lucky Americans," Newsweek, February 19, 1968, p. 21.

### 3.1.2 Scientific Reasons: The Psychology of Unstructured Situations

In referring to the "scientific reasons" for designing a study in a particular way, we are referring to the potential ability of the research design to combine data and data manipulation in a manner which will optimize the knowledge about the basic hypotheses and major analytic variables. If, for example, one wanted to study the sociological basis of militant attitudes among Negroes, there would be greater scientific reason for studying members of the Student Nonviolent Coordinating Committee than in studying members of the Southern Christian Leadership Conference. While the latter study might yield some data on the basic research problem, a study of the former organization would go much further in optimizing the research efforts.

The research principle of optimization is even more important in studies which are demonstrating a new analytic approach, or in one which, like the present study, is applying an established approach to a new body of inquiry. Furthermore, since an additional aim of the present study is to describe and demonstrate a generalized approach to the study of political behavior (i.e., cohort analysis, combined with secondary analysis approach to the study of "old" survey data), it is important that the demonstration be as clear and as persuasive as possible. To choose, in other words, an area of research where few age differences could be measured, would be to suboptimize our time and effort.

Students of personality have learned that the impact of personality variables upon behavior is greatest when the behavior situation is least structured. The greater the social structure of any given situation, the

more delimited the individual is in the behavior which he can choose. Conversely, to the degree that a situation is relatively unstructured, to the same degree the individual has greater latitude in his choice of behaviors, and to the same degree also, background factors such as personality and socialization experience, can become more salient. In the extreme case, where the situation is both highly unstructured and very critical for the individual, psychological "regression" may occur. For example, the individual may revert or regress back to childlike patterns of behavior such as crying or throwing a tantrum. The lesson to be drawn from such behavior is, simply, that background factors have their greatest potential influence upon behavior in those situations wherein other factors are absent.

As indicated in Chapter Two, we see the present study as contributing to the growing literature on political socialization by conceptualizing the historical milieu in which one grew up in terms of an agency of political socialization. It is the contention of this section, therefore, that the domain of attitudes toward foreign policy will offer a better opportunity to analyze the effects of age and generations upon political behavior. This contention, in turn, is supported by the relationship between political socialization and behavior in relatively unstructured situations. While we are not concerned in this study with completely unstructured situations, we are interested in choosing among possible behavioral domains so as to optimize the ability to locate, and therefore understand and explain, differences which can be attributed to the age variable as one agency of political socialization.

Our decision in this matter was that foreign policy attitudes present more of an unstructured situation for the individual than do domestic policy attitudes. Although there has been some work on the structure of "belief systems," it is often the case that attitudes toward domestic policy issues, and their relationship to voting patterns, is the subject of the inquiry.<sup>15</sup> There have been two small exceptions to this statement, both of which, unfortunately, were analyses of the same data.

The authors of The American Voter analyzed ten domestic policy interview items and six foreign policy items in their 1956 election study; a secondary analysis of these same items was done more recently by Axelrod.<sup>16</sup> Using different methodological techniques (the former was based on Guttman scaling while the latter employed cluster analysis) both analyses came to similar conclusions: some structure exists in each of the two policy domains. However, based on such a few items no comparative analysis could be made concerning the relative structure of each set of attitudes, outside of the statements that "these foreign policy questions do evoke a vague pattern, . . . but the extent of this structure is not great," and "the items involved in the domestic issue structure reflect the social welfare controversies of the New Deal-Fair Deal era."<sup>17</sup>

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<sup>15</sup> Philip E. Converse, "The Nature of Belief Systems in Mass Publics," in David Apter (ed.), Ideology and Discontent. New York, Free Press, 1964, pp. 206-261.

<sup>16</sup> Angus Campbell, Philip E. Converse, Warren E. Miller, and Donald E. Stokes, The American Voter. New York, Wiley, 1960, pp. 194-209; Robert Axelrod, "The Structure of Public Opinion on Policy Issues," Public Opinion Quarterly, 31 (1967), pp. 51-60.

<sup>17</sup> Axelrod, op. cit., p. 55; Campbell, et al., op. cit., p. 201.

Thus, the exciting work on the comparative structuring of attitudes between these two behavior domains is yet to be done. There are, however, a number of reasons for believing that attitudes toward foreign policy have less of a basis for structure than do attitudes toward domestic policy. Major distinctions between the two domains as seen from the vantage point of the individual citizen are: differences in information, personal experience, and reference group.

While there has been an increasing amount of attention paid to the politics and events of foreign affairs in the mass media, it is generally true that the citizen receives less policy-relevant information in this area than he does concerning domestic affairs. While spectacular events may receive a great deal of coverage in the media, such as the events of war, information concerning governmental policy in the area of foreign affairs is less complete. In addition to the quantity of information relevant to foreign policy, its quality may be hazy and/or confusing. While the large metropolitan daily newspapers contain much foreign policy news, one need only live in a small town for a few months, and subscribe to its local newspaper, to witness the disparity between foreign policy and domestic policy information.

Related to the nature of the information itself is the basis in personal experience which the individual has for evaluating the information. Few people are in a position to have experienced the effects of foreign policy as they can the effects of domestic policy. Tax proposals, labor legislation, farm subsidies, inflation, and, of course, civil rights problems can all to some extent be personally experienced by the individual. Information which he receives about the political debates and policy

decisions concerning these kinds of issues can be more readily assimilated and evaluated. Personal decisions as to what policy to support, or what policy to hold a legislator accountable for, are more easily made in the realm of domestic politics because of the personal experience the individual may have had with the effects of the policy. Such is not the situation in the case of foreign policy. Because of the quantity and quality of information yielded by the mass media, and because of the lack of a personal experiential basis for evaluating information, the total profile of the information which the individual receives is often highly inadequate for the purposes of structuring policy evaluations.

Two notable exceptions to this generalization should be mentioned. In times of heightened international crisis, the media provide greater depth coverage in terms of both facts and analytic commentary. The major personal experience which citizens do have in relation to foreign policy is that of service in the armed forces and interaction with the draft system. It is not clear, however, if the experience of having served in the armed forces has an effect upon subsequent foreign policy attitudes. Preliminary analyses which we have carried out in relation to service during World War II indicate that there is no difference in foreign policy attitudes between those who served and those who did not. We expect, however, that when similar analyses are done for the Vietnam War, there may be identifiable differences.

In most of the instances of foreign policy, however, individual citizens do not have an experiential basis for evaluating what information they may receive from various sources. In addition, often times information which is important for the total understanding of a foreign policy

situation is officially withheld for purposes of national security. How often is it heard or implied that the President knows better than the citizen since only he is in control of all the various and diverse information and intelligence sources?

A final component of the expectation that there is less structuring of foreign policy attitudes than domestic policy attitudes is the factor of a reference group. In the domain of domestic politics, the political party in American political life is a most pervasive reference group or symbol. Survey research has revealed that the two major American parties are in large part publicly perceived in dichotomous terms: there is a party of the rich and one of the poor; a party for labor and one for business. At least since the days of the New Deal the two parties have served as consistent reference symbols, providing sources of psychological and attitudinal cues for the evaluation of domestic political programs. Southern Democrats and Northeastern Republicans notwithstanding, a citizen may fairly accurately locate his own position on domestic policy matters by reference to one of the two major political parties. On the other hand, party identification is a poor predictor of foreign policy attitudes.<sup>18</sup>

The importance of the political party as it functions in the structuring of attitudes was demonstrated by an analysis included in The American Voter. The Michigan analysts, as indicated earlier, devised a Guttman scale of attitudes toward domestic policy. The logic and method of the Guttman scaling technique produces a set of attitude items which maximizes

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<sup>18</sup>Ithiel De Sola Pool, Robert P. Abelson, and Samuel Popkin, Candidates, Issues and Strategies. Cambridge, The M.I.T. Press, 1965, p. 93; Campbell, et al., op. cit., pp. 198-202; Warren E. Miller, "Voting and Foreign Policy," in James N. Rosenau (ed.), op. cit., pp. 213-230.

the proportion of a sample which has attitudinal scalar types, and minimizes non-scalar types. In this phase of their analysis, the writers cross-tabulated the number of such non-scalar opinions for each respondent by the strength of his party identification. "Persons strongly identified with a party were least likely to exhibit non-scalar attitudes. . . ." <sup>19</sup> These data by themselves do not indicate the causal direction of the relationship; that is, having non-scalar attitudes "causes" weak party identification, as contrasted with the proposition that strong identification with a party "causes" a consistent structuring of attitudes. However, the writers discussed these findings in the context of their other analyses, and concluded in part that political parties "provided the party follower with cues that facilitate the structuring of his opinions." <sup>20</sup>

In addition to the factors of information and personal experience which have been noted above, the behavior of the parties themselves may be responsible for a lack of consistency and correlation between foreign policy attitudes and political party identification. Subtle changes in the foreign policy position of a party in response to the exigencies of world events often make it difficult for the voter to remember the party's position past the last major election campaign. Perhaps more important is the element of bipartisanship which often characterizes a particular foreign policy; as Senator Vandenberg has been quoted as saying, "partisan politics cease at the water's edge." <sup>21</sup> In recent years the American

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<sup>19</sup>Campbell, et al., op. cit., p. 201.

<sup>20</sup>Ibid., p. 202.

<sup>21</sup>Martin Diamond, Winston M. Fisk, and Herbert Garfinkel, The Democratic Republic. Chicago, Rand McNally, 1966, p. 515.

public has been witness to both these factors of change and bipartisan-ship as the incumbent president adopted many of the foreign policy tactics advocated by his severely defeated opponent only to receive both bipartisan support and challenge on these actions. It is no wonder that the basis for evaluating information concerning policy alternatives which is contained in the political party is missing in the case of foreign policy.

Three important factors, therefore, contribute to the fact that foreign policy attitudes are relatively less structured than domestic policy attitudes: the citizen is often in the possession of incomplete, hazy, and distant information; he seldom has a personal experiential basis for evaluating information and policy alternatives; and there is no major reference symbol to provide cues in the evaluation of alternatives. What this situation does indicate is that background factors, such as socialized generational influences, will be quite significant in producing foreign policy attitudes. In sum, optimal use of our research efforts directs us to apply the concepts of aging and generations to an analysis of attitudes toward foreign policy. Interestingly, one of the major studies of the relationship between personality and political attitudes was, for the reasons described here, carried out employing attitudes toward foreign policy.<sup>22</sup>

Given the proposition that foreign policy attitudes are relatively less structured than domestic policy attitudes, we can make a number of statements about the probability that the effects of age will be optimized

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<sup>22</sup>M. Brewster Smith, Jerome S. Bruner, and Robert W. White, Opinions and Personality. New York, Wiley, 1956, especially p. 5. See also: Bjorn Christiansen, Attitudes towards Foreign Affairs as a Function of Personality. Oslo, Oslo University Press, 1959.

in this unstructured situation. Our task here, to reiterate, is to demonstrate that for scientific reasons the study of the age variable is best made in this area of foreign policy attitudes.

A recent article by Greenstein provides a number of propositions concerning the nature of the situations in which analysts are most likely to find the influence of personality upon political behavior.<sup>23</sup> The purpose of Greenstein's review of this area of research is to dispel the belief or the tendency on the part of some scholars that personality categorically does or does not account for variance in patterns of political behavior. Rather, Greenstein argues that the research problem should be formulated in a more scientifically valid manner by asking a number of alternative contingency questions, that is, under what kinds of conditions or situations are personality or other background factors most likely to influence and affect political behavior. While the sociologically oriented "environmentalist" argues that the social environment is the key to understanding behavioral decisions, and the psychologically oriented "predispositionalist" argues that personality traits are the key, the student of political behavior should accept neither point of view uncritically, but ask the contingent question.

Greenstein presents a number of propositions which indicate the kinds of situations in which background variables are likely to be relatively most important; these propositions, of course, are to be considered as contingent questions, capable of being empirically verified. For purposes of the present discussion, the age variable occupies the same scientific

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<sup>23</sup>Fred I. Greenstein, "The Impact of Personality on Politics: An Attempt to Clear Away Underbrush," American Political Science Review, 61 (1967), pp. 629-641.

status as personality variables, in that under certain conditions the potential impact of the effects of age is greater than under other conditions. Background factors, such as age, do not cause attitudes and behavior, Allport has argued; such factors "should, however, be used to show where attitudes come from. . . ." <sup>24</sup>

The following propositions have been taken from Greenstein's discussion, which in turn is based on a selective review of the literature of "psychology and politics" research. The list is not an exhaustive one; yet it does indicate that the kind of attitudinal situation presented by the domain of foreign policy is one in which there is potentially greater impact of the effects of age.

1. "There is greater room for personal variability in the 'peripheral' aspects of actions than in their 'central' aspects." Except for specific crisis periods, foreign affairs are certainly more peripheral to most people than are domestic affairs.
2. "The more demanding the political act--the more it is not merely a conventionally expected performance--the greater the likelihood that it will vary with the personal characteristics of the actor." The lack of a cohesive set of reference symbols in the foreign policy domain preclude "expected" attitudes for most people.
3. "Ambiguous situations leave room for personal variability to manifest itself." Our contention is that foreign policy is attitudinally more ambiguous than is domestic policy.
4. "The opportunities for personal variation are increased to the degree that political actors lack mental sets which might lead them to structure their perceptions and resolve ambiguities." The lack of information and cues from reference groups, research has shown, often influences individuals to rely upon solutions to problems which have been socialized earlier. <sup>25</sup>

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<sup>24</sup>Quoted in ibid., p. 632.

<sup>25</sup>Ibid., pp. 636-638.

The purpose of presenting these propositions is not to indicate that there is absolutely no structure to attitudes toward foreign policy. Rather, we contend that there is relatively less structure in this domain than in other policy domains. Consequently it is in the area of foreign policy attitudes that we would expect to locate a relatively greater impact of the effects of the age variable. In fact, if our hypotheses are verified, there may be a considerable amount of structuring of these attitudes when the appropriate variables are taken into account.

### 3.2 Definitions of Major Concepts

The previous section outlined our reasons for choosing to investigate the age variable in the domain of attitudes toward foreign policy. This section presents some formal definitions of what we mean by the key terms "attitude" and "foreign policy." The aim of any attempt at stipulating definitions, of course, is to clarify the subject of investigation, to make it clear to the reader what is and is not to be included in the analyses, and to impose some order upon a large body of research. While this is the aim of the definitional process, more confusion than clarity might be the unintended result. The terms which we are using here, "attitude" and "foreign policy," have their own academic histories of controversy. Psychologists have debated over the properties of "attitude" as political scientists have argued over the focus and boundaries of "foreign policy." In the discussion to follow, we hope to impose clarity and order by considering the various alternatives and by formulating our own operational definitions where substantial agreement appears among the specialists in the fields under consideration.

### 3.2.1 "Attitude"

An attempt to settle upon a concise definition of "attitude" may be a situation in which political scientists rush in where psychologists fear to tread. The concept of an attitude has been used for over two hundred years, and in this time has been given many meanings and implications. A recent history of the concept summarizes over twenty basic or generic definitions which have appeared in scientific discourse, ranging from "organic drives," through "generalized conduct," to the "sum total of inclinations, feelings, notions, ideas, prejudices, threats and convictions about any specific topic."<sup>26</sup> Fortunately, as the writers of this scientific history point out, "from the chaos of conflicting and diverse definitions of attitude characterizing social psychology in the 1930's, there has emerged a much narrower set of views as to the meaning of this concept."<sup>27</sup>

Despite the narrower focus, there is still a seemingly great amount of variation. In what is perhaps the most recent comprehensive review of currently used definitions of "attitude," Scott, a social psychologist, observes that the definition often depends upon the scholar's academic bias or discipline, his theoretical purpose, as well as the expected outcome of the empirical investigation. In this manner, Scott argues that a single definition of "attitude" is impossible because the definition is

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<sup>26</sup>Melvin L. DeFleur and Frank R. Westie, "Attitudes as a Scientific Concept," Social Forces, 42 (1963/1964), p. 20.

<sup>27</sup>Ibid.

so intricately tied up with research and theory of attitude measurement.<sup>28</sup> As the ultimate in the use of operational definitions, an attitude becomes that which is measured by an attitude scale. In his review of attitude research Scott describes eleven dimensions along which attitudes may be defined or measured. He notes, however, that the question of whether or not such a complex multidimensional definition should be used in any particular research is a question to be bypassed, since most of these eleven dimensions have never been operationalized successfully by their authors.<sup>29</sup>

Despite the persistence of a diversity of definitions, dimensions, and measurable components, there does seem to exist somewhat of a consensus among contemporary students of attitudes as to the basic meaning and attributes of "attitude." For students of politics, the most salient definition of "attitude" is made in terms of action, for whatever else an attitude has within it, it possesses at least an inclination toward some preferred action. Thus Allport states that an attitude is "a subjective or mental state of preparation for action"; or, more formally, "attitude connotes a neuro-psychic state of readiness for mental and physical activity."<sup>30</sup> In reviewing the development of attitude as a concept within the disciplines of psychology and sociology, Newcomb comments that "both disciplines have,

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<sup>28</sup>William A. Scott, "Attitude Measurement," final draft of article to appear in G. Lindzey and E. Aronson (eds.), Handbook of Social Psychology, Revised Edition, forthcoming, 1969.

<sup>29</sup>Ibid., pp. 4-8.

<sup>30</sup>Gordon W. Allport, "The Historical Background of Modern Social Psychology," in G. Lindzey (ed.), Handbook of Social Psychology, Volume I. Reading, Massachusetts, Addison-Wesley, 1954, p. 43.

in one way or another, regarded attitudes as tendencies to act with regard to some specifiabile entity."<sup>31</sup> Similarly, Childs, long-time editor of the Public Opinion Quarterly, has recently stated that "an attitude may be said to be a person's disposition or tendency to act or react in a particular manner."<sup>32</sup> Although this verbal definition indicates the importance of "attitudes" for the study of public policy, we are still in need of an analytic definition which will allow us to focus attention upon those components of an attitude which may be analyzed in the present study.

A careful reading of a number of psychologists and social psychologists indicates that somewhat of a consensus exists in this area. An attitude may be operationally defined as a psychological construct relating to an individual's tendencies to act, which is formed by three elements or components: the cognitive, the affective or evaluative, and the behavioral. In other words, while a "complete" attitude possesses all three components, the understanding of action tendencies toward any given object or class of objects demands knowledge of each component.

Utilizing these three components, we can obtain a better understanding of what an attitude is, and how the concept relates to policy preferences. What is important for the present study is not so much a definition which will eliminate all the ambiguity produced by two hundred years of use, but a definition which recognizes this ambiguity, yet attempts to focus on those attributes which specialists in the field of attitude studies agree

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<sup>31</sup>Theodore M. Newcomb, "On the Definition of Attitude," in Marie Jahoda and Neil Warren (eds.), Attitudes. Baltimore, Penguin Books, 1966, pp. 22-23, emphasis added.

<sup>32</sup>Harwood Childs, Public Opinion: Nature, Formation, and Role. Princeton, D. Van Nostrand, 1965, p. 13.

upon. The greatest amount of agreement concerns the first two of the three components indicated above. Newcomb, Turner, and Converse designate an attitude as having at least two basic properties: "we shall refer to stored cognitions that have some positive or negative associations as attitudes."<sup>33</sup> Virtually identical definitions have been put forth by Katz<sup>34</sup> and Milbrath.<sup>35</sup> Secord and Backman, while agreeing with these two components, add the behavioral component as well.<sup>36</sup>

Of course, different vocabularies are used by different writers to describe the content of these three components of the concept of attitude. Thus, the cognitive component includes: information,<sup>37</sup> degrees of certitude,<sup>38</sup> the informational context,<sup>39</sup> beliefs about the relationships

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<sup>33</sup>Theodore M. Newcomb, Ralph H. Turner, and Philip E. Converse, Social Psychology. New York, Holt, Rinehart and Winston, 1965, p. 40.

<sup>34</sup>Daniel Katz, "The Functional Approach to the Study of Attitudes," Public Opinion Quarterly, 24 (1960), p. 168.

<sup>35</sup>Lester W. Milbrath, "Beliefs: A Neglected Unit of Analysis in Comparative Politics," in Edward L. Pinney (ed.), Comparative Politics and Political Theory. Chapel Hill, University of North Carolina Press, 1966, p. 45.

<sup>36</sup>Paul F. Secord and Carl W. Backman, Social Psychology. New York, McGraw-Hill, 1964, p. 97.

<sup>37</sup>Newcomb, Turner, and Converse, op. cit., p. 28.

<sup>38</sup>Milton Rokeach, "Attitudes, Values, and Political Behavior," paper presented at the Annual Meeting of the American Political Science Association, 1966, p. 4.

<sup>39</sup>M. Brewster Smith, "The Personal Setting of Public Opinions: A Study of Attitudes Toward Russia," Public Opinion Quarterly, 11 (1947), p. 508.

among objects,<sup>40</sup> perceived characteristics of the object,<sup>41</sup> and intellectual understanding of the object.<sup>42</sup> Cognitions alone do not form attitudes. There is substantial agreement that when the cognition which an individual holds concerning an object is accompanied by some form of affective evaluation, an "attitude" is present. The term "feeling" was almost universally used to describe the affective component of an attitude. Differences among attitude theorists emerge when their discussions become more specific; that is, when the particular dimensions of feeling are described. Thus, for example, Scott argues that the affective component of an attitude is liking or disliking, approving or disapproving.<sup>43</sup> Newcomb, Turner, and Converse merely refer to positive or negative feelings, which in turn may be specified, for example, as anger or distrust.<sup>44</sup>

There is substantial agreement, therefore, that an attitude is a cognition with an affective feeling or evaluation attached to it. As indicated above, an attitude can be totally defined as a tendency to act; yet there is some argument as to whether this action tendency is actually a component of the attitude structure itself, or if action is a separate entity only implied by the existence of the attitude. Katz, for example, takes the former position, indicating that in fact the attitudes themselves

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<sup>40</sup>Chester A. Insko and John Schopler, "Triadic Consistency: A Statement of Affective-Cognitive-Conative Consistency," Psychological Review, 74 (1967), p. 362.

<sup>41</sup>Katz, op. cit., p. 167

<sup>42</sup>William A. Scott, "Psychological and Social Correlates of International Images," in Herbert C. Kelman (ed.), International Behavior. New York, Holt, Rinehart and Winston, 1965, p. 72.

<sup>43</sup>Ibid.

<sup>44</sup>Newcomb, Turner, and Converse, op. cit., p. 48

possess an "action component."<sup>45</sup> Similarly, Newcomb, Turner, and Converse have stated that an attitude represents "a state of readiness for motive arousal."<sup>46</sup> Taking the latter position, Insko and Schopler describe this third attribute of an attitude as the "conative" component, and indicate that it "implies" some kind of goal-directed activity.<sup>47</sup> In this similar vein, Scott argues that the action component of an attitude consists "of a set of responses to the object that the person deems appropriate in the light of its perceived attributes," that is, in light of the evaluated cognitions.<sup>48</sup>

An attitude has, thus, in addition to a cognitive and an affective component, an implicit or explicit action or behavioral component. It should be noted, however, that the various psychologists whom we have consulted on this matter are not always clear as to their "position" in this "disagreement." The specific language employed by a student of attitudes may not necessarily have been specifically chosen to convey one position rather than the other. Perhaps only a more detailed analysis of the writings of each of these writers will reveal if they see a major disagreement on the theoretical status of the action component, and what position they take. As consumers of psychological knowledge, we can only point out this area of apparent disagreement. As should also be clear, such a difference may be of greater importance to psychologists interested in intra-attitude research and to others who are interested in the complexities of attitude measurement. For political scientists, the important lesson is

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<sup>45</sup>Katz, op. cit., p. 169.

<sup>46</sup>Newcomb, Turner, and Converse, op. cit., p. 40.

<sup>47</sup>Insko and Schopler, op. cit., p. 364.

<sup>48</sup>Scott, "Psychological and Social Correlates. . . ," loc. cit.

that attitudes can be measured, and that such measurements can be used also to measure behavioral or action tendencies.

Consideration of the behavioral component of attitudes by political scientists raises another analytic problem, one of greater salience to students of political behavior. If we are interested in political behavior, then to what extent can the results of survey research be used to measure either actual behavior or behavioral tendencies? It is interesting, for example, to acknowledge that for students of political behavior, the major research tool, and consequently the major source and type of information, is attitudinal in nature. Thus the political scientist must ask if the behavioral component of attitudes, whether it be explicit or implicit, is an accurate representation of actual behavior. It is true, of course, that verbal accounts of actual behavior--either past or anticipated--are not identical to the behavior itself. Yet students of political behavior have relied mostly on verbal accounts of voting behavior, as well as of other forms of political participation. Because we are seldom in a position to observe and measure actual behavior, we acknowledge the possible and probable slippage between attitudes and the actual behavior which the attitudes hopefully imply. On the other hand, as students of political behavior, we maintain our interest in the actions or behaviors which attitudes imply; that is, political scientists, like psychologists, most often must be satisfied with the study of behavioral tendencies (attitudes) rather than the behavior itself.

"To what extent do attitudes really measure behavior?" is a question asked by psychologists as well as political scientists. To some extent, the validity of attitudinal measurements has been established by the

ability of public opinion pollsters to accurately predict elections, not only predicting the winner but also accurately estimating the percentage of the two-party vote to be obtained by each candidate. Yet even this source of validity is subject to some question when we learn that several alternative statistical and theoretical models of a given election, even when applied to the same data, can yield relatively accurate predictions.<sup>49</sup> We are, therefore, still left with the possibility of a lack of isomorphism between attitude and behavior.

This lack of isomorphism was dramatically illustrated in the now classic study done by LaPiere in 1934.<sup>50</sup> LaPiere made a trip throughout the United States in which he and his companions were given service by over 250 hotels, restaurants, and similar public establishments. His companions were a Chinese couple; the travellers were refused service on the grounds of racial characteristics only once. Yet when LaPiere sent questionnaires to these establishments, over ninety per cent replied that they would not serve Chinese clients. Another interestingly designed study of the relationship between attitudes and behavior was done by Lohman and Reitzes in 1954.<sup>51</sup> The authors located a group of subjects who all lived in the same urban neighborhood and belonged to the same labor union. These subjects supported their union's policy of non-discrimination against Negroes; yet all the subjects belonged to and supported a local neighborhood organization whose aim was to keep Negroes

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<sup>49</sup>Pool, et al., op. cit., pp. 102-106.

<sup>50</sup>Richard T. LaPiere, "Attitudes vs. Actions," Social Forces, 13 (1934), pp. 230-237.

<sup>51</sup>Joseph D. Lohman and Dietrich C. Reitzes, "Deliberately Organized Groups and Racial Behavior," American Sociological Review, 19 (1954), pp. 342-348.

from moving into the area. Thus, whatever the attitudes of the individuals may have been, two contradicting behaviors were observed.

Recently, a study of prejudice and discrimination against Negroes within a college environment found a similar apparent disjunction between attitude and behavior. Pro-integration behavior was observed even among those students who, on previously administered questionnaires, held anti-Negro and pro-segregation attitudes.<sup>52</sup> A similar kind of result was found in one of the areas in which political scientists can actually analyze behavior, legislative roll-call voting. Miller and Stokes obtained measurements upon a sample of congressmen's voting records, as well as their own attitudes on the subject and their perception of their constituency's attitude on the subject. For the issue of civil rights, the correlation between the congressmen's attitude and behavior was a substantial 0.72. However, the correlation between the congressmen's behavior and their perception of how their constituency felt was an even higher 0.82. Here, as in the studies cited above, the social situation can affect the correspondence between held attitudes and actual behavior.<sup>53</sup>

Do these examples indicate that no importance should be given to the study of attitudes when we wish to study behavior? Jahoda and Warren recently answered this kind of question as follows: "This does not mean,

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<sup>52</sup>James M. Fendrich, "Perceived Reference Group Support: Racial Attitudes and Overt Behavior," American Sociological Review, 32 (1967), pp. 960-970. Fendrich, like the other studies cited in this area, conclude that the apparent discrepancy between attitudes and behavior is due to differential social constraints and pressures. His footnotes provide a fairly comprehensive bibliography of the sociological research in this area.

<sup>53</sup>Warren E. Miller and Donald E. Stokes, "Constituency Influence in Congress," American Political Science Review, 57 (1963), pp. 45-56.

however, that social scientists should renounce the study of attitudes. What it does imply is a need for theoretical models which do justice to the complexities of the relationships between attitudes and behaviour, and for theory-guided investigations of these relationships."<sup>54</sup> In this context, DeFleur and Westie have suggested that ". . . in order to analyze the relationship between the verbal and action dimensions of attitudes, it may be necessary to add to attitude scales a systematic categorization of the system of social constraints within which individual behavior ordinarily takes place."<sup>55</sup> This is, of course, a difficult task for psychologists and political scientists alike. In the Miller-Stokes study described above, a beginning, however, was made in the proper direction: it is empirically clear, as an initial approximation, that the policy preferences of the constituency, as well as the congressman's own perceptions of his constituency's attitudes, are an important socio-political constraint upon the voting behavior of the congressman. Of course, as clear measurement of the attitude, the context, and the behavior as is present in this congressional study is not always available. Where such measurement is lacking, more caution must be exercised in the behavioral interpretation of the results.

Any student of political behavior, therefore, must acknowledge the problem of the potential discrepancy between attitude and behavior. The present study of attitudes toward foreign policy, however, faces a further problem: that of the possibility of ever being able to observe foreign

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<sup>54</sup>Jahoda and Warren (eds.), op. cit., p. 211.

<sup>55</sup>Melvin L. DeFleur and Frank R. Westie, "Verbal Attitudes and Overt Acts," in Jahoda and Warren (eds.), op. cit., p. 221.

policy behavior. When psychologists attempt to measure both attitudes and behavior, whether in experimental or field situations, the subject or respondent is often in the position to be able to act out a behavior which is connected to the attitude. In the present study, however, the behavior connected with the foreign policy attitude may not be within the respondent's own sphere of action. For example, a respondent may hold a negative evaluation of the Soviet Union, and further believe that the best behavioral response to the threatening international situation is to "bomb Russia now"; yet he personally is not capable of enacting such a disposition. Unless the respondent happens to be a high-level governmental official, the behavioral aspects of attitudes cannot be translated into observable actions.

This does not mean, however, that there can be no measurable behavioral component in attitudes toward foreign policy. At one level, every citizen of a democratic society is capable of acting out attitudes toward other nations, for example, by economically boycotting French wine or German Volkswagens.<sup>56</sup> At the manifestly political level, of course, there is always the possibility of contacting a congressman or other governmental official, or even basing one's vote upon foreign policy preferences. When attempting to analyze the results of survey research, however, the actual behavior which might be part of a foreign policy attitude is difficult to measure. It is at this point that the basic definitional premise upon which attitudes are studied must be recognized; that is, an attitude is a predisposition toward action or behavior.

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<sup>56</sup>Arnaud de Borchgrave, "De Gaulle's Cold War on the U.S.," Newsweek, January 22, 1968, pp. 36-38. This is an account of an informal public boycott of French products in the United States.

An attitude in the realm of public policy, where personal actions may not be feasible, is nonetheless a predisposition to action in regards to such public policy. In fact at least two eminent social psychologists have taken this position. Solomon Asch has stated that ". . . an attitude has the character of a commitment to a policy. In this respect it represents a dynamic assessment of a given situation with reference to an end."<sup>57</sup> M. Brewster Smith, a social psychologist who has long studied the structure of attitudes toward foreign policy, and the Soviet Union in particular, has described the action-policy nexus as follows:

Both the cognitive and the affective elements of a person's attitudes patently have much to do with what he wants to have done about Russia. The latter aspect we have singled out as the individual's policy orientation: the measures toward Russia that he supports and opposes.<sup>58</sup>

In the study of the policy attitudes held by members of the mass public, the behavioral component, therefore, is measured as being the action preferred or desired by the respondent. Thus in the present study measurements of the respondents' policy preferences toward various foreign policy objects will be obtained. Such action preferences are an important aspect of the body of knowledge concerning differential patterns of political behavior. It is important to know, as is the focus of the inquiry made in this study, if such preferences change over time, and if such changes can be attributed to generational or life-stage phenomena. Chapter Five will describe the specific sets of foreign policy preferences which will be analyzed for the years 1946-1966.

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<sup>57</sup>Solomon E. Asch, "Attitudes as Cognitive Structures," in Jahoda and Warren (eds.), op. cit., p. 32.

<sup>58</sup>Smith, loc. cit.

### 3.2.2 "Foreign Policy"

Like the term "attitude," "foreign policy" has also been the subject of an extended debate among interested scholars. This debate appears to be focused upon the question of the relationship between foreign policy and international relations: to what extent are the terms "really" synonymous, to what extent is one a subset of the other, and if so, which is the parent set. For purposes of this study we accept Rosenau's definition of foreign policy as a society's attempt to maintain and/or alter its external environment.<sup>59</sup>

While this definition appears to be clear enough for our purposes, there is some question as to whether any particular instance of foreign policy is within the proper scholarly domain of the student comparative government or the student of international relations. Historically, this "controversy" has been stimulated by the development of a globally-oriented academic study of international relations. As theorists attempted to fashion questions about the dynamic processes of international interactions, they implored their colleagues not to be bound to traditional country-by-country studies of foreign policies. Quincy Wright, for example, argued that "the adjective 'foreign' implies the point of view of one nation and thus is not suitable for use in a discipline, or study, designed to be of universal validity and understanding."<sup>60</sup> More recently,

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<sup>59</sup>James N. Rosenau, "Foreign Policy as an Issue-Area," in Rosenau (ed.), op. cit., p. 22.

<sup>60</sup>Quoted in Fred A. Sondermann, "The Linkage Between Foreign Policy and International Politics," in James N. Rosenau (ed.), International Politics and Foreign Policy. New York, The Free Press, 1961, p. 11.

Sondermann has observed that an event or action which is a "foreign policy" action from one point of view is an "international relations" action from a different point of view.<sup>61</sup>

The foreign policies of various nations, of course, constitute an important part of the data for the study of international relations.<sup>62</sup> The degree of importance, however, is a matter whose discussion is outside the scope of this study. When studying attitudes toward foreign policy, we are, in the present context at least, studying the attitudes of the members in a particular social-political system toward the maintenance or alteration of that system's external environment. In other words, the attitudes analyzed in later chapters reflect the respondent's orientation toward what he thinks should be done by his country. To use Wright's words, it is the point of view of one nation which is being considered. We hope, of course, that among the various scholars who will be able to benefit from a reading of our analysis there will be students of international relations who will fit these data on foreign policy into their theories of the working of the international system.

Attitudes toward foreign policy can also be analytically distinguished from attitudes toward domestic policy. Definitionally, attitudes which do not focus upon societal attempts to deal with the external environment, but rather with the internal environment, are domestic rather than foreign

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<sup>61</sup> Ibid.

<sup>62</sup> See, for example: Richard C. Snyder, H. W. Bruck, and Burton Sapin (eds.), Foreign Policy Decision-Making. Glencoe, The Free Press, 1962. While the aim of this book is to describe theoretical and empirical research in the area described by the title, the subtitle of the book demonstrates the linkage between foreign policy and international relations: "An Approach to the Study of International Relations."

policy attitudes. Of course any given political issue may involve both kinds of policy at the same time or at different times. Pye has pointed out, for example, that among the unstructured political systems of many non-Western nations, appeals to foreign policy crises are often a political tool used by leaders to silence domestic political opposition.<sup>63</sup>

Certainly there are direct links between the management of a nation's domestic financial structure and its foreign policy; and also indirect links between racial unrest within the nation's borders and its "image" abroad may exist. Karl Deutsch has described historical situations in which Roman Catholics within a country are seen as "agents" of an international system; similarly, Protestants have been so viewed in Catholic countries.<sup>64</sup> The kinds of examples described here indicate that it is difficult to definitionally separate foreign and domestic policy matters in a way which is valid across time and space. It may be an empirical question as to whether a particular issue being analyzed is a matter of foreign policy, domestic policy, or both. As Deutsch has observed:

In short, the question of whether at some particular time and place there are multidimensional political communities (political systems which involve political responses on a wide range of topics) or whether particular groups are primarily extensions of narrow-focus international systems is an empirical question of fact which can be verified in terms of response characteristics and transaction flows.<sup>65</sup>

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<sup>63</sup>Lucian W. Pye, "The Non-Western Political Process," in Rosenau (ed.), International Politics and Foreign Policy, op. cit., p. 292.

<sup>64</sup>Karl W. Deutsch, "External and Internal Political Relationships," in R. Barry Farrell (ed.), Approaches to Comparative and International Politics. Evanston, Northwestern University Press, 1966, p. 7.

<sup>65</sup>Ibid.

Further complications in the separation of foreign and domestic policy attitudes come about as we find some evidence that the two kinds of attitudes are sometimes correlated with one another; this may result from the fact that the two kinds of attitudes are often reflections of more basic personality traits. Publications of the Michigan survey research analysts indicate that there is little correlation between domestic and foreign policy attitudes, a finding supported by the simulation of presidential elections done by Pool and his associates.<sup>66</sup> On the other hand, studies by Smith, and Belknap and Campbell indicate that during the 1952 presidential election campaign at least, foreign policy preferences were predictive of presidential choice.<sup>67</sup> Similarly, V. O. Key found in his longitudinal study of presidential elections that party "Switchers" behaved in accord with their foreign policy preferences as well as their domestic policy orientations.<sup>68</sup>

The association between these two kinds of attitudes may merely represent the co-occurrence of political attitudes representing a consistent political ideology. However, some individuals may not distinguish between domestic and foreign issues. In his work on cognitive complexity, for example, Scott has been attempting to identify the conditions under which

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<sup>66</sup>Campbell, et al., op. cit.; Pool, et al., op. cit.

<sup>67</sup>Paul A. Smith, "Opinions, Publics, and World Affairs in the United States," Western Political Quarterly, 14 (1961), pp. 698-714; George Belknap and Angus Campbell, "Political Party Identification and Attitudes Toward Foreign Policy," Public Opinion Quarterly, 15 (1952), pp. 601-623.

<sup>68</sup>V. O. Key, The Responsible Electorate. Cambridge, Massachusetts, The Belknap Press, 1966.

individuals separate or fail to separate different cognitive stimuli.<sup>69</sup> While a lack of cognitive complexity might explain the convergence of foreign and domestic policy attitudes, another stream of research points to personal ideologies as being the source of political attitudes. McClosky, for example, has found similarities in the patterns of inter-correlations between foreign policy issues and personality traits (such as ethnocentrism and hostility) and between these traits and domestic policy issues.<sup>70</sup> Similar kinds of findings between personal ideology and attitudes toward foreign policy matters have been located by Scott and by Worchel.<sup>71</sup>

There are, therefore, at least two sources of the confusion of domestic and foreign policy attitudes. First, any given issue may at the same time be salient for both kinds of policy; and second, even if the issues themselves are distinguishable, the attitudes may be closely correlated due to political or personal reasons. While we recognize the need to formulate research programs aimed at separating out the various causes of the overlap, the present study is concerned solely with attitudes toward issues which are manifestly foreign policy in nature. A strictly operational definition, therefore, of what we mean

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<sup>69</sup>William A. Scott, "Cognitive Consistency, Response Reinforcement, and Attitude Change," Sociometry, 22 (1959), pp. 219-229; and "Cognitive Complexity and Cognitive Balance," Sociometry, 26 (1963), pp. 66-74.

<sup>70</sup>Herbert McClosky, "Personality and Attitude Correlates of Foreign Policy Orientation," in Rosenau (ed.), Domestic Sources of Foreign Policy, op. cit.

<sup>71</sup>William A. Scott, "International Ideology and Interpersonal Ideology," Public Opinion Quarterly, 24 (1960), pp. 419-435; Philip Worchel, "Social Ideology and Reactions to International Events," Journal of Conflict Resolution, 11 (1967), pp. 414-430.

by "foreign policy" attitudes is given by a description of the specific attitudes to be analyzed. In a single-sample study, this could be done by identifying the scales or factors to be used. In a multiple-survey study such as the present one, verbal description of the question-sets to be analyzed across time constitutes the operational definition. Chapter Five will describe the various surveys and questions used, and how the decisions to use them were made. At that time we will be in a better position to stipulate a more formal operational definition.

With our verbal definition stated here and our operational definition forthcoming, we can still refine what we mean when speaking of foreign policy attitudes. Certainly no single study is able to cover all relevant aspects of foreign policy. Thus, to describe the scope of any particular study an attempt must be made to indicate the theoretical components of a broad policy domain so that the operational definition can be stated in meaningful terms. All attitudes are focused upon what attitude theorists call attitude "objects." Thus, what are the various objects which may be studied in an analysis of foreign policy attitudes, that is, what categories of objects will efficiently and accurately describe past, present, and future studies in this area? We suggest that objects within any public policy domain can be classified as Actors and Actions. Further subclassifications can be made which, when operationally defined, are capable of describing any given study. The following list specifies the subsets of these two general categories (indicated by letters) and a number of examples of the kinds of foreign policy objects which the categories and subcategories describe (indicated by numbers). These examples, of course, are meant to be suggestive rather than exhaustive.

Actors

## A. People: Individual and Collective

1. specific individuals
2. individual political and societal roles
3. political groups
4. nations - self
5. nations - other

## B. Things

1. armaments
2. nuclear energy
3. fallout shelters
4. technology
5. law

Actions

## A. Events

1. diplomatic crises
2. wars and other military encounters
3. technological breakthroughs

## B. Processes

1. negotiations, bargaining
2. deterrence
3. escalation
4. integration
5. development

## C. State-of-Affairs

1. world government
2. disarmed world
3. unilateral victory
4. coexistence
5. state of war

This scheme of categorizing attitudinal objects is not limited to the study of foreign policy. It has, in fact, been adapted from a research design the aim of which was to study individual attitudes toward the self and others in the context of interpersonal relations.<sup>72</sup> For students of political behavior, these categories can be used in other policy domains as well. The study of attitudes toward civil rights policies, for example, could focus on some of the following attitudinal objects: (actors) various electoral candidates and incumbents, civil rights groups, militant activist leaders, leaders of nonviolent movements; (things) housing, education, voting, job opportunities; (events) passage of legislation, riots, national demonstrations; (processes) picketing, sit-ins, voter registration drives, political education; and (states) equality, hostility, fear, integration, separation.

A major potential advantage of employing such a scheme in research covering different policy domains is the determination of similarities and differences within the domains. When empirical propositions emanating from various research projects are stated in the language of these categories, cross-domain generalizations can be formulated. Similarly, the location of empirical regularities in one domain can lead to researchable hypotheses in other domains. In the particular case of the present study, for example, the substance of the attitudes analyzed concerns foreign policy, but the primary analytic interest is in the age variable. The

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<sup>72</sup>Peter G. Ossorio and Keith E. Davis, "The Self, Intentionality and Reactions to Evaluations of the Self," in C. Gordon and Kenneth J. Gergen (eds.), Self in Society. New York, Wiley, 1966, in press. The first use of Ossario and Davis' work to delineate classes of foreign policy objects may be found in: Davis B. Bobrow, "Liberation Wars, National Environments and American Decision-Making," in Tang Tsou (ed.), China in Crisis. Chicago, University of Chicago Press, 1968, in press.

employment of a categorization scheme which is not unique to foreign policy matters in the assessment of the foreign policy trends can help to formulate age-related hypotheses in other behavioral domains.

The utility of such a list of attitudinal subjects depends in part upon the willingness of a community of scholars to employ it in their research activities. The initial demonstration of such utility, however, must be made by the one who advocates the use of the scheme. Later in this chapter, therefore, we will demonstrate how this list of objects can be incorporated into a general paradigm for the study of attitudes toward public policy. Since the paradigm can be used as a map of the entire domain of attitudes toward a given policy area, any single study or body of studies can be initially understood by the use of the paradigm as a location device. The present study, for example, employs twelve separate attitudinal question-sets as the medium for the analysis of the age variable. Since these twelve attitudes cover a variety of attitudinal objects, one way to convey the scope of the study is to allocate the question-sets to the list or paradigm. In Chapter Five, when the operational definitions of the twelve foreign policy question-sets are presented, the paradigm will be used to locate each question-set.

While such a list of attitudinal objects can be used within a single study (as will be demonstrated in Chapter Five), it can also be applied to a whole research literature. Cumulative research demands not only that the relevant literature be carefully scanned, but that it be organized in some conceptual manner. Since individual studies can consider only a limited number of variables, the allocation of a large number of studies to a conceptually based typology or paradigm may reveal hypotheses which

no single study has considered. In the course of the preliminary research and reading done in preparation for the present study we had occasion to review a large number of studies of attitudes toward various foreign policy objects. The allocation of these studies to a generalized policy attitude paradigm was found to be quite useful. For the reader interested in this foreign policy attitude literature, and as a further demonstration of the paradigm, approximately forty separate studies are represented in Appendix D.

This section has attempted to describe what we mean by the term "foreign policy." In the course of this discussion, a number of caveats have been presented which have attempted to distinguish foreign policy from international relations on the one hand, and domestic policy on the other. We have stipulated a generally-held verbal definition of "foreign policy"; an operational definition indicating the particular attitudes to be analyzed in this study is forthcoming in Chapter Five. Between these two kinds of definitional statements, an attempt has been made to theoretically delimit categories of objects which populate the domain of foreign policy. There still may be some argument, however, as to whether "foreign policy" is the best term which describes this study; other descriptors may be equally or more useful. For example, since this is a longitudinal study covering the years 1946-1966, "perceptions of the Cold War" might have been chosen. Other examples, which do describe certain aspects of the study, were considered: active and passive defense policy preferences, reactions to international threats, orientations toward continental defense. Each of these substitutes for "foreign policy attitudes" might appeal to a different audience, and each is a formally accurate

description of a portion of the content of the attitudes to be analyzed. Yet we chose to retain the more general term as it reflects not only the overall pattern of the specific attitudes which could be located and subjected to cohort analysis, but our own general long-term interests as well. In sum, although we see this study as an analysis of the age variable, we also see it as contributing to and benefiting from the general study of foreign policy attitudes.

### 3.3 A Paradigm for the Study of Public Policy Attitudes

The preceding two subsections have defined the two major concepts which describe the domain in which aging and generational phenomena will be analyzed: attitudes and foreign policy. Each of these two concepts, in turn, has been described as having certain basic components. By combining these two sets of components a two-dimensional matrix can be constructed which represents a generalized paradigm (Figure 3.1) for the study of public policy attitudes.

It is our belief that this paradigm can be useful in describing the location of any given study (or part of a study) of attitudes toward foreign policy. The research literature in this area is quite expansive, and thus some need for a general mode of theoretical organization exists. It is important to be able to determine if one's own particular research interest has been investigated before. Thus, the location of one's interests, as well as the location of previous research in the area, within this matrix paradigm will supply some very useful information. Similarly, any general reader of a research report could tell at a glance, when the paradigm is used, whether the research is of interest to him. For a

FIGURE 3.1

## A PARADIGM FOR THE STUDY OF ATTITUDES TOWARD PUBLIC POLICY

Public Policy Object Dimension	Attitude Dimension		
	Cognitive	Affective	Behavioral
Actors			
Things			
Events			
Processes			
States-of-Affairs			

reader in a policy-making position, the location of any particular study within the general paradigm would aid him in the initial evaluation of the study. As increased research into the area of attitudes toward foreign policy becomes feasible, some mode of organization is necessary to reduce the amount of duplication, and conversely, locate areas of underdevelopment.

A closer look at the paradigm indicates that not only can there be attitudes toward a number of different kinds of policy objects, but that each object can be the "possessor" of each of the three components of an attitude. Certainly these components are separable, as a number of attitude theorists have learned; yet it is not to be assumed that all three of the components will be consistent with each other for a specific attitude object. Rather, it has been found that each of the components may vary independently of the other; as Smith has observed, "all three of these categories seem necessary for an adequate description of the attitudes . . . ." <sup>73</sup> In cross-sectional studies of foreign policy attitudes in which each of the three attitude components can be measured for each respondent (as contrasted with measurements for life-stage and cohort groups which is the case in the present study), allocation of the attitudinal data to the paradigm might reveal where major inconsistencies are likely to take place. For example, respondents may be consistent in their attitudes toward an "enemy" actor: they cognize a nation as being an enemy, they evaluate its intentions as hostile, and they advocate policies of aggressive containment. On the other hand, attitudes toward war may be inconsistent: war is cognized as being a terrible thing, it is evaluated

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<sup>73</sup>M. B. Smith, loc. cit.

as undesirable, but it is advocated as a national policy preference to some particular international incident. The application of this paradigm to such studies, in other words, would not only help locate the study itself within the annals of research, but could also help locate significant research findings and hypotheses in the data.

The application of the paradigm to multiple-survey and/or longitudinal studies is also useful. The selection of appropriate surveys from a large data bank, and selection of items from the surveys might depend upon the overall pattern of available attitudinal items. In such a situation, the paradigm could be used to compare one survey with another as to their similarity in structure. Studies such as the present one which focus on a number of different attitudes, but which are organized around a specific analytic interest (i.e., age groups) may best convey attitude content to the reader through use of the paradigm. In addition, as indicated above, the application of this paradigm to a large research literature (demonstrated in Appendix D) can serve to locate areas of repetition and areas of needed research.

Although the paradigm as constituted in Figure 3.1 can become quite useful to researchers, we recognize that it is still quite general in form. Interested scholars, therefore, are invited to expand the matrix in ways which will allow it to be more useful. A number of suggestions can be made which make the paradigm more descriptive while still maintaining its two-dimensional structure. For example, a more complete list of actor objects could include all the nations of the world as well as their presidents, prime ministers, or premiers. Conceivably, there are as many potential rows in this matrix (i.e., public policy objects) as

there are interested researchers. Similar expansion can take place in the structure of the columns or attitude components. As described earlier in Subsection 3.2.1, the concept of attitude has been around for many years, and is characterized by many alternative definitions. Recent research in the area of attitude measurement has revealed many conceivable dimensions of attitudes; even the three components used here are capable of being subdivided. Thus, our general two-dimensional paradigm is capable of being refined in various ways so as to increase its utility.

Although the two basic dimensions of the paradigm are attitudinal components and public policy objects, additional dimensions can also be added so as to eventually make the paradigm more encompassing. In the case of foreign policy, a third possible dimension is that of nationality of respondents; while our study concentrates upon samples of American respondents, the same two-dimensional matrix can be repeated for other nations. A fourth dimension to the study of these attitudes would be the level and sophistication of measurement. Mass public opinion polls collect relatively simple responses on a wide range of issues. Studies have been designed which concentrate upon foreign policy attitudes, and probe much deeper into the psychological foundations of these attitudes; in addition, such studies are able to obtain more refined scalar responses to questions than is possible in most public opinion polls.<sup>74</sup> Although many other suggestions for additional dimensions could be made, we will suggest only one more, that of level of respondents. A good deal of attention has been given to the various "publics" which comprise public

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<sup>74</sup>See, for example: McClosky, op. cit.; Smith, Bruner, and White, op. cit.; and Christiansen, op. cit.

opinion, for example, the attentive public, the opinion-makers, the opinion-submitters.<sup>75</sup> Any given national sample survey usually includes only a small number of those whose attitudes can be characterized as being very aware, attentive, and involved with matters of foreign policy. Thus, specialized studies often have to be designed to specifically measure the attitudes of these "foreign policy elites."<sup>76</sup> A permutation of this kind of study is one which compares mass and elite attitudes toward foreign policy issues. While Deutsch has attempted such research for France and Germany, such comparisons have not been made for many other nations.<sup>77</sup>

In summary, the paradigm proposed here has two basic dimensions which can be used to describe attitudes toward public policy within a single study as well as across a number of studies. This paradigm can be expanded to include additional dimensions which might be needed to describe policy attitudes in specific instances. In the present study the paradigm will be used for two purposes: first, to locate the twelve question-sets in the cells of the matrix as a way of operationally defining the scope of the study; second, to locate the various generational and aging process conclusions in the paradigm as a way of pointing to areas of generalization for these two aspects of the age variable.

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<sup>75</sup>Almond, op. cit.; Rosenau, Public Opinion and Foreign Policy, op. cit.

<sup>76</sup>James N. Rosenau, National Leadership and Foreign Policy: A Case Study in the Mobilization of Public Support. Princeton, Princeton University Press, 1963.

<sup>77</sup>Karl W. Deutsch, Arms Control and the Atlantic Alliance. New York, Wiley, 1967; Karl W. Deutsch, Lewis J. Edinger, Roy C. Macridis, and Richard L. Merritt, France, Germany and the Western Alliance. New York, Scribner's, 1967.

### 3.4 Summary

The purpose of this chapter has been twofold, to indicate why we choose to study the effects of the age variable within the domain of foreign policy attitudes, and to derive definitions of the concepts of "attitude" and "foreign policy" as they will be used in our research. In the course of pursuing these interests, the discussion has ranged over a wide variety of research literature in the fields of political science, psychology, and sociology. Two important propositions become evident over the course of this chapter. First, it is clear that the study of political behavior has much in common with the study of behavior, and thus can both benefit and contribute to the empirical investigation of behavior. Second, it is also clear that the process of interdisciplinary borrowing is a difficult one, for in each field there are unsettled theoretical issues, unanswered operational questions, and unresolved empirical differences. The definitions which have been settled upon, we hope, do justice to the various debates and differences while at the same time provide a reasonable basis for pursuing our own research goals.

The reasons for choosing to execute the research in the foreign policy domain are quite straightforward. Problems and issues of foreign policy are both important and longstanding for the American people and government. The attempt, therefore, to provide an empirical basis to the forecasting of future parameters of public attitudes toward matters of foreign policy is a socially meaningful undertaking. Cohort analysis provides a model of analysis as well as a set of techniques for deriving such empirical information.

As pointed out in Chapter Two, the primary focus of this study is the investigation of the age variable, as well as development of techniques for measuring the alternative interpretations of age differences. The mapping of trends in foreign policy attitudes provides, in our estimation, an optimal domain for the demonstration of these conceptual and methodological interests. This, in turn, is dependent upon our knowledge of the psychology of unstructured situations. It is in such situations that the influence of socialized factors, such as those given by the age variable, are most likely to be observable. It is believed, further, that attitudes toward foreign policy can be characterized by their relative lack of psychological structure.

We have accepted Rosenau's formulation of "foreign policy" as the attempts by a society to maintain and/or alter its external environment. The definition of "attitude" was arrived at after reviewing a fairly comprehensive quantity of the relevant attitude measurement literature, as well as discussing the matter with colleagues working in psychology. In this definition, an attitude is seen as a mental state of preparation for action composed of three identifiable components: the cognitive, the affective, and the behavioral.

The final consideration of this chapter was an attempt to put the conceptions of foreign policy and attitude together in a way which would facilitate the study of the impact of age upon public policy attitudes. The result of these operations is a general and, hopefully, a useful paradigm for the study of attitudes toward public policy in several domains.

CHAPTER FOUR  
THE MEASUREMENT OF GENERATIONAL  
AND AGING PROCESS EFFECTS

4.1 Introduction: Cohort Analysis, A Technique for the  
Developmental Study of Behavioral Change

Chapter Two provides the basis for expecting that significant variations in political behavior will be associated with alternative interpretations of the age variable. This chapter will introduce and describe a method whereby these age-related behavior patterns can be analyzed. This method, "cohort analysis," provides a mode of investigation in which a number of successive cross-sectional samples of the national population can be used to map public attitudes in a longitudinal perspective. In the course of this chapter, we will first describe the development and the logic of cohort analysis as it is used in the study of aggregate or systemic change; subsequently we will discuss the development of cohort analysis in demography, and its application in survey research. Second, an example of the "mechanics" of cohort analysis will be provided, as applied to a study of American partisan identifications. Having done this, we will then be in a position to more formally specify the requirements of any cohort analysis and the various decisions made in operationalizing these requirements in the present study. Finally, the general advantages and shortcomings of cohort analysis as a general investigative technique will be discussed, as well as its more general applicability to other research problems which have traditionally interested political analysts.

#### 4.1.1 The Panel Study

One way of characterizing our interests in the age variable is in terms of the "developmental" aspects of attitude patterns. That is, we wish to describe the way in which attitudes are stable or variable over time as a function either of the aging process or of generational experiences. Perhaps the most direct method of ascertaining developmental patterns is through the "panel technique" first introduced to attitude research by Lazarsfeld and his associates.<sup>1</sup> A "panel" is a sample of respondents which is interviewed and then reinterviewed at various intervals. By obtaining successive measures on many individuals, the analyst can relate individual development of behavior to other variables, e.g., other behavioral characteristics of the individual, attributes of the situation, etc. While the panel technique has been used to a limited extent in the analysis of political behavior, there are a number of factors which prohibit it from being useful in the present kind of study.

For a long-term panel study to be useful, a number of successive measurements must be made upon the same individuals. Thus the first major problem the user of the panel technique encounters is keeping track of all the respondents during the length of the study. If the original sample is small, this may be no problem. Kuhlen, for example, cites a study in which the behavior of a family of six respondents was traced over a period of fifty years.<sup>2</sup> If one is interested solely in

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<sup>1</sup>P. F. Lazarsfeld and Marjorie Fiske, "The 'Panel' as a New Tool for Measuring Opinion," Public Opinion Quarterly, 2 (1938), pp. 596-612.

<sup>2</sup>Raymond G. Kuhlen, "Aging and Life-Adjustment," in James E. Birren (ed.), Handbook of Aging and the Individual. Chicago, University of Chicago Press, 1959, p. 881.

generic developmental processes, as contrasted with the generalizability of the observed processes, then such a small sample may serve the analyst's purposes. Studies of political behavior, however, have traditionally attempted to be more generally valid than the above six-person study. In a country as residentially and geographically mobile as is the United States, the problems of keeping track of a national panel over a long period of time may severely curtail the feasibility of the study.

The first set of problems in using the panel technique, therefore, are practical problems. Over a long period of time respondents in a sample large enough to yield generalizable results may become lost to the researchers, that is, sample mortality takes place, or in fact the sample may be reduced by actual biological mortality. Similar practical problems include factors of expense, manpower, and even, perhaps, intellectual fatigue. It is interesting to note that the two most prominent panel studies of political behavior, the Columbia voting studies, were of a small scale in terms of both geographical area and time span covered.<sup>3</sup>

The second set of problems of the panel technique are methodological in nature. As in any test-retest situation, the analyst is faced with the effects of the measurement technique itself upon subsequent measurements. While any interview may be "reactive" in the sense that the act of measurement affects the phenomenon being measured,<sup>4</sup> there are indications that the situation is aggravated in the case of studies relying

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<sup>3</sup>Paul F. Lazarsfeld, Bernard Berelson, and Hazel Gaudet, The Peoples' Choice. New York, Duell, Sloan, and Pearce, 1944. Bernard Berelson, Paul F. Lazarsfeld, and William N. McPhee, Voting. Chicago, University of Chicago Press, 1954.

<sup>4</sup>Eugene J. Webb, Donald T. Campbell, Richard D. Schwartz, and Lee Sechrest, Unobtrusive Measures: Nonreactive Research in the Social Sciences. Chicago, Rand McNally, 1966, p. 18.

on the panel technique. Campbell and Stanley have presented a number of "threats to validity" inherent in several kinds of experimental and quasi-experimental research designs.<sup>5</sup> Those which are applicable to the panel study include the following: testing, the effects of the testing situation upon subsequent tests which the panel takes; instrumentation, changes in the measurement instrument or in the observers; selection, the effects of respondents leaving the sample through geographical or biological mortality wherein such respondents are not a random sample of the original panel; and interactions of these various sources of invalidity with the specific behaviors being measured.

#### 4.1.2 Cohort Analysis in Demography

Although the panel technique does possess these various methodological and logistic problems, it nonetheless does allow the investigator to estimate the parameters and correlates of individual differences in patterns of development. Not all trend studies of human behavior, however, demand knowledge of such individual differences. If one is interested in the patterns of behavioral changes characteristic of whole populations, then knowledge of individual differences may not be necessary. Such is the primary thrust of the subfield of sociology called demography. Demographers are interested in various kinds of changes in populations: changes in their size, composition, and characteristics. In this respect the focus of demography is much like the focus of the present study. First, descriptive questions are asked about the changes or trends in the social or

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<sup>5</sup>Donald T. Campbell and Julian C. Stanley, "Experimental and Quasi-Experimental Designs for Research on Teaching," in N. L. Gage (ed.), Handbook of Research on Teaching. Chicago, Rand McNally, 1963, p. 175.

political system, and then an attempt is made to determine the correlates and causes of such patterns of change as can be empirically described.

This study also shares with demography some of the theoretical interests described in Chapter Two, especially those of generational analysis. For example, one question given a fair amount of attention concerns generational differences in occupational patterns: to what degree do the occupational patterns of the cohort born in 1900 differ from the patterns of the cohort born in 1930?<sup>6</sup> In dealing with this kind of question, demographers have developed "cohort analysis," a technique by which demographic trends can be traced from census to census. For example, the analyst may want to estimate trends in the percentage of cohort members engaged in agricultural occupation in the cohort born in 1900. Assuming that individuals enter the labor market at the age of twenty, the demographer looks at the twenty-year-olds in a 1920 census, the thirty-year-olds in a 1930 census, etc. In this way he can trace the 1900 cohort as it ages through time. For comparative purposes, he may execute the same kinds of observations for the 1930 cohort, in order to see if there are generational differences in patterns of agricultural employment.

It is important to note that such a procedure cannot yield information about the individual changes over time, as a panel study might produce. On the other hand, the demographer is most often not interested in individual differences, but in more systemic changes in various populations. To this

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<sup>6</sup>Otis Dudley Duncan and Robert W. Hodge, "Education and Occupational Mobility: A Regression Analysis," American Journal of Sociology, 68 (1963), pp. 629-644; Otis Dudley Duncan, "The Trend of Occupational Mobility in the United States," American Sociological Review, 30 (1965), pp. 491-498; and Otis Dudley Duncan, "Occupation Trends and Patterns of Net Mobility in the United States," Demography, 3 (1966), pp. 1-18.

end the census records provide information on the total population, while panel techniques can only provide data for samples of the population. Since a census is theoretically, if not actually, a complete enumeration of the population, behavioral measurements of the twenty-year-olds in a 1920 census and measurements of thirty-year-olds in a 1930 census are in fact observations of the very same people. As the demographer Norman Ryder has observed, "the cohort record, as macrobiography, is the aggregate analogue of the individual life-history."<sup>7</sup> Among the aggregate or systemic processes which demographers have studied using cohort analysis are migration, fertility and mortality rates, demographic transition patterns, urban growth, and population projections.<sup>8</sup>

#### 4.1.3 Cohort Analysis in Survey Research

Although the census records provide important information concerning elements of population change, not all information necessary to the understanding of human behavior can be obtained from these sources. In terms of the present study, for example, we need only point out that the "census-takers" do not ask each household for attitudinal preferences concerning foreign policy matters. Therefore, the results of attitude research must

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<sup>7</sup>Norman B. Ryder, "The Cohort as a Concept in the Study of Social Change," American Sociological Review, 30 (1965), p. 859.

<sup>8</sup>See, for example: Nathan Keyfitz, "The Population Projection as a Matrix Operator," Demography, 1 (1964), pp. 56-73; Norman B. Ryder, "The Process of Demographic Translation," ibid., pp. 74-82; Hope T. Eldridge, "A Cohort Approach to the Analysis of Migration Differentials," ibid., pp. 212-219; Norman B. Ryder, "Problems of Trend Determination during a Transition in Fertility," Milbank Memorial Fund Quarterly, 34 (1956), pp. 5-21; and Otis Dudley Duncan and Robert W. Hodge, "Cohort Analysis of Differential Natality," Population Research and Training Center, University of Chicago, no date (c. 1960).

be used. In a very significant article, William Evan suggested that the demographer's conception of cohort analysis can be applied to survey research.<sup>9</sup>

Evan recognized that long-term opinion change could, theoretically, be studied with the panel technique, but in practice the problems involved have limited panel studies to short-term investigations, as pointed out above.<sup>10</sup> Since the demographer has been successful in studying trends by using a series of cross-sectional (census) measures, Evan suggested that the student of attitudes and opinions could use a similar approach. The main difference between cohort analysis of census data and cohort analysis of survey data is in the "samples" of individuals being analyzed. Census data provide a "one-hundred per cent sample" for many demographic indicators, while survey data provide comparatively small samples of the population.<sup>11</sup> Therefore, while the demographer is in a position to obtain measurements on the very same people over time, the survey researcher obtains measurements for samples of the same people over time. While the two applications of cohort analysis have this logistic difference, the logic of the technique remains exactly the same.

Table 4.1 may be called a "cohort analysis matrix" and represents the generic form in which a series of national sample surveys must be cast in order to construct cohort comparisons. Each column in the table represents

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<sup>9</sup>William M. Evan, "Cohort Analysis of Survey Data: A Procedure for Studying Long-term Opinion Change," Public Opinion Quarterly, 23 (1959), pp. 63-72.

<sup>10</sup>Evan, op. cit., p. 64.

<sup>11</sup>For an evaluation of the use of sampling techniques in the collection of the United States Census, see: Conrad Taeuber and Morris H. Hansen, "A Preliminary Evaluation of the 1960 Censuses of Population and Housing," Demography, 1 (1964), pp. 1-14.

TABLE 4.1

## COHORT ANALYSIS MATRIX: FIVE-YEAR INTERVALS

1946 <sup>a</sup>	1951	1956	1961	1966
21-25 <sup>b</sup>	21-25	21-25	21-25	21-25
26-30	26-30	26-30	26-30	26-30
31-35	31-35	31-35	31-35	31-35
36-40	36-40	36-40	36-40	36-40
41-45	41-45	41-45	41-45	41-45
46-50	46-50	46-50	46-50	46-50
51-55	51-55	51-55	51-55	51-55
56-60	56-60	56-60	56-60	56-60
61-65	61-65	61-65	61-65	61-65
66-70	66-70	66-70	66-70	66-70
71-75	71-75	71-75	71-75	71-75

<sup>a</sup>Each column is represented by a sample survey taken in the given year.

<sup>b</sup>The cohort represented by the uppermost pair of diagonal lines was born in 1921-25. Thus the entries in this diagonal "row" may be read as follows: "The cohort born in 1921-25 was 21-25 years old in 1946; it was 26-30 years old in 1951, 31-35 years old in 1956, etc."

a national sample survey; we have chosen five such surveys at five-year intervals representing a twenty-year period.<sup>12</sup> The respondents in each of these surveys have been sorted into five-year age groups. Using this format, the development of any given generational cohort can be traced by observing successive samples of the cohort across our five sampling points. For example, assume that we are interested in the cohort born in the 1921-1925 interval. This cohort occupies the 21-25 age-group cell in a 1946 sample; in 1951 all members of this cohort have aged five years, and thus the cohort would now occupy the 26-30 age-group cell in a 1951 sample. The cohort can similarly be "aged" another five years by looking at the 31-35 age-group cell in a 1956 sample; the operation can be continued for as many sample-survey points for which we have data.

In the actual cohort analysis of any specified aspect of political behavior, the cells in this cohort analysis matrix would be occupied by measurements on that behavioral variable. In other words, a cross-tabulation of age-by-variable is obtained for each of the sampling points, and those frequencies, percentages, or scores are entered into the matrix. By scanning the matrix diagonally, the pattern of these scores are then traced for a given cohort across time. Again, it should be emphasized that we are not observing the very same individuals over time, but representative samples of the same population groups over time.

Several kinds of comparisons can be constructed from the cohort data. For example, the analysis can focus upon the pattern of attitudes of one particular cohort, looking at several different attitudes, or upon a single

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<sup>12</sup>This example of a cohort matrix is in fact the model to be used in this study. The decision to employ five-year intervals within and between surveys will be discussed later in this chapter.

attitude, comparing one generational cohort with another. As an illustration, consider a hypothesis similar to those described in Chapter Two, in which the relationship between the Depression experience and Republican-Democratic voting patterns is explored. In this case, the voting patterns of the cohort which was twenty-one years old in 1932 could be compared with the patterns of the cohort which was twenty-one years old in 1900. A final kind of cohort comparison, and the kind to be presented in this study, involves comparing all cohorts on a number of different attitudes within a delimited area--in this study, various attitudes toward foreign policy matters.

Although the analytic technique being described is called cohort analysis, information about the generational cohorts is only one aspect of the information which can be obtained. As indicated in Chapter Two, we are interested in two basic aspects of the age variable, generational effects and aging process effects. Cohort analysis can also provide information about the effects of the aging process. Referring again to Table 4.1, each row represents a particular stage in the life cycle. The top row, for example, represents the 21-25 year life-stage in each of the sampling points. The individuals represented in the cells of the rows are not samples of the same individuals (as contrasted with the individuals in the cells of the diagonals who are samples of the same groups). Rather, each row represents a series of samples of individuals who occupy the same stage in the life cycle. One may hypothesize, for example, that there is something inherent in youth which leads to liberal political beliefs. If the cells of the cohort matrix represent scores on a liberalism scale, then this hypothesis would predict that the row representing "youth" would be more liberal than rows representing older life-stages.

The technique of cohort analysis, therefore, can be applied to survey data. As long as the attitudinal information for each individual is accompanied by his age, the individuals represented in each sample can be sorted into age groups; by doing this to a succession of samples attitudinal patterns can be traced across both generational and aging process dimensions. Since cohort analysis in fact allows the observation of both these effects of the age variable, it is possible to investigate the relative impact of each effect upon a given data set. The ambiguity of age-related behavior differences outlined in Chapter Two may be eliminated by testing for both generational and aging process effects on a single longitudinal sequence of observations. It may be determined, for example, that greater homogeneity in attitudes toward foreign aid is associated with cohort phenomena (the diagonals) than with life-stage phenomena (the rows).

## 4.2 The Mechanics of Cohort Analysis

### 4.2.1 An Empirical Example

Since cohort analysis will be used for all of the aging and generational comparisons made in the following chapters, it is important that the "mechanics" of the cohort matrix (Table 4.1) be clearly understood. This section, therefore, will present an example of the utility of cohort analysis in distinguishing between the alternative interpretations of age differences in political behavior. Chapter Two pointed out that cross-sectional studies produce ambiguous results since the two age explanations cannot be distinguished. A study of party identification was described in which four cross-sectional samples were juxtaposed in order to demon-

strate that increasing age brings increasing identification with the Republican party.<sup>13</sup> Fortunately for purposes of illustration, Crittenden has presented some of his data in a form amenable to cohort analysis. Table 4.2 presents the percentage of Republican identifiers for each of four national samples; each sample was stratified by Crittenden into twelve four-year age groups. Our only addition to this table is the insertion of the diagonal lines and age-group labels, which will be explained shortly.

Crittenden's own analysis is based on the fact that in each of the four samples the older age groups are more Republican than are the younger age groups. For example, in the 1946 sample the younger age groups are about fifty per cent Republican while the older age groups are about sixty per cent Republican. For Crittenden these data provide dramatically clear evidence of the influence of the aging process upon increasing Republicanism: "Every possible comparison of the four youngest groups with the four oldest groups each year yields 128 possible observations. In only five of these 128 observations is the older group not more Republican than the younger."<sup>14</sup>

While this interpretation of the table is at first convincing, cohort analysis of these same data do not produce the same overwhelming results. The diagonal lines added to Crittenden's table define the cells which represent the "development" of the nine cohorts for which the full complement of four observations is available. Crittenden's hypothesis states that as individuals age there is an increasing tendency to support the Republican

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<sup>13</sup> John Crittenden, "Aging and Party Affiliation," Public Opinion Quarterly, 26 (1962), pp. 648-657.

<sup>14</sup> Ibid., pp. 650-651.

TABLE 4.2

AN EMPIRICAL EXAMPLE OF COHORT ANALYSIS<sup>a</sup>

Age Intervals	Cohort <sup>b</sup> Labels	1946	1950	1954	1958	Life-Stage <sup>c</sup> Labels
	A					
21-24	B	46	41	42	43	(1)
25-28	C	54	43	45	51	(2)
29-32	D	51	44	39	49	(3)
33-36	E	59	50	47	49	(4)
37-40	F	59	53	51	42	(5)
41-44	G	70	58	56	44	(6)
45-48	H	58	58	52	34	(7)
49-52	I	58	50	89	62	(8)
53-56		60	60	66	47	(9)
57-60		65	75	58	63	(10)
61-64		58	86	75	65	(11)
65-68		70	60	90	66	(12)
TOTAL		50	57	66	63	

<sup>a</sup>Cell entries are the percentage of each cell which identified with the Republican party in the year indicated. Source: John Crittenden, "Aging and Party Affiliation," *Public Opinion Quarterly*, 26 (1962), p. 651. Data represent the "high" education group in Crittenden's analysis.

<sup>b</sup>Capital letters indicate the cohort diagonals.

<sup>c</sup>Numbers in parentheses indicate life-stage rows.

party; hence, as a particular age cohort gets older it should be characterized by an increasing percentage of Republicans. Cohort analysis allows us to view these nine age groups as they get older between 1946 and 1958. As described in the previous example, the sample of 21-24 year olds in 1946 is a sample of the very same cohort of persons represented by the 25-28 age group in the 1950 sample, etc. Crittenden's hypothesis directs us to look for a linear increase in Republicanism as each cohort gets older. In no instance of these nine cohorts do we find this relationship.

Table 4.3 has been prepared to summarize these data as they pertain to the aging-Republicanism hypothesis. By comparing adjacent observations for each cohort, for example, the change from 1946 to 1950, we can see if there is an increase or decrease in Republicanism. A "+" indicates an increase and supports the hypothesis; a "-" indicates a decrease in Republicanism. The first three columns of this table represent the changes in Republicanism between each adjacent sample. Not only is there no cohort with the hypothesized pattern of three pluses, but with one exception (Cohort H), there are more decreases in Republicanism with age than there are increases.

One may argue that comparison of adjacent samples increases the probability of random fluctuation, and that the influence of aging could best be seen by observing longer-range trends. Therefore, the next three columns in Table 4.3 have been computed. The fourth and fifth columns represent changes in Republicanism over eight-year intervals for each cohort, 1946-1954 and 1950-1958. Again, as in the first three columns of this table, the decreases in Republicanism outnumber the increases. In the

TABLE 4.3  
 ALTERNATIVE TESTS OF THE AGING-REPUBLICANISM HYPOTHESIS<sup>a</sup>

Cohort	4-Year Differences			8-Year Differences		12-Year Difference
	1946- 1950	1950- 1954	1954- 1958	1946- 1954	1950- 1958	1946- 1958
A:	-	-	+	-	+	+
B:	-	+	-	-	-	-
C:	-	+	-	*	-	-
D:	-	+	-	-	-	-
E:	-	-	+	-	+	+
F:	-	+	-	+	-	-
G:	-	+	-	+	+	+
H:	+	-	+	*	+	+
I:	+	*	-	+	-	+

<sup>a</sup>A "-" indicates that the percentage of Republicans decreased from the first observation point to the second and fails to support the hypothesis; a "+" indicates that the percentage of Republicans increased, and supports the hypothesis; a "\*" indicates no difference. Cell entries derived from Table 4.2.

sixth column, the twelve-year differences are represented; of the nine cohorts, five demonstrate an increase in Republicanism while four cohorts demonstrate a decrease. Furthermore, where increases in Republicanism in fact occur, they occur in the context of a general political trend toward Republicanism as indicated by the "Total" percentages given in Table 4.2. Thus between 1946 and 1958 a general political trend developed, from Democrats to Republicans, from Truman to Eisenhower, from the long-time "in-party" to the long-time "out-party." It is expected, therefore, that there should be increases in Republicanism regardless of any aging effects; if aging produces Republicanism as well, then the total increase in Republicanism should have been quite dramatic.

It was pointed out in the previous section that cohort analysis allows us to directly confront the aging and generational interpretations of those age-related differences in behavior found in a single set of data. This can be illustrated by using Crittenden's table. The inquiry may be posed in the following way: Is there greater homogeneity in attitudes associated with generational factors or life-stage factors? If it is true that each successive life-stage is characterized by greater percentages of Republicanism, then the variation within each life-stage should be small, that is, each row in Table 4.2 should contain a homogeneous set of entries. On the other hand, the generational interpretation of Table 4.2 predicts that each generational cohort is characterized by a homogeneity of attitudes since the predispositions established early in life have a certain degree of durability. An application of cohort analysis to Crittenden's data can lead to at least a preliminary answer to this apparent dilemma. The total amount of variability or fluctuation can be calculated for each group vector

of Republicanism percentages, rows for the life-stage groups and diagonals for the cohort groups. Operationally, these are the absolute differences between each pair of adjacent percentages, that is, 1946-1950, 1950-1954, and 1954-1958. By then calculating the average fluctuation associated with life-stages and comparing this with the average fluctuation associated with cohorts, we are in a position to decide which of these two aspects of the age variable produces greater homogeneity in attitudes, that is, which age effect is the more powerful explanation.

Table 4.4 presents these calculations as derived from Table 4.2. The entries for Cohort A, for example, are derived as follows:  $46 - 43 = 3$ ,  $43 - 39 = 4$ , and  $39 - 49 = 10$ . In the ideal hypothetical situation, if the generational effect imposed a perfect homogeneity of attitudes, these "fluctuations" would all be zero. But given both sampling error and behavioral changes, there is in fact fluctuation both for cohorts and for life-stages. The question then becomes one of determining which effect comes closest to verifying the hypothetical case. As Table 4.4 demonstrates, there is on the average less fluctuation, or more homogeneity, associated with generational cohorts than with aging process or life-stage groups.

In this section we have endeavored to illustrate the technique of cohort analysis. The use of successive cross-sectional samples, when sorted on the age of the respondents, can result in a longitudinal mapping of the behavior under study. In illustrating the technique it was decided to use a published data set included in Crittenden's study which focused upon the problems of age-correlated behavior. The ambiguity of the age variable in cross-sectional studies, as described in Chapter Two, was

TABLE 4.4  
 COHORT AND LIFE-STAGE CHANGES IN REPUBLICANISM<sup>a</sup>

Age Groups	1946- 1950		1950- 1954		1954- 1958		Total
<u>Cohorts</u>							
A:	3	+	4	+	10	=	17
B:	10	+	3	+	5	=	18
C:	1	+	1	+	7	=	09
D:	6	+	3	+	22	=	31
E:	1	+	6	+	10	=	17
F:	12	+	31	+	42	=	85
G:	8	+	16	+	3	=	25
H:	2	+	2	+	7	=	11
I:	15	+	0	+	9	=	24
<u>Life-Stages</u>							
1:	5	+	1	+	1	=	07
2:	11	+	2	+	6	=	19
3:	7	+	5	+	10	=	22
4:	9	+	3	+	2	=	14
5:	6	+	2	+	9	=	17
6:	12	+	2	+	12	=	26
7:	0	+	6	+	18	=	24
8:	8	+	39	+	27	=	74
9:	0	+	6	+	19	=	25
10:	10	+	17	+	5	=	32
11:	28	+	11	+	10	=	49
12:	10	+	30	+	24	=	64

MEAN COHORT CHANGE = 26.3

MEAN LIFE-STAGE CHANGE = 31.1

<sup>a</sup>The change values represent the absolute value of the difference between each pair of adjacent percentages as found in Table 4.2 -- in the diagonals for the Cohorts, in the rows for the Life-stages.

present in this study of the relationship between the aging process and identification with the Republican party. In his own analysis of the data which is reproduced in Table 4.2, the author concluded that "aging seems to produce a shift toward Republicanism in the period from 1946 to 1958. . . .the pattern appears to be linear."<sup>15</sup> The application of cohort analysis to these same data demonstrates that there is in fact no dominant aging-Republicanism correlation. Our purpose here was not to single out one specific study and subject it to complete reanalysis; rather, this study is the only one found in which (1) aging was the primary analytic variable, and (2) a data set was published in a form amenable to cohort analysis. Hopefully this exercise demonstrates the way in which cohort analysis can be applied to many different kinds of data sets so as to more precisely locate aging and generational effects.

#### 4.2.2 Some Decisions Pertaining to the Application of Cohort Analysis

The preceding sections have outlined the basic logic and operations of the cohort analysis of survey data. As a generalized model for the secondary analysis of existing survey data, cohort analysis offers a great deal of promise. The user of the technique, however, must make a number of basic decisions before the analysis can take place; it is the purpose of this section to outline these problems, and describe our own decisions.

Perhaps the most important decision basic to the structure of any particular cohort analysis is the size of the age groups into which each sample must be stratified. As pointed out in Chapter Two, the number of years separating one generation from another may depend upon which social

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<sup>15</sup>Ibid., p. 654.

philosopher one chooses to consult. Furthermore, as Berger has written,<sup>16</sup> the increased tempo of technological advance, and hence social change, makes it difficult to establish the lines which separate one cohesive generation from another. The concept of a cohort, on the other hand, allows the analyst to be somewhat arbitrary in his designation of the interval of years which defines a cohort.<sup>17</sup> On what grounds, therefore, do we stratify our set of national samples?

The example of cohort analysis based upon Crittenden's data employed four-year age groups because Crittenden had decided to use surveys spaced four years apart. Such a decision may be based on the availability of items to be analyzed or upon more theoretically-oriented grounds. In his situation, Crittenden wished to use surveys corresponding to national election years, but avoid presidential elections.<sup>18</sup> In Table 4.1, the generalized cohort matrix, we chose to use five-year groups.

It should be remembered that the logic of cohort analysis is this: as we travel through five years of history by moving from one survey to the next survey, each cohort should also be "aged" by five years. In this way we are assured of measuring the same population group (or a sample of it) at both points in time. If for purposes of theoretical interest or purposes of availability of data surveys representing five-year intervals are chosen, then the intervals into which each survey should be stratified are five-year intervals.

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<sup>16</sup>Bennett M. Berger, "How Long is a Generation?" British Journal of Sociology, 11 (1960), pp. 10-23.

<sup>17</sup>Ryder, "The Cohort as a Concept . . . ," op. cit.

<sup>18</sup>John Crittenden, "The Relationship of Age to Political Party Identification," unpublished Ph.D. Dissertation, University of North Carolina, 1960.

The first general rule of cohort analysis which guides decisions, therefore, is that the interval separating the set of surveys chosen for analysis must be the same as the interval used to stratify each of the surveys. The second general rule closely follows: once an interval has been selected, it must be used throughout the construction of the cohort analysis matrix. If five-year intervals have been selected, then every sample used must be stratified into five-year intervals; similarly, only surveys appearing at five-year intervals should be used. If changes are made in the intervals used in a single cohort analysis, severe problems of inference can develop. For example, suppose we are using a five-year interval to analyze the following set of surveys: 1946, 1951, 1956, 1961, and 1966. Each of these surveys will have been stratified into five-year age groups, and the birth years of these age groups can be projected back into time with the result that the birth years will also be represented as five-year intervals. If, after the 1961 survey a 1965 survey is used rather than a 1966 survey, we cannot be sure of the results thus obtained, for the same cohorts cannot be aged a full five years. If the stratification scheme is changed and the 1965 sample is sorted into four-year age groups, then we are not dealing with the same five-year birth cohorts analyzed in the first part of the cohort matrix. While estimation procedures may be devised to construct inferences about generations or life processes from the use of varying age group intervals, the clearest approach is to maintain the equality of within-survey and between-survey intervals.

Given this rule of equality of intervals, therefore, by what criteria are specific intervals chosen for use? The decision may be made by choosing

the interval between surveys first, or choosing the age-stratification intervals; in either case, selection of one set of intervals determines the size of the other intervals. In the present study, two streams of reasoning led us to employ five-year intervals. Certain empirical factors concerning the size of national samples and the instability of statistical manipulations based upon small numbers of respondents, directed us to stratify each sample into five-year intervals. Certain practical problems concerning the availability of question-sets directed us to choose surveys which appeared at five-year intervals. The following discussion will describe the details of these two elements of our decision.

The choice of what surveys to use in a cohort analysis can be directed by several factors. As indicated above, Crittenden chose his four surveys to coincide with nonpresidential national elections. Theoretical interest might lead an analyst to surveys in presidential election years, or in years of identifiable domestic or international events or crises. Certain practical elements of the research situation might determine the number of surveys available for analysis, as well as the intervals between them.

If, for example, one is interested in applying cohort analysis to attitudes toward minority rights, then one key study to secure for reanalysis would be Stouffer's 1955 surveys. If comparable survey items were known to appear in a 1947 survey, indicating an eight-year interval, then the analyst would do well to search for a 1963 survey which included the same kinds of items. To some extent it was this kind of situation which led us to choose five-year intervals for the present study. In the following chapter procedures are discussed through which the theoretical notions of attitudes toward foreign policy, as discussed in Chapter Three,

are translated into research operations. The scope of the data bank employed in this study will be discussed, as will be the limitations which it imposed upon the choice of surveys.

For purposes of the present discussion, we may anticipate our subsequent discussion somewhat. It is desirable to use as much of the twenty-year data bank as possible, spanning the period 1946-1966. This means the use of (a) twenty-year intervals, 1946, 1966; (b) ten-year intervals, 1946, 1956, 1966; (c) five-year intervals, 1946, 1951, 1956, 1961, 1966; (d) four-year intervals, 1946, 1950, 1954, 1958, 1962, 1966; (e) two-year intervals; or (f) one-year intervals. In studying all the surveys within the data bank representing these years, we found that those surveys which were richest in attitudinal indicators of foreign policy preferences roughly formed a five-year interval pattern.

Although the pattern of surveys which are in fact available to the researcher provides a major parameter of the interval chosen for the cohort analysis, certain empirical components of the research situation are also important. The first such component involves the number of surveys, that is, the number of observation points over time, to be included in the cohort analysis. Certainly observations at two points in time do not provide a sound basis for the inference of developmental trends. The greater the number of observation points the greater confidence we can put in the observed trends. At the other extreme we can use a one-year interval and observe these one-year cohorts at each of the twenty-one years represented by the 1946-1966 data bank. This assumes, of course, that in each year there are surveys in the data collection which contain the necessary survey-items required to investigate the theoretical problems. However, the use

of such theoretically possible one-year cohorts also creates practical problems. Table 4.1 illustrated a cohort matrix based on five-year intervals; there are eleven rows in this matrix, representing the ages from twenty-one through seventy-five. A matrix based on one-year intervals would have fifty-five rows and twenty-one columns, which could precipitate problems of analysis and presentation. It is therefore desirable to choose an interval between the two extremes represented above by intervals (a) and (b), and (e) and (f).

Although the physical size of the cohort matrix may become a problem if the interval chosen is small, the choice of small intervals also creates problems of sample size. In any given national sample of approximately 1500-2000 respondents, each one-year age interval is represented by only twenty-five to thirty respondents. This small number of respondents in each cell of the cohort matrix would (1) tend to lessen confidence in the statistical trends subsequently observed, and (2) hinder the ability to employ control variables in the search for patterns of intracohort variability. Five-year age intervals, consequently, produce analytic groups of about 125-130 respondents each. These estimates of cell size will vary as the size of the age group varies in the actual population. If, for example, the older age intervals contain smaller actual populations, then their representations in sample surveys will yield fewer respondents. The use of one-year intervals in such a situation would provide even fewer sample respondents per cell than estimated above; by aggregating age intervals, then, the stability of statistical comparisons is maximized.

At this point two complementary facts direct us in deciding upon the size of the age intervals to use in a cohort analysis. Larger intervals

decrease the number of observations which can be made within the finite timespan of a given data base. Smaller intervals, on the other hand, decrease the size of each cell in the cohort matrix. These two "facts of cohort analysis" direct us to choose middle-size age intervals. In the case of the present study, based upon a twenty-year data bank, both four- and five-year intervals could be used. Each has the advantage of providing several observations, as well as providing usefully large samples of age groups. It is at this point, therefore, that other practical considerations enter the situation. Do the available surveys represent both these sets of intervals? If so, is each set of surveys equally rich in attitudinal indicators of the phenomenon under study? It is this pair of criteria which, for the present study, directed us to choose five-year intervals. The following chapter will provide a more detailed discussion of the procedures whereby our survey data bank was searched for indicators of attitudes toward foreign policy.

#### 4.2.3 Which Cohorts and Life-stages to Analyze?

After the theoretical and practical criteria for the choice of age intervals has been made, the analyst is in the position to know which cohorts he is able to investigate. In the present study, for example, we can analyze the five-year age groups from age twenty-one through age seventy-five.<sup>19</sup> The analyst must decide, however, if he wants to investigate only some of these cohorts and life-stages, and if so, which ones.

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<sup>19</sup>National sample surveys typically do not interview persons under the legal voting age of twenty-one, and usually do not "pick up" enough respondents over the age of seventy-five to allow for statistical analysis.

In a previous study which sought to demonstrate the utility of cohort analysis as applied to attitudes toward foreign policy, three specific cohorts and four life-stages were selected out of the total cohort matrix.<sup>20</sup> Referring back to Table 4.1, this means that only three of the diagonals and four of the rows were selected for analysis. Theoretical interest in a particular generational cohort, for example, can bring about such a decision.

In the case of the study cited, Bobrow and Cutler chose the "Nuclear Era" cohort, the "Great Depression" cohort, and the "World War I" cohort. Similarly, the life-stages (rows) chosen for analysis were the youngest, the oldest, and two in between. The labels chosen to characterize these particular generational cohorts were based on the observation that each of the three cohorts was approximately twenty years old at the beginning of the events included in the labels. It may be argued, however, that a cohort should be named for the event which took place when the cohort was born; for example, the above three cohorts would be those which were born at the time of the outbreak of the World War, and the beginnings of the Depression and the Nuclear Era. Someone else may argue that the cohort which is approximately twenty years old at the end of an event should bear the name of that event. Other schemes for assigning labels to particular cohorts could also be argued.

In the present study it was decided not to employ any a priori labeling of the cohorts. Similarly, it was decided not to select any particular cohort for analysis, but rather all of the cohorts were included as

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<sup>20</sup> Davis B. Bobrow and Neal E. Cutler, "Time-Oriented Explanations of National Security Beliefs: Cohort, Life-Stage and Situation," Peace Research Society (International) Papers, 8 (1968), in press.

described by Table 4.1. Although we may entertain the hypothesis that the cohort which was approximately twenty years old at the beginning of an event will be most affected by it, the verification of such a hypothesis can only result from comparisons of this cohort with other cohorts. Furthermore, to comprehend the full drama of the influence of generational factors upon differential patterns of political behavior, as much of the available data as possible should be exploited.

Similar comments apply to the choice of life-stages. Of the twelve life-stages indicated by the rows of Table 4.1, Bobrow and Cutler selected four for analysis. These four were chosen to provide information on the total span of ages represented in the data. Students of human behavior, however, possess little in the way of developmental knowledge of political attitudes. There is an abundance of research concerning the development of behavior patterns of middle- and old-aged persons. As Kuhlen has pointed out, however, we do not have an adequate body of knowledge concerning the lifelong developmental process which would supply standards of comparison between older and younger individuals.<sup>21</sup> In the present study, therefore, we have decided to analyze all the life-stages represented in our data.

A further reason for including all of the cohorts and life-stages in the analysis stems from the somewhat arbitrary use of five-year age groups. The preceding sections have described the various decision processes that brought us to the conclusion that the five-year interval should be used. Yet there is no theoretical reason for assuming that any generational experiences or life-stage influences which might be uncovered in the course of this analysis will fall neatly into five-year intervals.

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<sup>21</sup>Kuhlen, op. cit., p. 884.

The impact of any given event may, for example, affect an age interval which spans seven years. Similarly, being "middle-age" could very well influence the response distributions in two or even three of the five-year life-stages. If such phenomena exist, and there is no evidence that they do not, we can expect less than crystal clear patterns to emerge from the data. While this may be considered as a disadvantage, it may instead be viewed as conservative influences upon the analysis. That is, if meaningful patterns in attitudes toward foreign policy do in fact emerge, patterns which have clear generational or aging process interpretations, then such patterns will have emerged despite the possible attenuation of the cohort or life-stage effect due to arbitrary age intervals.

The experimentation with different age intervals is beyond the scope of the present study. However, by including all of the cohorts and life-stages available, significant generational and aging process trends in attitudes toward foreign policy can be located. By subjecting all of the available data to cohort analysis, we can be more confident of any cohort or life-stage trends which emerge. Similarly, by not restricting the analysis to a small number of selected, labeled cohorts, it is possible to identify those generational cohorts which in fact cannot be characterized in generational terms. Cohort analysis, in other words, is a technique which allows us to determine if in fact cohort trends are present. Finally, by choosing to employ all the cohort and life-stages, and contrasting the two interpretations against each other within the same data set, the ambiguity of explanations which is present in the single-sample study is eliminated.

#### 4.3 Patterns of Intra-cohort Variation: The Matter of Control Variables

Among the decisions facing the researcher who desires to employ the technique of cohort analysis is the problem of "control variables." As is the case in single-sample analyses, the task is to determine if the attitudinal patterns observed in the data are equally distributed across population strata as defined by certain background variables. In the cohort approach to generational analysis, however, the problem may be stated somewhat differently. Are there intra-cohort groups, that is, subgroups of the basic cohort structure, for which the historical or generational effects of events and socialization are different? In the discussion of the theory of generations presented in Chapter Two, we pointed out that Mannheim was one of the prime supporters of the thesis that the generational location of a man is an important key to understanding his attitudes and behavior. In another part of his essay, however, Mannheim argues that generational "location" is only the widest form of cohort identification. Should we expect, he asks, that persons born in Prussia and in China in the year 1800 possess common attitudes and outlooks?<sup>22</sup> In this manner, Mannheim introduces two concepts which serve to more clearly specify the potential impact of generational phenomena.

While generational location is the widest sort of possible identification, Mannheim expects generationally influenced behavior to emanate from the "generation as actuality," and the "generation unit."<sup>23</sup> Simply

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<sup>22</sup>Karl Mannheim, "The Problem of Generations," in Paul K. Kecskemeti (ed.), Essays on the Sociology of Knowledge by Karl Mannheim. London, Routledge and Kegan Paul, 1952, pp. 302-303.

<sup>23</sup>Ibid.

defined, the "generation as actuality" is that group of persons who share not only the same chronological location in history, but also the same general cultural context. Even within this group, however, there may be divergences of subcultural experiences which affect later behavior, so that we can further specify those individuals who actually share the same general experiences in the same general way: these individuals comprise the "generation unit." In Mannheim's terms, each successive narrowing of the generational context increases the probability of a commonality of behavior among members of the generational group. In our empirical analysis of American foreign policy opinions, we must decide if there are potential bases for designating various "actualities" and "units" which might, in turn, reveal significant patterns of intracohort variation.

The decisions faced by the cohort analyst, therefore, are to choose among various possible social indicators which might produce these patterns of variation. While a number of standard "control variables" could immediately be proposed, the longitudinal nature of cohort analysis eliminates most of the candidate variables, such as occupation, place of residence, and political party. It must be remembered that the structure of the cohort comparisons juxtaposes a number of separate samples of the same cohort population. Therefore, control variables must be chosen which are themselves longitudinal in nature. Place of residence is an example of a nonlongitudinal variable. A sample of persons living in California in 1946, and the same cohort sample of persons living in California in 1966, would not be samples of the same population unit. They would be samples of the same ecological unit, of course, but such is not the focus of the present study. If the purpose was to describe changes in the cohort

structure of California, then ecological variables could be used. But since our aim is to observe successive samples of the same population unit over time, variables must be employed which, for any given individual, do not change over time.

Two such variables are education and sex. A sample of twenty-year-old males in 1946 represents the very same population group as a sample of thirty-year-old males in 1956. While education may change during the development of any particular individual, such changes seldom come after the age of twenty-one, which is the starting point for the present analysis. Thus education, like sex, may be considered as a longitudinal variable. Other variables can also be considered longitudinal in nature, in that they do not change over time. Religion and race, for example, are often standardly used as control variables. Variables which might be especially important for a study of foreign policy attitudes include immigration and citizenship status, national origin, and previous military service. While these variables, like sex and education, could provide a justifiable basis for cohort analyses, they do not, unfortunately, appear with enough regularity in national sample surveys to be used in the present trend analysis.

The behavioral differences of which education and sex are social indicators may be significant for any study of public policy attitudes. It should be assumed that the magnitude of differences between members of the same generational location implied by the Prussia-China example do not occur in our wholly American data. The "massification" of large-scale news media at least provides a commonality in the availability of foreign policy stimuli. While these variables may yield cohort indicators of the generation as actuality, the recognition and attention

which is in fact paid to foreign policy information may not be the same for all members of a cohort. Thus, the sex and education variables are employed to determine if there are unique generational units within the general cohort pattern, which have responded to foreign policy matters differentially.

Although both sex and education are longitudinal variables, they are nonetheless measured imperfectly in most national sample attitude surveys. That is, the behavioral concepts which are implicit in these variables are only grossly accounted for by standard questionnaire items. When one considers education patterns in various forms of political behavior, a number of phenomena can be listed which have behavioral implications: formal schooling, intelligence, information level, ability to organize cognitions, facility for perceiving subtleties. These kinds of behavior patterns often correlate imperfectly with the standard interview datum of "what is the last grade of school you completed."

Even years of formal schooling is not a homogeneous variable; ideally, the investigator should know if the individual attended an urban high school which was well-financed and catered to individual differences as contrasted with a poor quality rural one-room school house. We may have cause to expect that there are educational differences among graduates of Harvard University and graduates of Bob Jones University. When studying sex differences in political behavior a number of behavioral differences may also be considered, for example, service in the armed forces, attitude toward military service, possible differences between mothers and fathers, and perhaps even interval scales measuring perceived degrees

of "male-ness" and "female-ness."<sup>24</sup> Yet in both these cases the analyst has only the standard survey research indicators of a male-female dichotomy and the last year in school achieved. While more sophisticated measures are desirable, it is at least known that significant behavioral differences have been found using these imperfect social indicators;<sup>25</sup> there is, therefore, some basis for employing them in the present study. In the analyses to be presented in following chapters, therefore, we will first trace out the cohort and life-stage patterns in foreign policy attitudes, and then determine the degree to which these patterns are to be found among the various sex and education strata within these age groups.

#### 4.4 Summary: Cohort Analysis and Political Science

##### 4.4.1 Permutations of the Method of Cohort Analysis

The preceding paragraphs described the various decisions that were made in applying the method of cohort analysis to the study of attitudes toward foreign policy. Since the decision to use five-year intervals both within each survey and between surveys was dictated by the demands of this particular study, alternative uses of cohort analysis should be discussed.

The application of cohort analysis as developed here was formulated specifically to allow simultaneous investigation of the effects of generational influences and the aging process. While this research focuses

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<sup>24</sup>Verling C. Troidahl and Roy C. Carter, "On the Measurement of 'Sex,'" American Behavioral Scientist, 8 (1965), pp. 13-14.

<sup>25</sup>See, for example: Philip E. Converse, "The Nature of Belief Systems in Mass Publics," in David Apter (ed.), Ideology and Discontent. New York, Free Press, 1964, pp. 206-261.

upon the comparison of these two explanations of the age variable, other research needs can also be satisfied by cohort analysis. Consequently, permutations of the basic technique of cohort analysis are possible, and the requirement of equal intervals between and within surveys may be relaxed. In other words, the criterion of equal intervals within and between surveys is imposed so as to maintain comparability of age groups when comparing cohort and life-stage effects. If the analyst is not attempting to make such comparisons, equal intervals may not be necessary. The political historian, for example, may be interested in the attitudes of one particular generational cohort as they develop over time. If he desires to employ a cohort analysis of survey data, then he may not have to worry about having measurements on this cohort at equally-appearing intervals. If he is interested in one particular cohort and one particular kind of attitude, then he may utilize every survey available to him in which indicators of this attitude appear.

Another research example which more directly eliminates the requirement of equal intervals concerns the problem of defining a generation. As was pointed out earlier, Berger has observed that in recent years the pace of technological and social change has increased so much that "a generation" should be differently defined now than it has been in the past. Cohort analysis may be used to discover what intervals most accurately define a distinct generational group. Such a research design might focus upon experimentation with varying cohort intervals applied to the same data set so as to discover that interval which produces the most homogeneous set of response distributions. Again, for this kind of research, the need for equal intervals between surveys may not be crucial.

Cohort analysis may also be profitably employed to construct multi-level investigations of political processes. In a recent study of European integration, for example, Deutsch argued that political scientists should attempt to validate their empirical findings by employing many "streams of evidence." In his study, elite interview data were compared with mass public opinion data, a content analysis of newspapers, aggregate data analyses, and investigation of proposed legal agreements.<sup>26</sup> All of these sources of evidence were directed toward the validation of trends in sentiments and behaviors concerning European integration. In this same vein, we could suggest that cross-sectional elite data be analyzed against the background of a cohort analysis of public opinion records. It could be determined whether or not, for example, present-day elites are responding more to the current environment, or more to the climate of opinion which existed when these elites were themselves younger. More generally, cohort analysis may be used to study political career patterns, and the temporal relationships between leadership and the public; such analyses should be of interest to both historians and political scientists.

These various permutations of the method of cohort analysis all focus on individual human behavior. Finally, another example of the potential utility of the cohort approach is the cohort analysis of political collectivities. Certainly there are political collectivities of varying kinds which can be thought of in terms of developmental or life processes. Among such entities may be included legislatures, governmental departments and ministries, ad hoc committees, political parties, interest groups,

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<sup>26</sup>Karl W. Deutsch, Lewis J. Edinger, Roy C. Macridis, and Richard L. Merritt, France, Germany and the Western Alliance. New York, Scribner's, 1967, p. 215 ff.

revolutionary movements, extra-party political groups, intergovernmental agencies, domestic and foreign spending agencies, international organizations, and even national political systems. To some extent, developmental differences across such political institutions merely reflect the generational differences between the individuals recruited to the institution at different points in its development. Yet there may also be a significant proportion of the variance in institutional behavior which could be explained in terms of an institutional life cycle. Just as historic events such as the Depression have affected the generational structure of patterns of individual political behavior, so events such as the advent of television, the granting of mass suffrage, and the development of program budgeting have affected the behavior of political organizations and institutions. Within a given class of institutions one may ask, using a comparative framework, if more variance is explained by national differences, by age of the institution, or by the environment which existed when the institution was born. While many of these kinds of questions appear to have "obvious" answers, the scientific validation of such common sense knowledge remains an important task, and it is not unusual to find common sense in error. Cohort analysis of political institutions, therefore, can become a valuable tool for the comparative study of political institutions.

#### 4.4.2 Life Processes and Political Processes

Although the present study focuses upon attitudes toward foreign policy, in this chapter, cohort analysis is presented as a generalized technique for the study of political behavior. Two recent developments within political science point to the potential which cohort analysis

possesses for the study of processes already of interest to students of politics. The first is the rebirth of interest in the study of political socialization. Indicative of the growth of interest and research in this area are two recent omnibus review articles: Dawson's in the first Political Science Annual and Greenstein's in the newest edition of the Encyclopedia of the Social Sciences.<sup>27</sup> Students of political socialization are attempting to trace the development of politically relevant attitudes and beliefs in the individual as far back as early childhood experiences. Although many of these studies in fact locate significant politicization of the child, it is nonetheless recognized that the process of socialization is a continuous one. It is only an accident of the history of political science that the term "political development" connotes national political units; the term just as easily denotes what is called political socialization. In other words, political socialization, as currently investigated, is located in the childhood stages of political development; yet the study of such development qua development in later life-stages should not be ignored. Certainly the results of cohort analysis of political beliefs are vital to the study of this political development process.

The second trend within political science which is relevant here is the growing interest in the establishment of data archives. The Inter-university Consortium for Political Research at Michigan, the Roper Public Opinion Research Center at Williams College, the International and Comparative Data Library at Berkeley, and the Louis Harris

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<sup>27</sup>Richard E. Dawson, "Political Socialization," in James A. Robinson (ed.), Political Science Annual, Volume 1. New York, Bobbs-Merrill, 1966, pp. 1-84; and Fred I. Greenstein, "Political Socialization," in International Encyclopedia of the Social Sciences. New York, The Free Press, 1968.

Political Data Center at North Carolina all point to this growing interest.<sup>28</sup> Housed in these data archives is the facility for carrying out long-term studies of political development, as this term was used in the previous paragraph. The estimation of political trends, especially those which are based on aggregations of individual opinions, can now be more accurately accomplished. Certainly the study of the relationship of life processes and political processes is an important obligation of the political scientist. Yet the psychology of individual development is not a large enough basis for the explanation of political trends; the impact of social and political events must also be empirically investigated. "As matters stand political scientists have only partially met the challenge of applying their tools of description and analysis to the flow and spread of events in the political process."<sup>29</sup> Lasswell made this statement in relation to his call for the establishment of a "basic data survey," a data gathering enterprise which would allow future political scientists to better estimate and analyze long-term political trends. Yet a sample of such a longitudinal data collection already exists in the form of the archives mentioned above. What is needed now is an effort to analyze existing longitudinal data sets; the experience of these efforts will allow us to improve methods of collecting data for future analysis. In this context, too, applications of the cohort technique will demonstrate the potentialities and limitations of the study of individual political development.

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<sup>28</sup>Ralph L. Bisco, "Social Science Data Archives: A Review of Developments," American Political Science Review, 60 (1966), pp. 93-109.

<sup>29</sup>Harold D. Lasswell, The Future of Political Science. New York, Atherton Press, 1963, p. 44.

The application of cohort analysis to large bodies of public opinion data can have certain educational payoffs as well as substantive payoffs. A problem which the attitude researcher often confronts is that of how to design a particular questionnaire or a given question. Changes in question wording may severely alter the responses to the item. One answer to this problem, of course, is to pretest the questionnaire. The pretesting experience is costly, and yields only a limited amount of experience, for only a small number of permutations of the question wording can be included. The strategically planned interrogation of a large data archive may provide a significantly larger amount of experience concerning the effects of differently worded indicators of political attitudes. When cohort analysis is introduced to the situation, the analyst can determine how several different age groups, in a variety of historical circumstances, responded to various questions. The interactive or differential response to a given political question by different age groups should aid the analyst in constructing a better questionnaire of his own. As Evan observed in commenting upon the advantages of the cohort technique, "as a procedure for secondary analysis, it will probably stimulate interest in new types of primary analysis."<sup>30</sup>

The experience of having applied cohort analysis to large archives of opinion data, therefore, can stimulate the analyst to formulate new hypotheses, better question wording, and more expansive research designs. In conclusion, therefore, the combination of three developments--the study of political socialization, data archives, and cohort analysis--promises to provide political scientists with (1) knowledge of the relationship

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<sup>30</sup>Evan, op. cit., p. 72.

between life processes and political processes, as well as (2) knowledge and experience concerning how to better plan future investigations of this important relationship.

## CHAPTER FIVE

### THE OPERATIONALIZATION OF FOREIGN POLICY ATTITUDES

#### 5.1 Introduction: The Secondary Analysis of Survey Data

Chapter Three specified the theoretical bases for our interest in analyzing American attitudes toward foreign policy within a longitudinal perspective. That chapter also indicated some of the major categories of foreign policy attitudes which can be and have been studied. The present chapter will describe the procedures and decisions through which some of these theoretical notions are translated into research operations. This study differs from most studies of foreign policy attitudes in that a longitudinally constructed secondary analysis of "old" survey data is employed. In cross-sectional studies the operational definition of that which constitutes a "foreign policy attitude" is relatively straightforward. The analyst consults the literature, adds his own original contribution, and constructs a scale to measure the attitude(s). Pretesting of the questionnaire helps in deciding upon the best set of items to use in measuring the attitude.<sup>1</sup> When the data are gathered, the analyst can perform a number of alternative statistical tests to determine the extent to which his operational procedures have yielded valid and reliable measurements.

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<sup>1</sup>A concise presentation of the technology of single-sample surveys is given in: Charles H. Backstrom and Gerald D. Hursh, Survey Research. Evanston, Northwestern University Press, 1963.

Such is not the case when methods of secondary analysis are employed. In using other people's questionnaires one's efforts are limited to the questions which they have asked. The strategy which best parallels the pretesting of alternative items is the judicious selection of alternative items from a large pool of old surveys. Thus, the greater the number of surveys originally available for scrutiny, the better the probabilities that a valid and comprehensive set or sets of survey indicators of foreign policy attitudes can be constructed. This chapter, therefore, describes in detail the sequence of decisions and operations which brought us from the vast archival holdings of survey data originally at our disposal, to the discrete set of items which provides the data base for the present analysis.

After the operational procedures are described, the attitudes which have finally been chosen, operationalized as "question-sets," are presented and their content outlined. Finally, the policy attitude paradigm presented in Chapter Three is used in order to locate the question-sets, and therefore this study, within the larger domain of research in this problem-area. Thus, other analysts and readers may turn to Figure 5.2 and determine if this study contains information which is relevant to their interests.

## 5.2 The Oak Ridge National Laboratory Survey Data Bank

Housed within a multi-disciplinary research group named the Civil Defense Research Project, which is part of the Director's Division of the Oak Ridge National Laboratory, is a longitudinally constructed survey data bank. This data bank contains 123 national sample attitude surveys representing the following survey organizations: American Institute of

Public Opinion (Gallup), National Opinion Research Center (NORC), University of Michigan Survey Research Center, and Elmo Roper Associates. These surveys cover the years 1946-1966.

It is important to note the definitional differences between what is referred to as a data "bank," as contrasted with a data "base" and a data "archive." An archive refers to a generalized collection of existing research materials, and can be based on such organization principles as the ecological location covered by the data (e.g., an archive of European data or African data), or the general source of the data (e.g., United Nations statistics or Gallup interview results). In contrast to this, we see a data bank as inherently "problem oriented"; that is, as a specially collected set of data which has been amassed in order to study a particular research problem or family of research problems. The Oak Ridge data bank has been created to study American national attitudes toward problems of civil defense, continental defense systems, and foreign policy. The surveys represented in the bank have been carefully selected from a larger survey data archive, with each survey in that archive studied to determine its relevance to the research problem. While an archive is thus "larger" than a bank, a data base is smaller. Given a comprehensive problem-oriented data bank, any particular research undertaking will be based on all or part of it; thus any given study is based upon a specifiable "data base." Using these terms, the focus of the present chapter is to specify the principles, rules, and criteria by which the particular data base employed in the present study has been constructed.

The surveys in the Oak Ridge data bank constitute a problem-oriented selective subset of the vast survey data holdings of the Roper Public

Opinion Research Center located at Williams College.<sup>2</sup> Although almost all national sample surveys of the general public opinion poll type contain some questions which are relevant to foreign policy, only those 119 surveys which were "richest" in such items were selected from the Roper Center for inclusion in the Oak Ridge data bank. This collection, leased from the Roper Center, covered the years 1946-1962. In addition to these, four national sample surveys have been included in the data bank which were specially commissioned by the Office of Civil Defense, and which focus on public response to civil defense, foreign policy, and various forms of active and passive continental defense. These four surveys, conducted by NORC, cover the years 1963-1966. The data bank is, therefore, a specialized collection of attitude surveys.<sup>3</sup>

It is important to note that the selection of surveys into the data bank was done on the basis of a number of conceptual principles. As indicated above, a primary principle for inclusion concerned the relative quantity of foreign policy indicators which appeared in the survey. In addition to such quantitative criteria, however, certain theoretically guided qualitative criteria were also applied to the holdings of the Roper Center. For example, the allocation of foreign policy objects into such categories as actors, processes, and events, as has been demonstrated in Chapter Three, was used as an evaluative measure in deciding whether or not a particular survey was rich in foreign policy

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<sup>2</sup>Philip K. Hastings, "The Roper Center: An International Archive of Sample Survey Data," Public Opinion Quarterly, 27 (1963), pp. 590-598.

<sup>3</sup>We would like to thank Dr. Philip Hastings of the Roper Center and Mrs. Dorothy Rosenberg of the Research Office of Sociology at the University of Pittsburgh (which administrated the Office of Civil Defense surveys) for making these data available to us.

indicators. Another qualitative criterion focused upon the potential utility of a survey in yielding information about public attitudes toward defense policy which would be relevant to policy-makers. In a separate paper, Davis Bobrow, who participated in the selection of the surveys and the creation of the data bank, has outlined the theoretical linkages between survey research, public policy attitudes, and policy-relevant information. In turn, these theoretical linkages formed guidelines for the selection of surveys for the Oak Ridge data bank.<sup>4</sup>

The overall task of constructing and exploiting a data bank does not end with the mere physical collection of a large number of surveys. In the case of the Oak Ridge project we can point to three large-scale efforts which have sought to maximize the potential utility of the data bank. The purpose of briefly describing these projects at the present point in this discussion is to illustrate that the engineering of the entire Oak Ridge social science enterprise has been carefully planned and executed at each stage.

Recognizing that a major source of variation in attitudes over time is the flow of policy-relevant events, Nordheim and Wilcox compiled a chronology of such events for the period 1945-1964.<sup>5</sup> Taking the events listed in each successive volume of the World Almanac and Book of Facts, and checking them against relevant editions of The New York Times, these

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<sup>4</sup>Davis B. Bobrow, "International Interactions, Surveys, and Computers," paper presented at the Institute on Computers and the Policy-Making Community, Lawrence Radiation Laboratory, Livermore, California, 1966.

<sup>5</sup>Erik V. Nordheim and Pamela B. Wilcox, Major Events of the Nuclear Age: A Chronology to Assist in the Analysis of American Public Opinion. Oak Ridge National Laboratory Unclassified Document No. ORNL-TM-1830, 1967.

writers formalized a set of concepts into which the many events could be coded, e.g., technological events, military events, diplomatic events, and political events. Each of the major event categories were then refined into conceptual subsets representing various kinds of actors and interactions. Recognizing that a mere chronological listing of the events would be of limited utility, the entire file of events was punched on to IBM cards in order to make it computer-readable. One product of these efforts is a key-word index of all the approximately 5500 separately entered events. Both the published chronology and the computer tapes have been made available to the scholarly community at large.<sup>6</sup>

The study of foreign policy attitudes should not only be carried out within the context of the changing profile of world events, but also within the context of other research in the area. Different scholars will, of course, bring different analytic foci to their studies; yet, since these are all studies of foreign policy attitudes, they have a general commonality in terms of attitude theory. Recognizing this, another product of the Oak Ridge project is a propositional inventory of the scholarly periodical literature concerning foreign affairs and national security attitudes for the period 1960-1966.<sup>7</sup> The author, a social psychologist, reviewed fourteen academic journals in the fields of political science,

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<sup>6</sup>For information concerning the acquisition of the events chronology, contact Eila S. Cutler, Mathematics Division, Oak Ridge National Laboratory. Additional descriptive information concerning this document is given in: Eila S. Cutler, "Events Chronology," Council of Social Science Data Archives News and Notes, November, 1967, pp. 2-4.

<sup>7</sup>Thomas H. Atkinson, A Propositional Inventory of the Empirical Work Involving Foreign Affairs and National Security Attitudes, 1960-1966: A Non-Evaluative Review. Oak Ridge National Laboratory Unclassified Document No. ORNL-TM-2028, 1967.

sociology, psychology, and social psychology, as well as reviewing Psychological Abstracts and Sociological Abstracts. Forty-seven social-psychological categories were established reflecting those theoretical constructs which would be most useful in a multi-disciplinary study of foreign policy attitudes. Over 160 articles were reviewed and propositionalized according to the conceptual categories.

A final indicator of the overall comprehensiveness of the Oak Ridge research enterprise is the effort which has been made to create a computer-based data management system to facilitate analysis of the surveys. Merely possessing a large number of boxes of IBM cards does not insure that large-scale analysis will be feasible. To facilitate the ability of the data bank user, a number of systematic operations have been developed. First, the data had to be edited so that the various formats employed by the different survey organizations would not hinder analysis on modern computers. That is, virtually every one of the over 400,000 IBM cards had to be recast into comparable physical formats so that any subset of them could be used in comparative analysis. Second, the questionnaires were committed to a machine-readable form, that is, punched on to cards and put on to magnetic tapes. Finally, a key-word index was compiled based upon the wording of the questions and the response categories in the questionnaires. In this way, a user interested in a particular subject, "War" or "Communism" for example, could consult the computer-generated index to determine if these key-words appeared in any national surveys during the period 1946-1966, with what frequency the questions containing these words appeared, and in what surveys these questions could be found.<sup>8</sup>

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<sup>8</sup> Pamela B. Wilcox, "Survey Data Management: System SESAR," in Oak Ridge National Laboratory, Annual Progress Report, Civil Defense

The purpose of this brief description of the social science research enterprise supported by the Oak Ridge National Laboratory has been to (1) illustrate the environment in which the present study was designed and executed, and to (2) demonstrate that the commitment of the Laboratory to the attitude research project is not merely a summary one, but an extensive commitment to both social science and to public policy. This discussion began with a description of the surveys which were selected for inclusion in the data bank. To be sure, these surveys are not a random sample of all attitude surveys conducted in the 1946-1966 period, but rather a purposive sampling based on the research problems in which the project is interested. The selection of the surveys, in other words, was based upon the same professional care and commitment which characterizes the other components of the research project which have been described.

### 5.3 The Categorization of Foreign Policy Attitudes

As traditionally conceived, studies of attitudes are based upon samples of people; yet, any given piece of research represents other kinds of samples as well. The present study is concerned not only with a sampling of the American population, but a sampling of time periods, a sampling of surveys within those time periods, and a sampling of particular items or questions within those surveys. Each sample, of course, should be selected from a population whose parameters are defined. The previous section described the first stage in this sequence of sampling

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Research Project, March 1966-March 1967. Unclassified Document Number ORNL-4184, Part I, 1967, pp. 74-89. See, also: Allen R. Wilcox, Davis B. Bobrow, and Douglas P. Bwy, "System SESAR: Automating an Intermediate Stage of Survey Research," American Behavioral Scientist, 10 (1967), pp. 8-11.

procedures, that of selecting a problem-oriented set of surveys from a general survey data archive. The burden of this and the next section is to describe the sampling procedures used in selecting surveys and items from the data bank for use in this study.

Initially, all of the data bank's 123 surveys were available for use. As described in Chapter Four, however, the nature of longitudinal cohort analysis demands that a number of attitudes be represented across a time span at regular intervals. Therefore, the first step in this sampling of surveys and items is to go through all the surveys and establish a number of conceptually meaningful categories into which the foreign policy attitude items could be classified. These operations will be described in this section. Having done this, we are then in a position to decide which attitude categories could be used in the longitudinal analysis. These latter decisions will be described in Section 5.4.

Although all surveys in the data bank were theoretically available for use in the analysis, the logic of the cohort technique demands that the actual age of the respondent is known so that the various population samples can be sorted into the appropriate age groups. Unfortunately, only one of the survey organizations, the American Institute of Public Opinion (Gallup), was consistent in punching the actual age of the respondent on the IBM cards. All of the other survey organizations used some arbitrary coding of age, e.g., trichotomizing the age distribution, and punching only the appropriate one-, two-, or three-punch on the IBM cards. Since such age data cannot be used in cohort analysis, attention becomes focused upon those surveys with actual age punched. Therefore, the first principle in sampling surveys from the data bank, that based

upon the requirement of the age variable, resulted in the use of all thirty-eight Gallup as well as seven NORC surveys.<sup>9</sup> Although this restricted most of the analysis to those questions which the Gallup organization included in their studies, there is the compensating advantage that the data emanate basically from a single survey organization; thus there is no problem of adjusting for major differences in sampling philosophies and technologies. The probability that questions will be repeated from one survey to the next is also increased, which is a definite advantage when one is attempting to trace attitude trends across a period of time.

The question classification procedures were begun with a review of a large amount of the scholarly literature in the area of attitudes toward foreign policy. This included both theoretical discussions and empirical research, for we were interested in establishing categories which would relate this study to the interests of a community of scholars. Some of the kinds of foreign policy attitudes which have been researched focus on easily identifiable objects, e.g., Russia, disarmament, the United Nations. We were able, however, to locate more general kinds of categories as well, e.g., isolationism, international threat, time-orientations. In the context of this body of research, every one of the relevant questionnaires in the period 1946-1966 was systematically read. Then for each

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<sup>9</sup>Unfortunately the National Opinion Research Center has not included the actual age of the respondent in their surveys. We found three exceptions, however; one survey each in the years 1945, 1946, 1947. The four NORC surveys which were specially commissioned by the Office of Civil Defense, and designed and administered under contract to the University of Pittsburgh, also included the required age data. These seven surveys, therefore, became part of the data base from which our question categories were designed.

of these surveys, every single question which could be considered as an indicator of a foreign policy attitude was recorded on large sheets of paper. The questions were recorded within categories based upon their manifest content, as well as upon classification schemes found in the literature.

In this manner each of the forty-five "age-punched" surveys in the data bank was carefully surveyed. The result of this first effort was a group of approximately twenty question categories, with a listing within each category of the specific wording of the question as it appeared in each survey. Included in the content categories were attitudes concerning such objects as China, Russia, nuclear weapons, atomic fallout, civil defense, foreign aid, American troops in Europe and Asia, fear of war, expectation of war, desire to employ war as an instrument of national policy, approval of government foreign policy. In addition to such structural or content categories, a number of conceptual categories were constructed, such as hard-soft posture toward foreign policy, cold war military strategy, comparison of relative strengths of the United States and its enemies, involvement-noninvolvement.

Although the question classifying operations should not be considered content analysis in the strict sense of the term, we were analyzing the content of all the surveys, and coding the questions into distinct categories. As already mentioned, the various interests of the members of the Civil Defense Research Project include political science, psychology, social psychology, sociology, and anthropology. The lists containing the question classifications were submitted to these colleagues. Numerous discussions were held in which our own decisions were scrutinized. In

some instances, a question was transferred into another category; in other cases, the underlying attitude represented by a list of questions was discussed and renamed. Thus, although no statistical measures of inter-judge agreement were calculated, the resultant list of categories and questions represented the collective judgment of a number of scholars from different social science disciplines, all of whom were actually undertaking attitude research in the area of foreign and defense policy.

The next step in the classification procedure was to take the knowledge gained from the initial round of classifying and discussions, put the first list aside, and start again from the beginning. Thus, we again went through each of the surveys, carefully transcribing each question which appeared as an indicator of foreign policy attitudes into its appropriate category. When this operation was completed, the two lists were compared. A small number of new questions were added to the pool of items located in the first search. Satisfied that in fact all relevant items had been located, a second round of discussions was held with colleagues in order to again determine the most appropriate categories and the question-content of each category. In each instance, an attempt was made to approximate a verbal version of attitude scaling or cluster analysis. That is, each item on the list was scrutinized to determine not only if it appeared to tap the basic underlying attitude, but also to determine if the item measured the attitude on the same dimension as the other items. For example, it was decided that although a number of items all measured public perceptions of international crises, three separate dimensions were present: awareness of crises, belief that the crisis would escalate into a military confrontation, and desired modes

of handling the crisis. In situations such as this, the categories were "decomposed" into more homogeneous attitudinal subcategories.

Two additional steps were taken before it was felt that the question location and classification procedures were satisfactory. As mentioned in Section 5.2, a key-word index had been prepared which indexed all questions and response categories in the data bank. Based upon the words contained in our categories, the index was searched to see if any questionnaire item which should have been included had been overlooked. The second additional operation was to consult another question-classification scheme that had been prepared by a social psychologist working in the project. This document was based specifically upon psychological concepts which would be of utility to any research relating foreign policy attitudes to personality traits.<sup>10</sup> Both of these operations revealed that no foreign policy items had been overlooked. We conclude on the basis of these various operations, therefore, that we possess a reliable and valid enumeration and classification of all foreign policy attitude items within the data bank. The reliability of these efforts is indicated by the repetition of the operations as well as the cross-checking of our decisions with other sources; the validity of the product is indicated by the inter-judge discussion, disagreement, and agreement which entered into the various classification decisions.

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<sup>10</sup>Thomas H. Atkinson, "A Classification of National Sample Survey Questions by Key Concepts," Oak Ridge National Laboratory, Civil Defense Research Project, 1967.

#### 5.4 Selection of Items for Analysis: From Data Bank to Data Base

The operations discussed in the previous sections yield a refined data bank of surveys and items which could potentially be employed in the present analysis. This section, therefore, will describe the remaining criteria by which we selected out a unique data base from which the cohort analyses will be constructed.

In deciding upon which time-cuts to employ in the analysis, we automatically focus upon which surveys and therefore which items can be used in the analysis. That is, if the series of chosen time-cuts does not include the year 1954, then none of the 1954 surveys or items can be used in the analysis. Looking at this from the reverse point of view, it is possible to decide upon which time-cuts to employ after looking at which years are represented by the most plentiful supply of surveys and items. When Chapter Four described the logic and mechanics of the cohort analysis technique, it was indicated that a number of decisions had to be made concerning the age intervals and time-cuts to be used in any given cohort analysis. Certain of these decisions, to reiterate, were made before the data bank was searched for relevant foreign policy items. Thus, the following was decided: (1) the analysis should span as much of the twenty-year period within the data bank as possible, that is, both 1946 and 1966 should be used as time-cuts; (2) small intervals between and within surveys would yield very small age group subsamples and would therefore increase the unreliability of statistical comparisons; (3) large intervals would increase the sizes of the age group subsamples, but would limit the number of time-cuts or trend observations which could be made; and therefore (4) middle-range intervals should be used.

Two sequences of middle-range intervals are possible: four-year intervals (1946, 1950, 1954, 1958, 1962, 1966) and five-year intervals (1946, 1951, 1956, 1961, 1966). Since both of these sequences yield approximately the same number of observations and the same size age-stratified subsamples, the choice between the two should be made on empirical grounds. Thus, it is at this point, and for the first time, that we look at the data in order to make one of the important decisions; that is, the decisions up to this point have all been made on theoretical or logical grounds rather than on the basis of beforehand knowledge of the attitudinal data. The figures below indicate the number of age-punched surveys available for each of the two time-sequences.

<u>Five-year Interval</u>	<u>Four-year Interval</u>
1946 - 5	1946 - 5
1951 - 5	1950 - 3
1956 - 2	1954 - 2
1961 - 7	1958 - 1
1966 - 1	1962 - 2
	1966 - 1
20	14

As these frequencies of surveys clearly indicate, the five-year interval is more densely populated with relevant surveys. The five-year interval has thus been chosen as the sequence for the cohort analyses, as this sequence yields the greater latitude in choosing among particular questionnaire items. By this operation, the data bank has thus been narrowed one step further: the pool of items from which the data base for

the present study will be created is defined by these five survey years, and twenty surveys.

Once the decision was made to employ the five-year interval and the surveys covering these years, we returned to the question-classification information. At this point we had to decide which sets of questions could be used for subsequent analysis. A "set" of questions are those questionnaire items which, in our judgment, measure a given foreign policy attitude. Since not every attitude was represented by a question in every year, the decision to use the five-year intervals circumscribed the attitudinal question-sets which were capable of being analyzed. For example, questions pertaining to Communist China occurred only in the following years: 1950, 1951, 1953, 1955, and 1962. Since this attitude or question-set appeared in only one of the five time-cuts, it could not be employed in the analysis. In this way, we were forced to eliminate many of the foreign policy items which had been previously categorized. The result of the efforts in this area was a pool of twelve separate question-sets; the nature and content of these sets will be described in the following section.

At this point, our attention has focused on the particular years, surveys, and question-sets which can be cohort analyzed in this study. There is only one final kind of decision which has to be made in order to decide upon which particular questionnaire items are to be analyzed. This decision pertains to those situations in which more than one item exists in a given year for the same question set. For example, there are seven 1961 surveys most of which contained an identical set of questions about the Berlin crisis of that year. One of the attitudes which

will be analyzed concerns the belief that crises will escalate into a war. During the Berlin crisis, a number of 1961 surveys included the question "Do you think the Berlin crisis will end in war?" Since each instance of this item satisfied the same attitude or question-set for the same year, a set of criteria had to be devised by which we could objectively and systematically choose which of the alternatives to use in the analysis.

It should be pointed out that a decision did not have to be made often; that is, in most cases, only one candidate item existed for a given year. There was, for example, only a single crisis-escalation item in all of the 1946 surveys, thus, there was no need for a decision. It should be noted that these criteria were formulated, discussed, and reformulated without prior knowledge of the age-stratified distributions of the responses. In the list which follows, the criteria are presented in their rank order; that is, a choice was made among candidate items on the first criterion, and only if it did not allow for differentiation among preferable items were successive criteria applied.

1. If the wording of one of the candidate questions was more similar to the wording of the other questions in the set at the other time-cuts, it was selected.
2. If, by looking at the univariate response distributions it was determined that one of the candidate questions had more variance in the response distribution, it was selected.
3. If in a series of three or more candidate questions there was an equal amount of univariate variation but differences in the pattern of variation, the question most representative of the series was selected.
4. If one of the candidate items appeared in a survey from which we had used other questions in different question-sets, it was selected.
5. If one of the candidate questions appeared on a survey with a greater total number of respondents than the other surveys, it was selected.

The first criterion allowed us to maximize the degree to which the attitudes analyzed at successive points in time are measured by the same survey question. The second criterion allowed us to eliminate those candidate items, which, for some reason, failed to elicit variation in response, for example, everyone in the sample answered in the same way. The third criterion was used mainly for choosing items from that series of seven surveys conducted during the 1961 Berlin crisis. Over the course of the seven surveys, there were relatively slight fluctuations in foreign policy attitudes from the beginning of the crisis, through increased publicity, the peak of the crisis, and another fluctuation after the crisis appeared to be over. The 1961 items were chosen on the basis of their representativeness of the entire period. Of course, from the point of view of individual differences, many of these short-term fluctuations can provide valuable information concerning the psychology of attitudes toward foreign policy, with particular emphasis on the sensitivity of public attitudes to events and crises. Such a research thrust is, unfortunately, beyond the scope of the present study. Another study emanating from the Oak Ridge data bank, however, is being carried out which does focus on these Berlin surveys from a psychological perspective.<sup>11</sup> The fourth criterion directed the use of several items from the same survey if possible. Such a situation is desirable from the point of view of further analysis of these same data. When a number of different foreign policy attitudes are contained on the same survey, it is possible to

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<sup>11</sup>Thomas H. Atkinson, "International Crisis and Attitude Change: An Analysis of the Effects of International Events on Public Opinion," unpublished Ph.D. Dissertation, Department of Psychology, University of Colorado, forthcoming, 1968.

directly measure the interrelationships among the attitudes, and fit the results of these measurements into the cohort matrix. The fifth and final criterion directed us to choose the item from the survey that had the largest number of respondents so as to increase our facility to employ control variables.

### 5.5 Description of the Data Base for this Study

After considering all the various criteria for choosing the appropriate time-cuts, surveys, question-sets, and survey items, we arrived at a series of twelve attitudes or question-sets which provide the data base to be cohort analyzed in subsequent chapters. Our initial strategy was to include only those question-sets which appeared in each of the five time-cuts which had been decided upon. After reading, sifting, and categorizing all the questions in the Oak Ridge data bank, there are still some missing data points. Figure 5.1 lists the twelve sets and indicates the time-cuts for which there are data as well as those time-cuts for which the appropriate survey item could not be located. The attitudes which are included for analysis are those for which we possess at least three measurements. Figure 5.1 does not represent a sample of possible question-sets, but represents all those attitudes, which meet the various criteria.

FIGURE 5.1

FOREIGN POLICY ATTITUDE QUESTION-SETS<sup>a</sup>

Question-Set	1946	1951	1956	1961	1966
1. <u>SALIENCE</u> <sup>b</sup>	X	X	*	X	X
2. <u>CRISIS AWARENESS</u>	X	*	*	X	X
3. EXPECTATION OF <u>CRISIS ESCALATION</u>	X	X	*	X	X
4. <u>EXPECTATION OF WAR</u>	X	X	X	X	X
5. <u>NEGATIVE ECONOMIC</u> <sup>c</sup> <u>EXPECTATIONS</u>	X	X	X	X	*
6. EXPECTED <u>LOCAL NUCLEAR DANGER</u>	X	X	X	X	X
7. <u>NEGATIVE IMAGE OF THE SOVIET UNION</u>	X	X	X	X	X
8. PERCEIVED <u>SOVIET SUPERIORITY</u> or PERCEPTION OF <u>EAST-WEST BALANCE</u>	*	X	X	X	X
9. <u>MILITARY CAPABILITY</u>	X	X	*	X	X
10. <u>ADVOCACY OF WAR</u>	X	X	*	X	*
11. <u>MILITARY EXTENSION</u>	X	X	*	X	*
12. <u>NON-MILITARY EXTENSION</u>	X	X	X	X	X

<sup>a</sup>An "X" indicates presence of data; an "\*" indicates absence of data.

<sup>b</sup>Underlined portions of each question-set title define the abbreviation used in later tables; for example, "LOC NUC" identifies the sixth question-set, "SOV SUP" identifies the eighth question-set, etc.

<sup>c</sup>This set, of course, is not a foreign policy attitude; the reasons for its inclusion in this study are explained in the text.

### 5.5.1 Content of the Question-Sets

The complete text of each question-set which is part of our data base is given in Appendix A; this section will briefly characterize and give examples of items in each question-set.<sup>12</sup>

1. Saliency: These questions measure the relative importance and attention the individual gives to matters of foreign policy. While it may be true that for some individuals nothing connected with politics and government is salient in an absolute sense, the relative quality of foreign policy saliency is given by such questions as "Which political issue interests you most?" or "What do you think is the most important issue facing the country today?" In obtaining this measure of saliency, any response to the above questions was included which concerned foreign policy, peace, war, Soviet threat, etc.

2. Crisis Awareness: In each of the time-cuts for which this attitude is measured, a significant foreign policy crisis was either taking place or building up: Palestine, Berlin, and Vietnam. The specific items simply asked if the respondent had read about the crisis or had talked about it with anyone.

3. Crisis Escalation: In four of the five time-cuts, one or more surveys included questions measuring the individual's expectation concerning the outcome of a particular foreign policy crisis. Those responses were selected for analysis which indicated a belief that the

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<sup>12</sup>The basic or generic hypothesis of this study, of course, is that significant age trends will be associated with these question-sets. However, in Chapters Seven and Eight we will present a number of specific hypotheses, derived from the relevant research literature, which relate the attitudes represented by the question-sets to the age variable.

crisis would escalate into war, or increased war; for example, "Do you think the Arabs will go to war to prevent the Jews from making Palestine a Jewish nation?" and "What do you think is the most likely ending of the current Vietnam situation?"

4. Expectation of War: While the above question-set concerns the expectation that war will start or escalate in particular crisis situations, this set of items asks the respondent for his general expectations that the United States will be involved in a major war in the future; for example, "Do you think the United States will be in another world war within the next five years?" ". . . in the next twenty-five years?" ". . . within your lifetime?" This set poses somewhat of a problem since the time period indicated in the question varies; similarly the international political climate in which the question was asked varies. The following chapter will describe the statistical transformations by which the cohort distributions to these items can be empirically compared.

5. Negative Economic Expectations: Although this set does not describe a foreign policy attitude, it is included here for comparative purposes. Sheatsley has reported that certain individuals or groups might be characterized generally as possessing negative expectations, whether the domain is personal, economic, or foreign.<sup>13</sup> This set of items is included in order to shed light on this kind of hypothesis. The items measure such things as the individual's belief that "a serious business depression will come to the United States within the next ten years."

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<sup>13</sup>Paul B. Sheatsley, "Expectation of War and Depression," Public Opinion Quarterly, 13 (1949), pp. 685-686.

6. Expected Local Nuclear Danger: It may be hypothesized that an individual's general fear and expectation of war is based at least in part on his belief that a war will particularly affect him. A number of items were found in which the individual was asked if he thought that the area in which he lived would be attacked by nuclear weapons in case of a war in which the United States was involved.

7. Negative Image of the Soviet Union: Although there is current debate on this topic, the acknowledged cold war enemy of the United States has been the Soviet Union. This question-set attempts to measure the individual's image of the Soviet Union in terms of the war-threat issue; for example, "Do you think the government of Russia wants war with the United States at this time?"

8. Perceived Soviet Superiority: The issue of "who is winning the Cold War?" has often been voiced as a political issue. This question-set focuses upon a number of comparisons between the Soviet Union and the West, or the United States, and measures the extent to which the individual perceives the Soviet Union as winning the missile race, as being better prepared for war, etc.

9. Military Capability: This and the final three question-sets are measures of four different kinds of policy preferences in the domain of foreign affairs. In this set, the respondent is asked, within varying contexts, if the United States should maintain present levels of military preparedness and capability. Other items ask if increases in the military posture of the United States are needed, for example, if the United States should have an anti-missile missile system. This question-set, in other words, does not ask about the various uses of military force, but rather focuses upon the possession of military capability.

10. Advocacy of War: The items in this set simply ask the respondent if he thinks that the United States should go to war against the "enemy"; for example, "Do you think the United States should declare war on Russia now?"

11. Non-War Military Extension: The above two question-sets attempt to measure both the possession of military capability and the "all-out" use of such capability as an instrument of foreign policy. Items in the present set, however, attempt to measure preventative or defensive uses of military capability. That is, the individual is asked if the United States should extend its military power in various parts of the world in other than a fighting way; for example, "Should the United States keep military troops in other parts of the world even at the risk of war?"

12. Non-Military Extension: As a final policy alternative, the individual is asked if the United States should extend its non-military resources to other parts of the world. We originally conceived of non-military extension as a general internationalist-isolationist dimension including such items as membership in the United Nations, foreign trade, diplomatic ties with other nations, etc. However, when this set of items was allocated to the specific five-year time-cuts, it turned out that the optimal set of comparable items (including some items included on the basis of the five criteria described in Section 5.4) all pertained to foreign aid. Therefore, although this set could correctly be labeled as "Foreign Aid," it was decided to maintain the more conceptually oriented title of "Non-Military Extension."

### 5.5.2 Allocation of the Question-sets to the Public Policy

#### Attitude Paradigm

Chapter Three presented a paradigm for the conceptual organization of public policy attitudes. To demonstrate the potential utility of the paradigm in ordering the heterogeneous research in the area of foreign policy, a number of illustrative foreign policy objects were presented. In addition to the burden of conceptual organization, this paradigm can also serve as a location device for any given study; that is, by referring to a study's position within the paradigm, a reader can tell what the scope of the study is, what kinds of attitudes are analyzed, etc. The purpose of this section, therefore, is to allocate the question-sets of our own data base to the paradigm.

Although the paradigm has two basic dimensions -- attitude components and foreign policy objects -- Chapter Three indicated that there are additional dimensions which could be applied to any given study. These additional dimensions could include the type of questions or scales used, the "depth" of the interviews, the nature of the population sampled, and the ecological site of the sample. The description of our own study, therefore, may begin in terms of these additional dimensions, and then discuss the particular question-sets in terms of the two basic dimensions. This is a study of (a) American (b) mass attitudes as measured by responses to (c) commercial public attitude surveys. The implication of this third element in the description is that the questions which appeared in the surveys were not devised in the context of any theoretical scheme, that is, scales or clusters of items representing the same underlying attitude were not included in the surveys. A further implication of the

source of the data is that although many attitudes are surveyed in a single sample, few attitudes are probed in depth. With these background descriptions of our data base in mind, the twelve question-sets described above may now be allocated to the two-dimensional public policy attitude paradigm in Figure 5.2.

The first and second question-sets both pertain to the respondent's "cognitive participation" in the sphere of foreign policy. While the second set contains a series of items in which the respondent is asked about his awareness of various crisis events qua events, the first set, Saliency, is harder to allocate within the matrix. As indicated earlier, these items are of the form "What is the most important issue facing the country today?" with the foreign policy-relevant responses being selected for analysis. Thus individuals may have responded with such answers as "peace," "the Russians," and "the Korean War." The problem arises with the attempt to allocate this cognitive saliency measure to one of the rows of the matrix, since some individuals have responded in terms of actors, while others have responded in terms of processes or things. The description of these saliency items which best encapsulates their apparent heterogeneity is one which refers to the "state of foreign affairs"; that is, the responses involved here do focus upon the individual's perception and cognition of the state of the world or the state of foreign affairs.

The third question-set includes a number of items referring to specific international crises, and each inquires as to the respondent's expectation that the crisis will escalate. While any individual single question might be considered as an event item, the set as a whole refers to the process of escalation, across several events. The next three sets

FIGURE 5.2

ALLOCATION OF QUESTION-SETS TO PARADIGM<sup>a</sup>

Public Policy Object Dimension	Attitude Dimension		
	Cognitive	Affective	Behavioral
Actors	8	7	
Things			
Events	2		
Processes	3		9, 11, 12
States	1, 4-5, 8	6	10

<sup>a</sup>The paradigm is described and discussed in Chapter Three, Section 3.2.3. Cell entries are the numbers of the question-sets presented in Figure 5.1 and described in the text accompanying that figure. Discussion of the allocation decisions in this figure is given in the following pages.

clearly describe states-of-affairs: the economy, war, and nuclear war. Cognitive expectations of war and economic decline or disaster may be, as pointed out previously, manifestations of a single negative outlook on the part of some individuals. On the other hand, by including both sets of items, it is possible to observe those circumstances under which the two sets do in fact converge or remain separate. While expectation of war is the cognitive component of the state-of-affairs called "war," the sixth question-set is a measure of the affective component of the attitude. The questions in this set hypothesize a nuclear war, and attempt to ascertain the respondent's fear that the area in which he lives will be a probable target.

The seventh and eighth question-sets contain items referring to the Soviet Union, and thus both have been entered in the actor row of the matrix. At this point it may be apparent that some of our allocation decisions could have been made differently. To illustrate this, two labels have been given to the eighth set, and it has been allocated to the actor row in the matrix, as well as to the state-of-affairs row. These questions all pertain to comparisons between the Soviet Union and the United States; for example, which nation is ahead in the missile race. If the analyst wishes to concentrate on the actor component, "Perceived Soviet Superiority" is an acceptable label. But the same items could be seen in "state of the system" terms, for example, perceptions of an East-West balance. In this case, therefore, the same question-set occupies two different rows in the matrix (although in both instances the items represent the cognitive component of an attitude). In making these allocation decisions, we have attempted to be as accurate as the items within

the question-sets allow us to be. Thus, the labels applied to the sets are meant to be as accurately descriptive as possible. The problem of labeling, however, is no different for the present study than for other research in which sets of attitude indicators are employed. Particular questionnaire items are but imperfect indicators of the assumed underlying attitude or attitude component. Similarly, the label which the researcher applies to an attitude scale, or a dimension resulting from a factor analysis, is always to some extent arbitrary depending on the researcher's own vocabulary and research focus.

The last four question-sets all involve policy preferences; in terms of the paradigm, these are action or behavior predispositions and have thus been located in the third column. It may be difficult in the case of action preferences to determine if the particular question-set represents a process rather than a state-of-affairs. To anticipate the kinds of arguments which can be made, any state-of-affairs may be considered as part of a process aimed at a "greater" state, and many processes can be considered from some points of view as "dynamic states." The first three action question sets describe processes, in our opinion, which aim at some undefined cold war state-of-affairs. When a respondent indicated that he is in favor of foreign aid or military commitments, the eventual state-of-affairs he desires is not self-evident. And while some may speak in terms of "the state of giving" or "the state of being committed," it is more natural to consider these question-sets in process terms. Advocacy of War, on the other hand, seems more the advocacy of a particular kind of state-of-affairs. Again, some might argue that war is but a means to some other end; however, war, like peace, is usually thought of as a fairly important "end" toward which purposive efforts are made.

It has been noted that the allocation of the twelve question-sets to the paradigm provides an estimate of the scope and breadth of the study. At the same time, the examination of the paradigm entries indicates the limitations of the study, for it is clear that not all cells are equally represented in our data base. The fact that coverage of all possible kinds of attitudes is not homogeneous has, of course, certain implications about the eventual generality of the results.

The main implication is, of course, that the foreign policy specialist who reads this study for its foreign policy attitude content will not find data analyses for all of the kinds of attitudes in which he might be interested. Most notably underrepresented is the "things" row in the matrix. It would be highly desirable if question-sets could have been constructed, over the 1946-1966 period, concerning cognitive knowledge of missile systems or disarmament treaties, as well as affective orientations and behavioral predispositions toward these objects. Similarly, the lack of any question-sets concerning the behavioral tendencies concerning foreign policy actors might be disheartening to students of contemporary foreign policy. In the same context, the actor question-sets focus upon the Soviet Union, whereas contemporary foreign policy is increasingly concerned with China.

Although these limitations of data are of some concern, the primary focus of this study is not the content of foreign policy attitudes, but the influence of the aging and generational processes upon a variety of attitudes. In this context, the variety of kinds of attitudes represented by the "filled" cells of the paradigm is fairly comprehensive. If it is found, for example, that attitudes toward the Soviet Union are strongly

associated with generational phenomena, it suggests (but does not, of course, prove) that attitudes toward China may vary in a similar fashion. Certainly the present study suggests that future researchers ought to look in the areas where aging and generational phenomena are seen to be operative.

Another limitation of data illustrated in the paradigm is the absence of any single foreign policy object represented in all three attitudinal columns. Using the actor row as the example again, it would be desirable to have a question-set in which alternative policies concerning the Soviet Union were measured. This is perhaps the greatest frustration of secondary analysis. Although large quantities of data are made available through the systematic interrogation of a large data bank, additional analytic questions can be posed for which little or no data can be found. Yet for purposes of the present study, this is no serious limitation, as our interests are in determining the influence of the age variable across a large number of attitude types. Although no single cognitive-affective-behavior attitude system can be studied completely, we are in the position to estimate the explanatory power of the two alternative age interpretations for each attitudinal component, and across a variety of foreign policy objects.

The question-sets represented in the paradigm do, however, represent the range of attitudes which could be thought of in terms of an attitudinal system. The initial element in such a system would be cognition of the attitudinal objects. This element is provided by the first two question-sets, Salience and Crisis Awareness. A second element is the recognition or perception or evaluation of threats within a given domain. Our data base contains four question-sets which generally measure negative expectations

emanating from the external environment. The next two question-sets, Negative Image of the Soviet Union and Perceived Soviet Superiority, measure a third element in the attitude system, evaluations of a threat-producing agent. Finally, the last four question-sets measure policy preference within the cognized and threat evaluated domain. Thus, although these twelve question-sets do not provide a common set of measurements across an attitude system for any one particular object, they do provide for empirical measures of all these elements for the domain of foreign policy.

#### 5.6 Summary

The purpose of this chapter has been to formally present the twelve question-sets which provide the basis of the cohort analyses in subsequent chapters. Just as important has been the detailed description of the operational procedures by which this twelve-set data base was constructed from a large collection of survey data. One difficulty inherent in the relatively recent interest in large scale secondary analysis is the lack of established guidelines for the construction of question-sets, similar to the guidelines established for single sample studies. Detailed and systematic procedures, summarized below, are substituted, therefore, for attitude scale coefficients and other quantitative measures which are usually used in single sample research designs.

The present study began in the context of a problem-oriented data bank of 123 national sample surveys, spanning the years 1946-1966, established at the Oak Ridge National Laboratory. This data bank represents a purposive sampling of the vast holdings of the Roper Center; surveys were selected for inclusion in the data bank on the basis of their foreign policy

content. The initial sampling of these 123 surveys was done on the basis of the age requirement of cohort analysis: the actual age of each respondent must have been included in the original data. Thirty-eight Gallup and seven NORC surveys possessed the required age data; these forty-five sample surveys became the refined data bank available for this study.

The forty-five age punched surveys were then subjected to a series of procedures aimed at constructing a number of attitudinal question-sets. The categories established for this search procedure represented (a) a priori categories which reflect the kinds of attitudes found in the relevant research literature, and (b) empirical categories which became necessary to describe the content of the existing data. All surveys were carefully read, question by question, and relevant survey items were transcribed into the appropriate categories. Final decisions were made so as to yield the most homogeneous attitudinal question-sets possible. Consequently, categories were continually modified to accommodate the data; that is, combined or decomposed according to both the a priori and empirical conditions mentioned previously.

The resultant categories and lists of survey items were then subjected to a three-part test. First, a series of round-table discussions were held with colleagues working with the same data bank and in the area of foreign policy attitudes; these colleagues represent a number of fields within the social sciences. A number of changes were made in the item lists in terms of (a) changing the nature of the categories and (b) re-allocating specific items. Second, an index of all survey items in the data bank, constructed for the purposes of psychological research with the data, was checked against the lists of questions to determine if any

relevant items in the forty-five surveys were overlooked. Finally a computer-produced key-word index of all questions and response categories in the 123 surveys was consulted, also for the purpose of checking for overlooked items.

When all the decisions based upon the above three tests were made, the entire classification procedure was started from the beginning. Each survey was again carefully read, lists were constructed, and more conferences with colleagues were held. The results of both phases were then compared, and adjustments made where needed. The result was not a sample, but a complete enumeration and categorization of all survey items relevant to the study of foreign policy contained in the forty-five age punched surveys.

Although these procedures produced approximately twenty-five question-sets representing all forty-five surveys, not all surveys and survey items could be subjected to analysis. The next set of decisions, therefore, concern the selection of specific items for analysis. Chapter Four outlined the various decisions involved in constructing age intervals for a cohort analysis. It was decided that either four- or five-year intervals were desirable. The question-sets were then studied to determine which of these two sets of intervals yield the greatest number of question-sets and items. It was found, for example, that the four-year interval is represented by fourteen surveys while the five-year interval is represented by twenty surveys. The number of relevant items for the two intervals reflects the number of surveys, that is, the five-year interval was chosen for use in this analysis because a greater number of items were made available for analysis.

Having chosen the five-year interval, the question-sets were again studied to determine which ones contained sufficient numbers of items for analysis. Certain sets, for example, could not be used because they possessed no items which appeared in the years represented by the five-year interval, or because they contained too few items in these years. It is desirable, of course, to have at least one survey question in each of the five sampling points used in the analysis. Unfortunately it was necessary to include question-sets with one or two missing data points. The result of all these operations is a series of twelve foreign policy attitude question-sets representing a variety of attitudes. Demonstration of this variety has been given by the allocation of the question-sets to the public policy attitude paradigm proposed in Chapter Three.

## CHAPTER SIX

### STATISTICAL TRANSFORMATION AND REDUCTION OF DATA

#### 6.1 Introduction

The description in the previous chapter of the technical problems of attitude cluster formation in the case of a multiple-survey research design leads to a further class of considerations: the statistical analysis of the question-sets. Having described the procedures and criteria which were employed to construct meaningful attitude clusters across many surveys, we are now faced with the problem of how to best ascertain, in a quantitative sense, longitudinal trends in foreign policy attitudes. Ideally, of course, trends should be measured as responses over time to identically worded questions. Unfortunately, attitude researchers in general, and commercial opinion pollsters in particular, do not often consider the possibility that their studies will be used in secondary analyses which will employ a multiple-survey design.<sup>1</sup>

Two unwanted sources of variation enter the analysis when the set of questions used to measure a given attitude are differently worded. First is the problem of question-wording itself. One question pertaining to the desirability of foreign aid, for example, might be relatively easy to answer "yes" to, whereas the second indicator of foreign aid sentiment might be phrased in such a way such that only a small portion of a national sample can agree with it. The attitude researcher working with a single

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<sup>1</sup>Paul F. Lazarsfeld, "The Obligation of the 1950 Pollster to the 1984 Historian," Public Opinion Quarterly, 14 (1950), pp. 617-638.

cross-sectional sample survey has a number of methodologies at his disposal to adjust for such wording differences--summated scales, average response, Guttman scalogram analysis, factor analysis--which the multiple-survey analyst cannot legitimately employ. This is so because in the latter (and the present) situation the several questionnaire items appear in separate surveys and have been responded to by different individuals.

The second unwanted source of response variation is contained in the different historical-political context in which the question is asked. Of course, if the series of questions were identically worded, then this source of variation would in fact be one measure of the degree of change in the situation. However, when the questions are worded differently, the interaction between the wording and the situation confound the degree of attitudinal change present. The problem of measuring relative changes within a population when the whole population is itself changing is not, of course, unique to political science. An obvious example of this phenomenon is in the field of economics, wherein the dollar changes in national income must be reconciled with the fact that inflationary pressures alter the actual value of the dollar. Therefore, changes must be measured in terms of some standard of measurement, such as "1947 dollars" or in terms of deviations from a moving or fluctuating average.

In the present study, a variation of the moving average solution has been chosen. It should be pointed out, however, that the statistical transformations which will be proposed in this chapter have not, to our knowledge, been employed as the primary means of tracing attitudinal trends over a long period of time in any other study of political behavior.<sup>2</sup>

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<sup>2</sup>In a recent longitudinal study of American aggregate voting statistics, however, Burnham employed some of the measures to be described in

Before describing the logic and method of these transformations, therefore, we will briefly describe the various alternatives which have appeared in the sparse but growing secondary analysis research of longitudinal attitude trends.

## 6.2 Previous Investigations of Socio-political Attitude Trends

The discussion in this section will describe a number of studies in which scholars have attempted to employ a secondary analysis approach to the estimation of attitudinal trends. The list of examples is not exhaustive; however, most of the relevant published research has been included. As has been stated earlier, the establishment of large-scale survey data archives is a relatively recent phenomenon. Consequently the volume of research which is based upon archival data is small.

One type of trend estimation is that in which the data archive is very selectively interrogated in order to find a small number of questionnaire items which illustrate a particular point. The work of Back and Gergen referred to in the previous chapters illustrates this type.<sup>3</sup> The authors select, for example, a 1947 item which appropriately illustrates the phenomenon under investigation, and similarly select a 1954

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in this chapter in ways which are similar to our own use of them. See: Walter Dean Burnham, "American Voting Behavior and the 1964 Elections," Midwest Journal of Political Science, 12 (1968), pp. 1-40. Using four-year intervals (presidential elections), Burnham's data span the period 1880-1964.

<sup>3</sup>See, especially: Kenneth Gergen and Kurt W. Back, "Aging, Time Perspective, and Preferred Solutions to International Conflicts," Journal of Conflict Resolution, 9 (1965), pp. 177-196; and "Communication in the Interview and the Disengaged Respondent," Public Opinion Quarterly, 30 (1966), pp. 385-398.

item. In another part of the analysis, the "time series" might focus upon a 1950 item and a 1958 item. Since the point of their sequence of articles was to indicate that certain changes have in fact taken place over time, as contrasted with the actual estimation of trends, no effort is made to standardize responses emanating from differently worded questions at time one and time two.

Another type of trend analysis, one which does use systematic series of questionnaire items, is that which compares cross-sectional results at time one with cross-sectional results at time two with an effort to gauge time differences rather than trends. In a number of recent articles, Glenn and his colleagues attempt to demonstrate that the "mass society" hypotheses current in much social commentary is false.<sup>4</sup> Glenn's approach is to show that intergroup differences--men and women, old and young, white collar and blue collar, North and South--on a number of social and political attitudes are just as great (or greater) now than they were a given number of years ago. Since the various groups are initially compared within a single survey, there is no need to compensate for the fact that the attitude item in different time-cuts was worded differently. The fact that the size of intergroup attitude differences at each successive time cut might be affected by the particular wording of the questionnaire item is not, unfortunately, given consideration.

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<sup>4</sup>Norval D. Glenn, "Massification Versus Differentiation: Some Trend Data from National Surveys," Social Forces, 46 (1967), pp. 172-180; Norval D. Glenn and J. L. Simmons, "Are Regional Cultural Differences Diminishing?" Public Opinion Quarterly, 31 (1967), pp. 176-193; and Norval D. Glenn and Ruth Hyland, "Religious Preference and Worldly Success: Some Evidence from National Surveys," American Sociological Review, 32 (1967), pp. 73-85.

The method which a scholar employs to estimate trends from his data depends, of course, on the particular kind of hypotheses he is attempting to verify. Thus, V. O. Key, using many differently worded items across a number of national elections, compared, in each case, an attitudinal item with the respondent's party identification.<sup>5</sup> Although the items were different, Key was analyzing trends in a derived variable, namely, the consistency between party identification and issue positions. Again, as in the research cited in the previous paragraphs, there is little guidance here for our present problems of differently worded items presented to national samples in different situational contexts.

In what is probably the most ambitious use of a multiple-survey design in political research, Pool and his colleagues attempted to simulate the 1960 and later the 1964 presidential election.<sup>6</sup> The Simulmatics solution to the problem of question-wording was aggregation. A large number of surveys within a small period of time were combined. The responses to all items pertaining to a particular issue were simply coded as for, against, and don't know. Although the individual items which were thus aggregated may have differed severely in the ways in which they tapped the underlying attitude, the authors felt that the sheer volume of respondents represented by the several surveys would compensate for this unwanted response variation. Since the authors were basically interested in the proportions of

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<sup>5</sup>V. O. Key, The Responsible Electorate. Cambridge, Massachusetts, The Belknap Press, 1966.

<sup>6</sup>Ithiel de Sola Pool, Robert P. Abelson, and Samuel Popkin, Candidates, Issues and Strategies. Cambridge, Massachusetts, The M.I.T. Press, 1965.

the population which were for or against (or apathetic toward) various issues, the methodology chosen seems to fit the problem.

A final type of secondary analysis trend estimation research can be designed in which the problem of question-wording does not arise. Two notable analyses of this type are those by Alford and Rosenthal.<sup>7</sup> Alford was interested in class patterns in voting behavior in the United States, the United Kingdom, New Zealand, and Australia; he also investigated the effects of religion and regionalism on these patterns. By dichotomizing standard occupational indicators into blue collar and white collar categories, and by classifying voting and party identification behavior into a simple left-right continuum, Alford was able not only to surmount differences in the wording of questionnaire items, but also to "control" for cross-national differences in question content. Of course, his methodology was based upon the substantive hypothesis that the meaning of political and occupational differences in the four nations was essentially the same. Alford did not attempt to standardize his data in terms of the possible variation introduced by changing historical contexts.<sup>8</sup>

In his analysis of trends in French response to the question "Do you approve of De Gaulle as President?", Rosenthal selected a time-series of identically worded questions. To test for the differential impact of the situational context, Rosenthal ingeniously employed the item-whole

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<sup>7</sup>Robert R. Alford, Party and Society. Chicago, Rand McNally, 1963; Howard Rosenthal, "The Popularity of Charles De Gaulle: Findings from Archive-based Research," Public Opinion Quarterly, 31 (1967), pp. 381-398.

<sup>8</sup>The work of Crittenden cited in Chapter Four is also in this category, since the determination of party identification was made from questions worded virtually identically. Like Alford, however, Crittenden makes no attempt to control for possible differences in historical contexts.

correlation to determine if any one of his eleven items correlated with the whole battery of items in a different manner than the remaining items. He found that the eleventh survey correlated much lower with the previous summated ten surveys. Upon further investigation it was found that this survey took place immediately after the 1962 national referendum campaign; the results demonstrated (a) that the political context of approval of De Gaulle had changed significantly, and (b) that the survey in question could not be included in the relatively homogeneous set of ten previous surveys.

Our brief description of these studies illustrates that there is little precedent for designing solutions to the problems of the present research. The fact that none of the researchers (with the exception of Rosenthal) saw the need to correct their data for variance induced by question-wording effects and historical-contextual effects does not mean that the research is faulty; in fact the work of Glenn and Key in particular is to be recommended for the substantive insights which their respective methodologies yield. Rather, this discussion indicates that a solution to the problems of unwanted variance must be developed within our own research.<sup>9</sup>

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<sup>9</sup>While the various methodologies are described in full here for the first time, portions of these remarks were introduced in: Davis B. Bobrow and Neal E. Cutler, "Time-Oriented Explanations of National Security Beliefs: Cohort, Life-Stage and Situation," Peace Research Society (International) Papers, 8 (1968), in press.

### 6.3 Tabulation and Transformation of Data

For each cross-tabulation of age by a foreign policy attitudinal variable, the "don't know" category has been eliminated and the remaining responses dichotomized. For those survey items which allowed for multiple responses, all of the responses were combined in ways consistent with the nature of the question category. In the following analyses, raw data tables were constructed in which the columns represent the dichotomized attitude variable, while the rows represent the age variable. Percentages were computed across the rows, that is, within each age group. With percentages computed in this fashion, it is possible to look down either one of the columns and determine the differential support given for (or against) a particular survey item by each cohort and life-stage group, e.g., the "yes" column in Table 6.1.

At this point in the analysis, we thus have a series of percentaged age-by-attitude cross-tabulations. The levels and magnitude of the percentages, however, are affected by the respondents' differential reactions to both of the sources of unwanted variation described above. We decided to compensate for differences in question-wording and situational context by standardizing the response distributions for the various life-stage and cohort groups with a z-score transformation. A z-score transformation has the advantage of standardizing the responses of each group in terms of both the mean and variance (standard deviation) of a given survey item in a given sampling year. Table 6.1 demonstrates the derivation of z-scores from our sample survey data, using as a typical example the responses to a question about the respondent's expectation of war. The entire sample was first sorted by age group. After the "don't know" category was omitted,

TABLE 6.1

EXAMPLE OF Z-SCORE DERIVATION:

"DO YOU EXPECT WAR IN 25 YEARS?"<sup>a</sup>

Age Group	N	No	Yes	Z-Score ("Yes")
1. 21-25	292	23.6%	76.4%	1.47
2. 26-30	317	24.3	75.7	1.26
3. 31-35	299	28.1	71.9	0.08
4. 36-40	331	25.7	74.3	0.83
5. 41-45	259	29.3	70.7	-0.30
6. 46-50	264	30.7	69.3	-0.72
7. 51-55	224	30.4	69.6	-0.62
8. 56-60	184	24.5	75.5	1.21
9. 61-65	129	30.2	69.8	-0.58
10. 66-70	102	31.4	68.6	-0.93
11. 71-75	62	33.9	66.1	-1.71

Mean = 71.64%

Standard Deviation = 3.23%

<sup>a</sup>Source: American Institute of Public Opinion #379 (1946)

each age group was then dichotomized into those responding "no" and "yes" to the question. Since our interest here is in the behavior of each age group as an individual relative to other individuals, the use of horizontally computed percentages allowed us to compensate for the varying number of respondents in each age group.<sup>10</sup> We then chose the column vector in which we were interested (in this example, the "yes" column) and treated it as a distribution of raw scores. The mean and standard deviation of this percentage column then became the input to the standard z-score formula, the results of which are demonstrated by the right-hand column in Table 6.1.<sup>11</sup>

These procedures were executed for all questions in each category and for each sampling point. A z-score transformation also has the advantage of not changing the basic order of scores as they are found within the original distribution of scores. In other words, the position of each

<sup>10</sup>Of course, the varying number of respondents in each age group within the sample reflects the fact that the population being sampled has varying proportions of individuals within each age group. If our purposes were to predict the outcome of an election, for example, then we would want to analyze each age group in terms of its actual proportion in the sampled population. However, our interest is not in this direction. We want to treat each age group as an independent actor, so that the explanatory effects of age upon foreign policy attitudes can be isolated.

<sup>11</sup>The formula for standardizing the percentages, that is, creating z-scores, is as follows:

$$z_i = \frac{x_i - \bar{x}}{s}$$

where:  $x_i$  is an element from a score vector,  
 $\bar{x}$  is the mean of the vector,  
and  $s$  is the standard deviation of the vector.

An intermediate level algebraic derivation of the z-score formula is given in William L. Hays, Statistics for Psychologists. New York, Holt, Rinehart and Winston, 1963, p. 187.

cohort or age group relative to all other groups sampled at a given point in time remains the same for the z-score distribution as it was in the original distribution of percentages.<sup>12</sup> Thus, each z-score represents the true interval position of the given age group in the total space occupied by the original distribution of age groups. Since the original distribution of responses is not necessarily normal in shape, the z-scores cannot be used to estimate areas under the normal curve. On the other hand, it is possible to accomplish the purpose of the present study which is to compare the positions of a given age group in two or more different surveys.

#### 6.4 Data Reduction Procedures

Figure 4.1 of Chapter Four presented the "Cohort Analysis Matrix," which portrays the general structure of the comparisons which will provide the basis of our investigation of the age variable. The appropriate z-score can be inserted into each cell of the matrix, column by column. It is at this point that our analytic methodology can return to models established by specialists in attitude measurement. The series of z-scores for each cohort group (the diagonals of Figure 4.1) or each life-stage group (the rows of Figure 4.1) can be considered as a single "score vector" representing the responses of the group to the particular question-set or underlying attitude across a maximum of five measuring points.

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<sup>12</sup>Hays, for example, gives the verbal definition of a z-score as "the relative location of a score in a frequency distribution." ". . . changing the scores in any distribution to z-scores does not alter the shape (or mathematical form) for the distribution. The frequency of any given z-score is exactly that of the  $x_i$  score corresponding to it in the distribution." Hays, ibid.

In order to locate the various effects in which we are interested, each score vector has been summarized by computing the mean z-score representing each life-stage and cohort group for each attitude. When, for example, we wish to show the effects of a particular stage in the life cycle, the mean z-score can be obtained for all cells representing, for instance, the 31-35 life-stage group across all of our sample points. It is then possible to compare this mean with the similarly calculated mean for all of the 66-70 age groups. To locate the effects of generational experiences, the mean z-score positions can similarly be computed for the members of the various cohorts. These computations indicate the average direction of the attitudes for any given age or cohort group. For example, by comparison we might determine that for the years 1946 through 1966 (the parameters of our data base) younger people (early stages in the life cycle) have a lower mean expectation of war than older people.

This mode of reducing large quantities of attitude measurements by pooling and/or averaging them is known in the annals of attitude measurement as "summative scaling." In his comprehensive article describing recent developments in attitude measurement, Scott describes summative scales as follows:

The basis for this scoring procedure is the assumption that each item constitutes an imperfect measure of the critical attribute--imperfect in that responses to it are determined not only by the common single attribute but also by various irrelevant influences which are uncorrelated from one another. . . . The model is again akin to measurement models in physics, wherein any empirical measure is assumed to reflect the intended property, primarily, but also "errors of measurement," secondarily. To the extent that errors are large, it is necessary

to pool the results of many different measures, averaging them to arrive at the best estimate of the "true" magnitude.<sup>13</sup>

The use of mean z-scores as the operational measure of cohort and life-stage attitudes, therefore, is consistent with the methodology of attitude measurement.<sup>14</sup> It is important to point out that in addition to the comparative analysis of relevant attitude position from one group to another which the mean z-scores allow, the magnitude of each individual mean z-score is also interpretable. For example, a mean z-score of -1.9 indicates that the particular age group, for the 1946-1966 period, has a quite low level of endorsement of the particular attitude. Statistically interpreted, the -1.9 indicates that on the average the age group is close to two standard deviations below the mean endorsement of the attitude.

Once the basic substantive interpretation of the mean z-scores is apparent--both in terms of the magnitude of the number and its sign--a large number of inter-age group and inter-attitude comparisons can be made. For example, if for a given attitude the array of mean z-scores, from historically oldest cohort to the historically most recent cohort, is the set [-1.9, -0.7, 0.3, 1.8, 2.4], then two independent conclusions

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<sup>13</sup>William A. Scott, "Attitude Measurement," Final Draft of article to appear in G. Lindzey and E. Aronson (eds.), Handbook of Social Psychology, Revised Edition, forthcoming, 1969, p. 79.

<sup>14</sup>There is in professional circles some discussion concerning the relative merits of simple summated scales vs. more elaborate techniques, such as Guttman scalogram analysis, factor analysis, etc. Although it is assumed that these other technologies yield more information about the structure of the attitude, at least two prominent students of attitudes have concluded on the basis of empirical studies that the complex approaches do not consistently provide results superior to simple additive scales. For a further discussion of this controversy, as well as a listing of the relevant studies, see ibid., p. 49.

can be drawn. First, endorsement of the particular attitude is generationally increasing, as indicated by the ordinal nature of these hypothetical data. Second, the magnitude of the trend is from quite low endorsement to a fairly high level of endorsement, as given by the actual values of the mean z-scores. Given the set [0.2, 0.2, 0.3, 0.4, 0.6], the first of the above two interpretations is again valid, but the second interpretation would be quite different. In this way, the use of the mean z-scores allows us to draw comparative age group to age group interpretations as well as assess the magnitude of trend interpretations.

#### 6.5 Statistical Detection of Age Effects: Mean Deviations and Polynomial Regressions

As stated in the introductory chapters to this study, we are interested not in the generational and aging process trends in foreign policy attitudes per se, but, more generally, in the relative effects of these two manifestations of the age variable upon patterns of political behavior. Our data on foreign policy attitudes, therefore, give us an opportunity to detect the relative impact of both cohort and life-stage upon a common data set. Two kinds of statistical measures will be considered.

In the previous section the z-scores for each age group were conceptualized as a set or vector of five attitude measurements, from which a mean could be legitimately calculated. Another possible product of these score vectors is the mean deviation of the vector. The mean deviation for each set of attitude scores gives a measure of the relative homogeneity or variation of that set. We stress that the mean deviation must be interpreted as a relative measure since no assumptions about the

normality of the distributions of attitude z-scores can be made. Only if all of the distributions could be considered as normal, or approaching normality, could the measures of deviation have a statistical interpretation outside of the context of any comparisons. Nonetheless, within the scope of the present inquiry it is possible to use the mean deviation of each attitude cluster, or question-set, to ascertain the relative effects of the generational and aging processes.

Consider again, for example, the two hypothetical sets of z-scores given in the previous section, the first ranging from -1.9 to 2.4 and the second ranging from 0.2 to 0.6. It is quite clear, without going through the actual calculations for these hypothetical data, that there is greater variation, that is, a greater mean deviation would result, in the first set than in the second.<sup>15</sup> Assume further that the two sets of scores refer, respectively, to a life-stage group (row scores in Figure 4.1) and a cohort group (diagonal scores in Figure 4.1). Initial interpretation of this single pair of mean deviations would point out that greater uniformity of response (i.e., a smaller mean deviation) is associated with the cohort than with the life-stage. Of course, these hypothetical data represent a single cohort compared with a single life-stage, whereas we

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<sup>15</sup>The mean deviation is computed as follows: The mean z-score is calculated for a set of scores as already described. The difference between this mean and each of the scores is then calculated. Since the sum of the deviations around the mean by definition equals zero, the sign of each deviation is ignored. The sum of these absolute-value deviations is obtained and then divided by the number of scores. Although the standard deviation is a more widely used measure of dispersion because of its algebraic properties, the mean deviation is more appealing for the present purpose because of its intuitive interpretation. See: Hubert M. Blalock, Social Statistics. New York, McGraw-Hill, 1960, pp. 66-67.

are interested in the overall effect of cohorts and life-stages. In order to observe the more general phenomenon the mean deviation is calculated, within each question-set, for each of the seven cohorts and each of the eleven life-stages described by Figure 4.1. By obtaining and comparing the average mean deviation for all cohorts, as well as for all life-stages, it is possible to decide which age-related effect is greater. Stated operationally, the smaller the average mean deviation, the greater the group attitudinal homogeneity. The calculations can then be performed for each of the twelve question-sets. These comparisons, then, will allow us to determine the kinds of foreign policy attitudes for which the generational effects are greatest, the attitudes for which the life-stage effects are greatest, and the attitudes for which there is little difference.

The second set of statistical calculations by which the comparative effects of cohort and life-stage will be determined is that of polynomial regression. Any given distribution can be described in a number of ways. The most obvious and widespread approach is to calculate a single value which describes the central tendency of the distribution, and another single value which describes the variation or dispersion of the distribution. The mean z-score and mean deviation procedures just described are single-value measures of this kind. While these summary statistics yield important information about the distribution of scores, much descriptive information is lost. Two distributions may have quite different structure, yet have identical measures of central tendency and dispersion.

The problem of the structure or shape of a distribution of scores is particularly salient when time series data are being considered, as in the present study. The questions asked here concern the shape of attitude

trends over a twenty-year period as the trends are seen from generational and aging process perspectives. Unfortunately a great deal of research in political science focuses solely upon measures of central tendency, and ignores the shape of the underlying distribution. In the present study, consideration of the shape of the distributions is essential to the substance of the theoretical interest in cohorts and life-stages.

For any given distribution of points on a graph, a number of different lines or equations can be computed which describe the shape of the distribution. The line of "best fit" for any given distribution of points is that line which minimizes the total deviations around the line. The Pearson product-moment correlation, for example, is a measure of the degree to which the relationship between two variables can be approximated by a straight line (technically, a linear or first degree curve). The greater the clustering of points around the line the higher the correlation coefficient. Not all distributions of points, however, can best be described by linear curves. In fact, if a measure of linearity is applied to a nonlinear distribution, the degree of fit will be quite low. For example, if a distribution of points looks something like the letter "N" then even the best-fit straight line would yield a large amount of deviation around the line; a third degree or cubic curve would actually be the line of best fit.

The process of fitting a line to a bivariate distribution of points is called "regression." While linear regression is the most widely used form reported in published political science research, polynomial regressions will be used in the present study. Polynomial regression is a process of fitting lines of varying numbers of curves to the same distribution, starting with the linear curve and adding additional curves to it

in order to estimate the increase in goodness of fit of line to distribution. At each stage we can determine the amount of variation in the distribution which is "explained" by the curve.<sup>16</sup> If every one of the points in the hypothetical "N" distribution mentioned above fell exactly on the "N," then a third degree polynomial would account for one hundred per cent of the variance within the distribution. A linear or quadratic curve, of course, would account for some proportion of the variance, but only the cubic polynomial would describe the "essence" of the "N" distribution. This example illustrates the use of polynomial regressions in our age data: a comparison of the percentage variance accounted for by first, second, and third degree polynomials, as plotted against cohort and life-stage, indicates the strength of the two age effects in accounting for variance across the attitudinal question-sets.

When, for example, the life-stage trend is plotted for a given attitude, the distribution of points may approximate a straight line, with perhaps ninety per cent of the total variance accounted for by the first degree polynomial. This would be a significant finding from a theoretical standpoint which would allow us to state the proposition that "as age increases, attitude X increases." When the cohort trend is plotted for the same attitude, the linear polynomial may account for only ten per cent of the variance; and we would quite obviously not have a linear relationship

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<sup>16</sup>Technically, the model used in the estimation of the proportion of variance explained by successive increments in the complexity of the polynomial is that of analysis of variance. At each level of the regression a given proportion of the total sum of squares is explained by the regression itself, with the remaining sum of squares left as unexplained deviation around the regression. Since the total sum of squares can vary from distribution to distribution, conversion of the explained sum of squares to percentages facilitates comparison across age groups and across question-sets. See: Blalock, "Nonlinear Correlation and Regression," *ibid.*, pp. 311-317.

between attitude X and the process of generational succession. The second degree polynomial for these same cohort data, however, might account for eighty-five per cent of the variance. This would indicate that a strong curvilinear relationship exists for the two variables (age and attitude), which is also theoretically meaningful. In these ways, the use of polynomial regressions allows us to compare the relative impact of cohort and life-stage upon each question-set: the greater the proportion of variance accounted for by each successive degree of polynomial, the stronger the age-related effect.

The use of polynomial regressions, and particularly the percentage of variance accounted for by linear, quadratic, and cubic curves, facilitates the comparison of the shapes of attitudinal distributions associated with the concepts of cohort and life-stage. Since most of the variation in any distribution of observations could be accounted for as additional curves are entered into the polynomial regression, the comparisons made in the present study will be based upon only the first, second, and third degree curves. As pointed out previously, cohort analysis allows the investigator to directly confront the aging and generational interpretations of the age variable within a common data set. By applying polynomial regression analysis to the cohort and life-stage effects to the same set of attitudinal measurements, we are in a good position to estimate the power of each in affecting patterns of political behavior.

## 6.6 A Short Note on the Non-use of Statistical Tests

Our approach to the determination of generational and aging process effects will be, as the previous sections described, to employ certain relatively straightforward descriptive statistical measures. These statistics--z-scores, means, deviations, and polynomials--will be used solely in their descriptive context and not in an inferential context: no statistical "tests of significance" will be employed. There are, of course, such tests which can be used in conjunction with these statistics, for example, differences between means, analysis of variance to estimate statistically significant amounts of variance explained by the polynomial increments, etc. For the reasons to be discussed below, however, such statistical tests will not be used as an aid in the interpretation of our cohort analysis data.

There is a continuing debate among social scientists, especially among sociologists and psychologists, concerning the efficacy of using significance tests. The argument often made by those in opposition is that what is statistically "significant" is not always substantively, scientifically, or socially significant. Similarly, the argument continues, social significance may be found in empirical relationships which are not statistically significant. Of course, the rebuttal to such a line of argument would merely point out that the two meanings of the term "significant" should be clear to the researcher; it is his responsibility to report and interpret his data in light of both meanings. If a researcher confuses political or social importance with statistical significance, the fault is with the researcher and not with the mathematical symbols which define the statistical test. On the positive side, statistical tests can

aid the researcher in distinguishing among several combinations of data (e.g., correlations, percentages, and averages), each of which may be potentially socially important, but only one of which may be empirically meaningful (i.e., non-chance). Thus, if we had a choice, tests of significance would be employed.

Unfortunately, the nature of our data preclude the use of tests of statistical significance. Research in the area of sample design and sample statistics has revealed that for most research purposes, some form of a randomly drawn sample is assumed.<sup>17</sup> Yet those of us interested in trend analysis of attitudinal data must live with the fact that secondary analysis of existing surveys is mainly based upon data derived from quota samples. The randomness-probability assumptions required by most of the accepted statistical tests cannot, therefore, be met. It is important to note, however, that even the possession of the most desirable kinds of normally distributed, randomly collected survey data would not settle the issue, as Selvin has pointed out.<sup>18</sup>

Secondary analysis of quota samples requires a complement of statistical tests based upon assumptions which these data can honestly meet. It has been possible to design comparative research in which the relative accuracy of quota and non-quota sampling methods is estimated.<sup>19</sup> However, "more can be done to analyze the performance of quota procedures than the

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<sup>17</sup>Blalock, *op. cit.*, p. 410; Leslie Kish, Survey Sampling. New York, Wiley, 1965, p. 562 ff.

<sup>18</sup>Hanan C. Selvin, "Critique of Tests of Significance in Survey Research," American Sociological Review, 22 (1957), pp. 519-527.

<sup>19</sup>C. A. Moser and A. Stuart, "An Experimental Study of Quota Sampling," Journal of the Royal Statistical Society, 116 (1953), Part IV, pp. 349-405.

critics admit or the advocates of quota methods have attempted."<sup>20</sup> The establishment of survey data banks creates both the demand and the opportunities for statistical and methodological research needed to understand more fully and more precisely the implications of quota sample data.

Stephan and McCarthy<sup>21</sup> have presented and discussed some of the procedures and formulas needed to estimate the sampling variability produced by repetitive applications of any particular sampling framework. It should be remembered, they argue, that the repeated application of any sample design will yield an identifiable sampling distribution of the attitude or characteristic being sampled; and further, that the variability of this distribution of attitudes can be calculated.

As a consequence of the need for statistical tests based upon the properties of quota sampling, highlighted by our own experience with the present study, research plans are now being formulated in which some of the insights and suggestions given by Stephan and McCarthy will be operationalized and executed using the quota data contained in the Oak Ridge National Laboratory survey data bank. We hope, for example, to determine the quota variation related to: (1) single demographic variables, e.g., age or sex, which are usual quota-control variables; (2) single attitudinal variables, e.g., "Do you approve of \_\_\_\_\_ as President," a question which appears in the identical form in virtually all American national samples (Gallup) over the past twenty years; and (3) the proportions produced by the cross-tabulation of attitude and demographic variables. As

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<sup>20</sup>Frederick F. Stephan and Eugene J. McCarthy, Sampling Opinions. New York, Wiley, 1958, p. 211.

<sup>21</sup>Ibid., Chapter 10: "Sampling Variability of Quota Sampling Procedures," pp. 211-234.

this research unfolds, it is hoped that we will be in a better position to outline the kinds of correlational measures and tests of significance which are operable in a statistical sense for quota sample data.

## CHAPTER SEVEN

### COHORT EFFECTS

#### 7.1 Introduction

The empirical results of this cohort analysis of attitudes toward foreign policy are presented in this and the two following chapters. As pointed out earlier, information concerning the generational cohorts is but one aspect of the information which the technique of cohort analysis yields; information on the effects of the aging process is produced as well. The present chapter, therefore, will describe the attitudinal trends associated with the cohort construct. The following chapter, parallel in construction to the present one, will present the foreign policy attitude trends associated with the life-stage construct. One of the major contributions of cohort analysis to the study of behavior which is related to age is the ability of the researcher to confront the generational and aging process effects against each other in the same data set. This cannot be done in cross-sectional research designs. In Chapter Nine, therefore, we will take advantage of this potential and directly compare the effects of cohort and life-stage within the foreign policy attitude data.

The strategy adopted for this and the following chapter is one of first concentrating upon the age-related trends in each of the twelve foreign policy question-sets. Since these twelve attitudes represent a variety of types of attitudes, it is important to determine if there are differences in the impact of the effects of age upon the various types.

Since the typology of attitudes employed earlier to describe the foreign policy question-sets can be used also in other substantive domains, the generalization of our results beyond foreign policy depends upon the observed effects in each of the attitude types. While efforts will primarily be oriented to the single attitude trends, a substantial effort will also be devoted to the isolation of multiple attitude trends and patterns. This work will be presented not only for the substantive conclusions which will result, but also as a demonstration of the efficacy of (a) generational and aging process analysis of political behavior, and of (b) cohort analysis as an appropriate technique for constructing such an analysis. In discussing multiple attitude trends we will analyze selected examples of covarying attitude pairs, and then move to an analysis of the multiple attitude profiles of the cohort and life-stage groups across all twelve attitude question-sets. In presenting these data, our approach will have four elements: (1) a summary table, (2) graphs, (3) specific hypotheses, and (4) attribute-space analysis.

The first element is that of a summary table of mean z-scores for all age groups across all twelve attitudes. Table 7.1, therefore, summarizes the complete set of cohort effects which the analysis provides. Each column in the table describes the scores of one cohort across all of the twelve attitudes, or rows. Each of the cells, in turn, represents the average of the z-scores which that cohort obtained in each of the five sampling points in our data. It will be recalled from Table 4.1 that the "Cohort Analysis Matrix" allows us to observe cohorts across time by looking at the scores between the diagonal lines. The average of the five scores which a cohort received for a particular attitude thus becomes the mean z-score for that attitude, and thus occupies one cell in Table 7.1.

TABLE 7.1  
COHORT MEAN Z-SCORES<sup>a</sup>

Question-Set	Cohort 1	2	3	4	5	6	Cohort 7
1. Salience	-.94	-.06	-.53	.09	.30	.98	.56
2. Crisis Awareness	-1.00	-.53	-.48	.33	-.60	-.32	.35
3. Expectation of Crisis Escalation	.33	.44	.25	.00	.02	.54	-.45
4. Expectation of War	-.35	-1.26	-.25	.05	.11	.64	.95
5. Negative Economic Expectations	-.97	-.67	-.12	-.45	.07	1.07	.69
6. Expected Local Nuclear Danger	-.50	.40	-.77	.72	.58	.71	.18
7. Negative Image of U.S.S.R.	1.05	.41	.06	-.68	.31	.26	-.45
8. Perceived Soviet Superiority	.41	.34	.41	-.16	-.16	-.03	-.04
9. Military Capability	-.05	.33	.39	.74	.74	.29	1.14
10. Advocacy of War	-.04	.20	-.54	-.49	.27	.23	.78
11. Military Extension	-.62	-1.05	-.68	-.45	-.12	.43	.84
12. Non-Military Extension	-.93	-.51	.23	.14	.15	.19	.88

<sup>a</sup>Column entries range from historically oldest cohort to historically most recent cohort. Each entry represents the arithmetic mean of all z-scores obtained across the five sampling points, 1946-1966. Thus, each entry represents an entire cohort diagonal row as depicted in Table 4.1, the "Cohort Analysis Matrix."

While each column, therefore, yields a quantitative twelve-attitude profile of the cohort groups, each row provides the historical trend for a given attitude. Since the table is arranged so that the first column is the historically oldest cohort and each subsequent column is a historically more recent cohort, each row indicates the direction in which the attitude is moving. The first row, for example, contains the cohort data for the Salience question-set. The first entry in this table,  $-.94$ , reads as follows: Across all five sampling points, the average Salience z-score obtained by the historically oldest cohort is  $-.94$ . It will be recalled that a negative z-score indicates that the particular age group is below the average response for a given sampling point. A negative average z-score, therefore, indicates that across all sampling points, the tendency is for the age group to be below the average response.

The Salience row yields a fairly clear cohort trend. With two exceptions (cohort three and cohort seven) each successive cohort has a higher score than the previous cohort, indicating, therefore, a generational trend toward increasing Salience. Furthermore, this is not just an upward trend, but one which begins at a relatively low level and increases to a relatively high level.

Our preliminary discussion of the Salience question-set has been designed to serve as a demonstration of one of our major interests in this study, that of determining the shape of trends. That is, we are interested in knowing not only that there has been a change in public attitudes concerning the Salience of foreign policy matters which corresponds to generational succession, but that the shape of the trend is one approximating a linear curve. Although the nature of this trend can

be imagined from row entries in Table 7.1, it is much easier to observe and describe the trends when they are actually plotted as trend lines. Therefore, the second element of the presentation is that of graphical representation of the data. In this and the following chapter, our descriptions of the cohort trends in foreign policy attitudes will be based upon plot diagrams. Each row in the summary table yields one such graph. In addition, when portraying the covariance of pairs of attitudes, plot diagrams may also be used to graphically portray the relationships.

In considering the trends which emerge from the graphs, two rules of thumb for interpretation may be suggested. If a trend line or line segment is horizontal, then it is clear that no age effect is operative; that is, across a number of cohort groups there is a constant level of the attitude. If a trend line has a steep upward slope, then there is a clear linear relationship between the attitude and the processes of generational succession or aging. Divergences from these two types of patterns may be interpreted in terms of the degree to which they conform to the pattern. A smooth curvilinear trend could also yield an interpretable cohort effect. A problem arises, however, when a trend line is not horizontal yet not readily interpretable in linear or curvilinear terms. A cohort trend line with several steep positive and negative slopes following one another indicates that some kind of an age effect is operative; the question becomes one of interpreting this "trend."

Fortunately these kinds of curves do not occur with great frequency in the cohort data or the life-stage data presented in the following chapter. When they do occur, a multiple strategy for interpretation is used. First, the apparent erratic nature of a curve may become less uninterpretable

if one or more obvious "deviant cases" are temporarily ignored. Second, the entire series of slopes may be interpreted as aberrations falling upon a more general trend line. Third, portions of a trend line may be quite interpretable, while the cohort or life-stage influence upon other segments does not yield ready interpretation. Fourth, as will be described in the following paragraphs, hypotheses taken from the relevant research literature may provide interpretations for otherwise confusing trend lines. Finally, we do not rule out the possibility that cohort or life-stage can have an effect upon these foreign policy data which is just not readily definable or interpretable. The task in this and the following analysis chapters is to draw out the most general interpretations and conclusions concerning the influence of age upon political behavior. In most cases this means looking for readily interpretable trends or lack of trends. Linear hypotheses are used to predict the strongest possible form of a relationship, although in some cases curvilinear trends should also be expected. In the case of an erratic trend line which shows that cohort or life-stage has some effect, we may just note the existence of the trend. Historians or psychologists who may favor particular theories of human events and behavior are certainly welcome to apply their theories to these data. Our interest, however, will remain that of investigating the more generally interpretable phenomena.

The third element of this analysis focuses upon the use which will be made of specific hypotheses. One of the advantages of analyzing a longitudinal data set is the ability to verify hypotheses which were based upon cross-sectional data, but which were stated in terms of generational effects. A search of the research literature of foreign policy attitudes

and the generational and aging processes has revealed a number of such hypotheses which may be tested with the data. We have selected some of these hypotheses as an additional mode of portraying the power of the age analysis of political behavior. Where a hypothesis is explicitly formulated in terms of foreign policy attitudes, the test of it is made not only to produce information about foreign policy which is our dependent variable, but more importantly to further understanding of the effects of the generational and aging processes which comprise the independent variable and primary focus of this study.

The test of any hypothesis, of course, depends on the way in which it is operationally stated. The hypotheses which will be tested here come from the writings of other scholars, and, therefore, were not originally stated in terms of our twelve attitude question-sets. Each hypothesis has thus been operationally translated into language which fits these question-sets, and in so doing we have attempted to be as true to the meaning of the contributing scholar as possible. In some cases two opposing verbal hypotheses were located which could be tested with one of the question-sets. Again, the degree to which these data provide evidence that one rather than the other hypothesis is the more valid depends upon the degree to which the reader accepts our operational translation of it.

Furthermore, it should be pointed out that the hypotheses employed here are not to be considered as a complete list of all possible hypotheses concerning generational and aging effects which might be tested. As indicated in Chapter Two, scholars often employ the age variable in research without specifying whether the results are to be interpreted in generational or aging process terms. For the purposes of this analysis, such a proposition has been ignored, although it could be translated into a specific

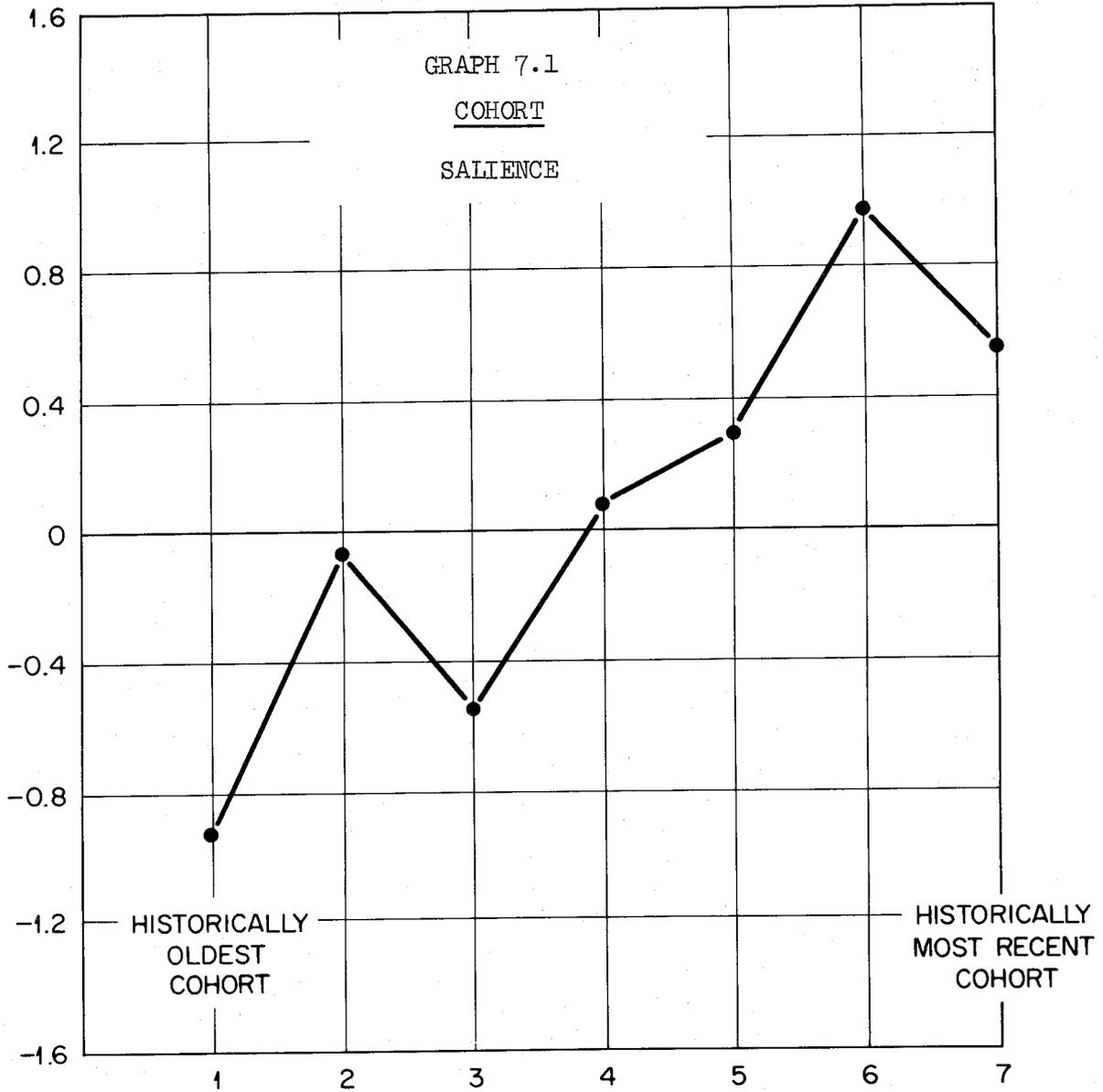
cohort or life-stage hypothesis. Rather, the attempt here has been to select a sample of those hypotheses, propositions, or conclusions which were explicitly stated in generational or aging process terms by the initiating scholar.

Finally, the fourth element in our presentation concerns the manner in which multiple attitude trends will be analyzed. The analysis of attitude pairs presented in Section 7.3 will follow the approach already described, that is, the use of graphs and suggestive hypotheses. In the twelve-attitude profiles of the cohort and life-stage groups in Section 7.4, however, a different mode of analysis is adopted, that of attribute-space analysis. Subsection 7.4.1, therefore, will briefly describe the nature of this kind of analysis, as well as the various decisions which were made concerning the transformation of Table 7.1 into an attribute-space. Subsection 7.4.2 presents the results of the analysis. As pointed out earlier, a parallel mode of organization will be presented for the life-stage effects in Chapter Eight.

## 7.2 Cohort Effects in Single Attitude Trends

Graph 7.1 presents the trend in Saliency for the seven generational cohorts. As pointed out in the introduction, it is clear that the pattern of increasing levels in foreign policy Saliency approaches a linear trend. With only two exceptions, each successive cohort has a higher level of Saliency than the previous cohort. In analyzing a small number of attitude surveys in the immediate post-World War II years, Almond hypothesized that members of the younger generation set a greater priority on international affairs, and that they see international problems as being of greater

ORNL-DWG 68-4954



importance than do members of older generations.<sup>1</sup> Operationally this may be translated into the following hypothesis:

H<sub>1</sub>: The younger (or "newer") the cohort the higher the level of Salience.

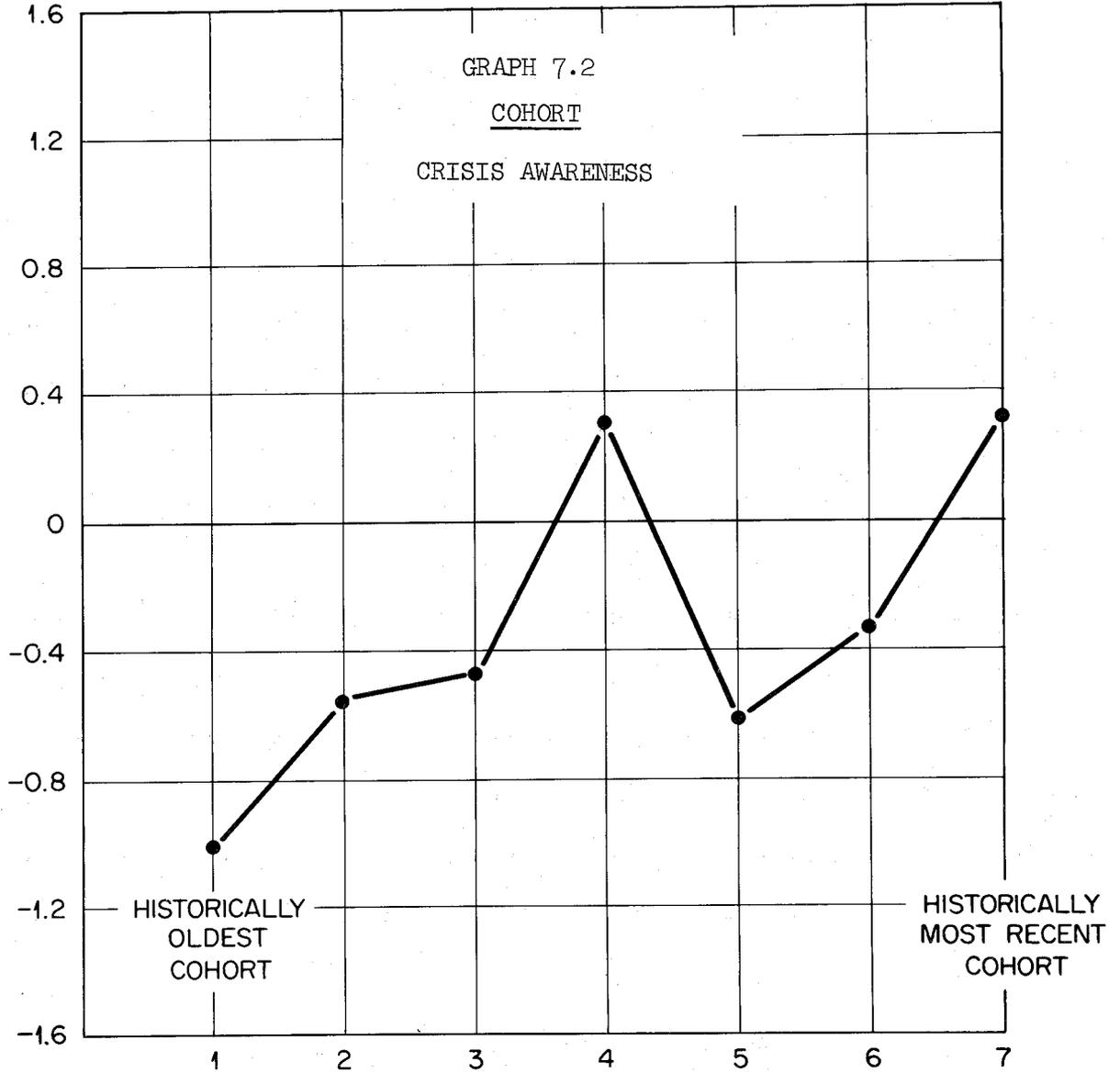
The virtually linear pattern of our data suggests that Almond's hypothesis is valid.

The trend in the attitude labeled Crisis Awareness in Graph 7.2, does not possess the linearity as does that of Salience. However, two subtrends can be noted, each of which indicates increasing levels of this attitude. Almond states that due to a number of factors, including the nature of the emphasis upon foreign policy included in most high school teaching and the nature of the dominance of foreign policy issues in the contemporary environment, the younger generation will be more informed and attentive to

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<sup>1</sup>Gabriel A. Almond, The American People and Foreign Policy, Second Edition. New York, Praeger, 1960, p. 118. The reader will note in the following pages that the preponderance of cohort hypotheses tested with our foreign policy data come from this work by Almond. Two reasons account for this. (1) Although Almond analyzed cross-sectional data, his work stands out as the only one in which the generational explanation is used with any comprehensiveness. (2) Although this work is almost twenty years old (originally published in 1950) it remains as one of the most influential works in the area; for example, it is the most often cited work in public opinion chapters in introductory international relations and foreign policy textbooks. Yet not all of the generalizations which Almond made on the basis of 1946-1950 data hold true for the 1946-1966 period. There is always the need for empirical testing of the impressionistic hypotheses, myths, and common sense notions which we hold concerning the political world. In this sense, the present study is similar to contemporary political behavior research in that both the verification and disverification of commonly held notions about political behavior is an important scientific task. For a report of research which empirically investigates other parts of this significant Almond study, see: William R. Caspary, "The 'Mood Theory': A Study of Public Opinion and Foreign Policy." Department of Political Science, Washington University (St. Louis), mimeographed, 1968.

ORNL-DWG 68-4955



matters relevant to international and foreign policy.<sup>2</sup> There are, of course, a number of different ways in which this kind of awareness or informedness hypothesis could be tested; our data suggest the following formulation:

H<sub>2</sub>: The younger the cohort the higher the level of Crisis Awareness.

A test of this hypothesis yields mixed results. The historically oldest cohort groups do possess the lowest levels of Crisis Awareness, and the youngest cohort does possess the highest level on this attitude. However, the trend between the two is not one of a linear increase. On the other hand, if we could ignore for the moment the "deviant case" represented by the fourth cohort, then the trend in Crisis Awareness more closely approximates a linear positively sloped curve.

Graph 7.3 demonstrates a general downward trend in the question-set which we have labeled Expectation of Crisis Escalation. This attitude, which includes items pertaining to the wars in Korea and Vietnam, tapped the respondents' belief that the wars would escalate militarily. Almond's analysis concluded that the younger generation groups "appear to be more susceptible to crisis panic," which clearly leads to the following hypothesis:<sup>3</sup>

H<sub>3</sub>: The younger the cohort the higher the level of Expectation of Crisis Escalation.

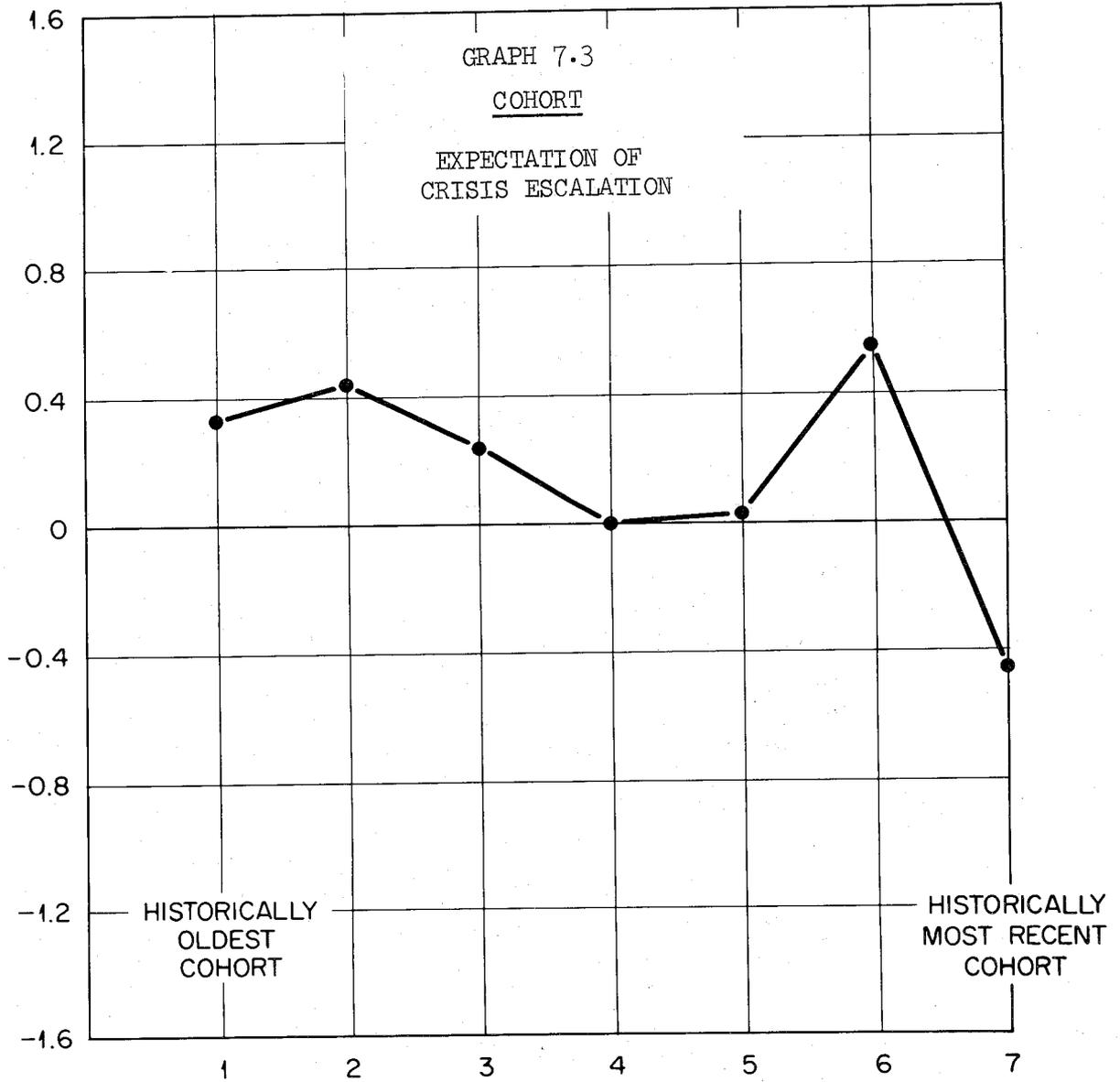
This hypothesis is disverified as the opposite holds true for our data.

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<sup>2</sup>Almond, op. cit., p. 118.

<sup>3</sup>Ibid., p. 120.

ORNL-DWG 68-4956



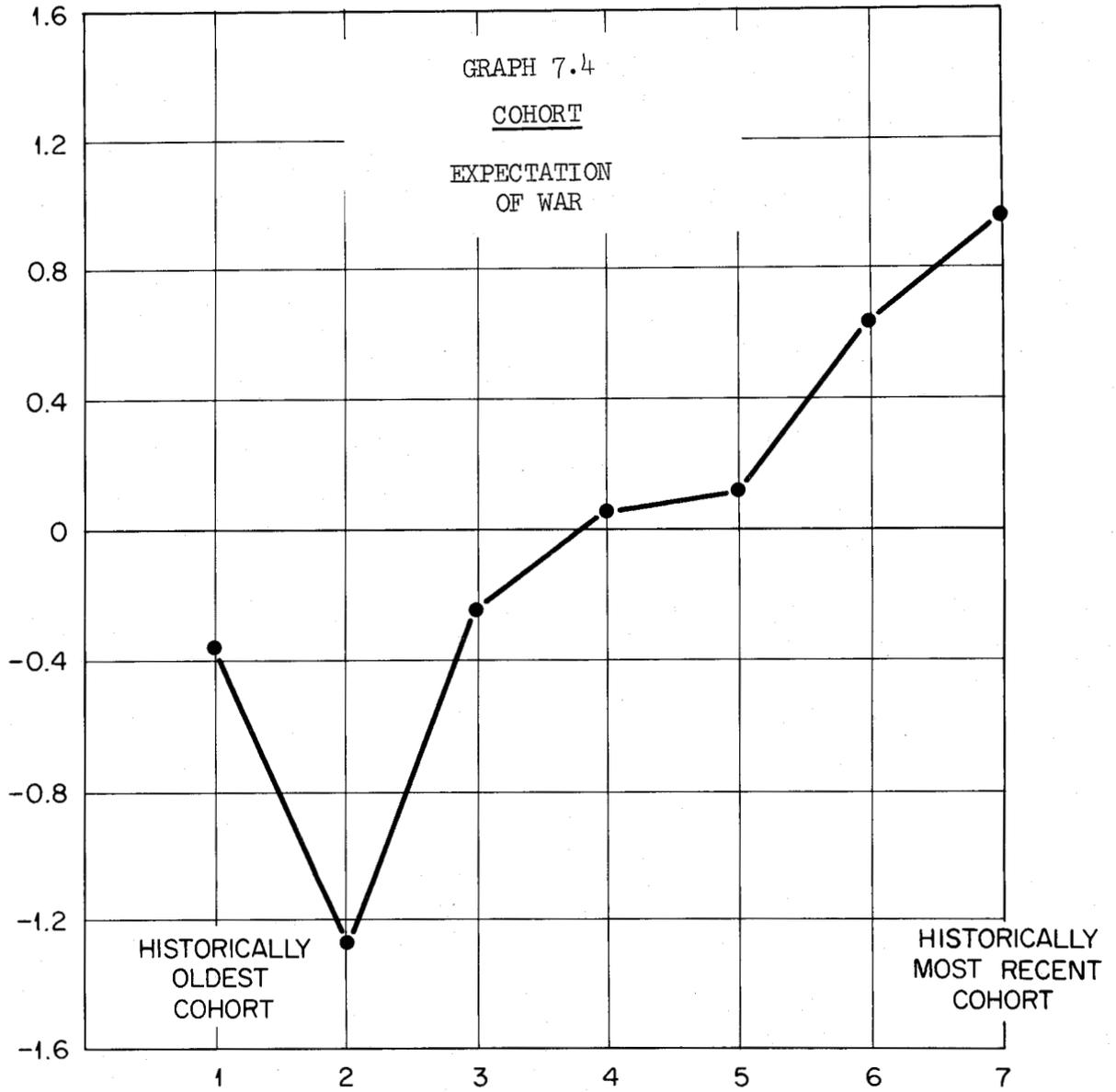
Although the expectation that crises will escalate is going down, the generalized Expectation of War in the future has been increasing, as indicated in Graph 7.4. With one exception, each successive cohort has a higher level of Expectation of War than the previous cohort. Although no specific generationally-stated hypothesis was located, a number of commentators have observed that with the appearance of the Cold War, foreign policy tension and international crisis are no longer to be viewed as unexpected aberrations but rather as the "normal" level of life in the post-World-War II world. It might be hypothesized, therefore, that the younger a person is when he appears on this kind of scene, the greater will be his expectation that war will come:

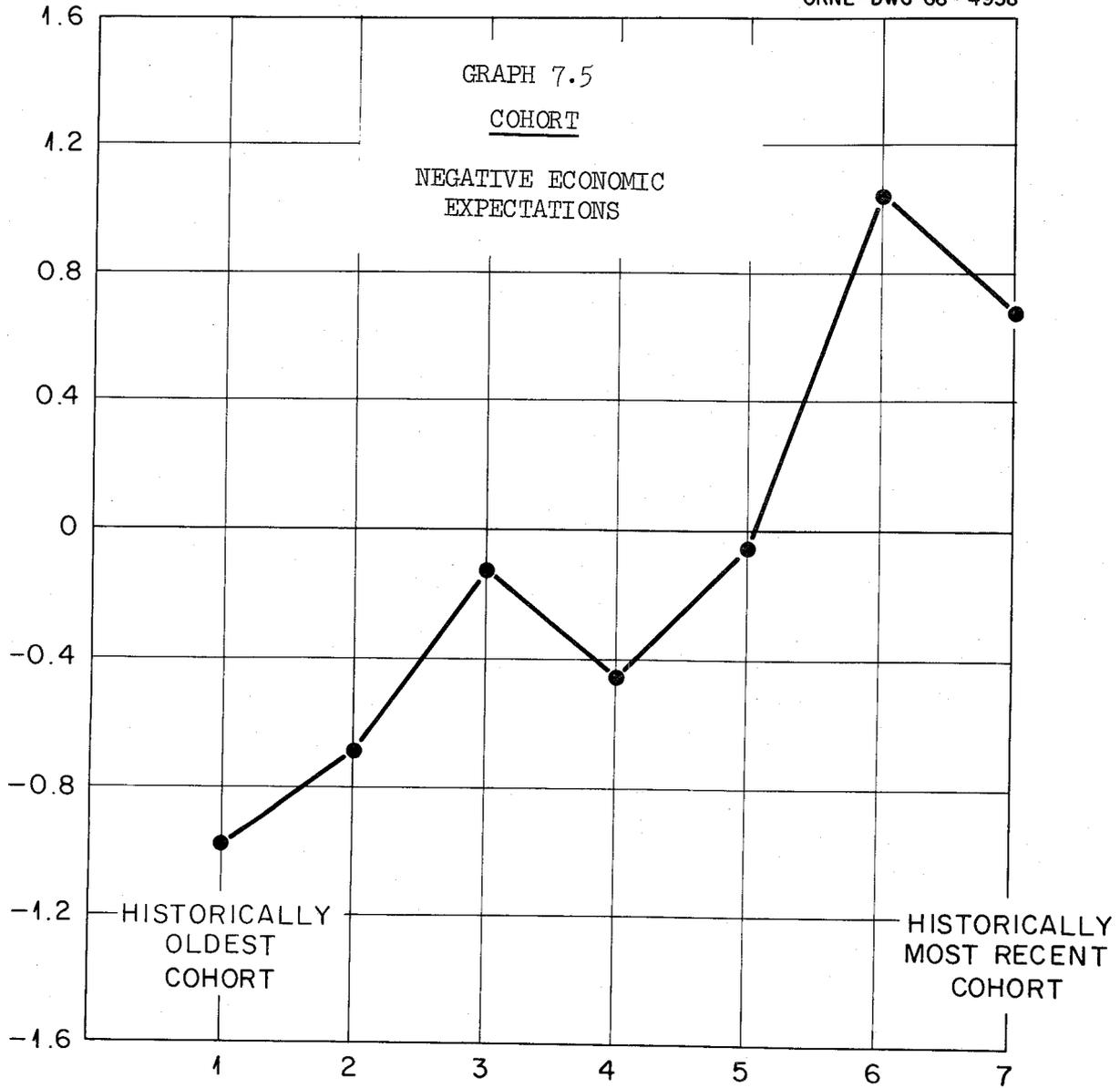
$H_4$ : The younger the cohort the higher the level of Expectation of War.

Our data verify this hypothesis with a trend which approximates a linear curve. It may be concluded, therefore, that the pressures and continuing crises of the Cold War have differentially affected each new generational group as it was socialized into the Cold War period.

Graph 7.5 describes the trend in the one attitude included in our data base which does not refer to foreign policy, that of Negative Economic Expectations. As pointed out in Chapter Four, this item was included to test the possibility that negative expectations concerning foreign policy events might be positively associated with a generalized pessimism, a generalized feeling of negative expectation. This hypothesis was formulated in 1949 by Sheatsley who found in a cross-sectional study that "certain types of individuals just naturally expect the

ORNL-DWG 68-4957





occurrence of unhappy events."<sup>4</sup> To some extent, Sheatsley argues, the picture of a nation at war does not coincide with a picture of a nation in economic trouble, and thus the covariance of these two kinds of attitudes may represent more of an underlying pessimism than distinct evaluations of two separate policy domains.

Whether or not Sheatsley's informal causal analysis is valid, his hypothesis can be tested in the present study with longitudinal data:

H<sub>5</sub>: Increasing levels of Expectation of War are positively associated with increasing levels of Negative Economic Expectation.

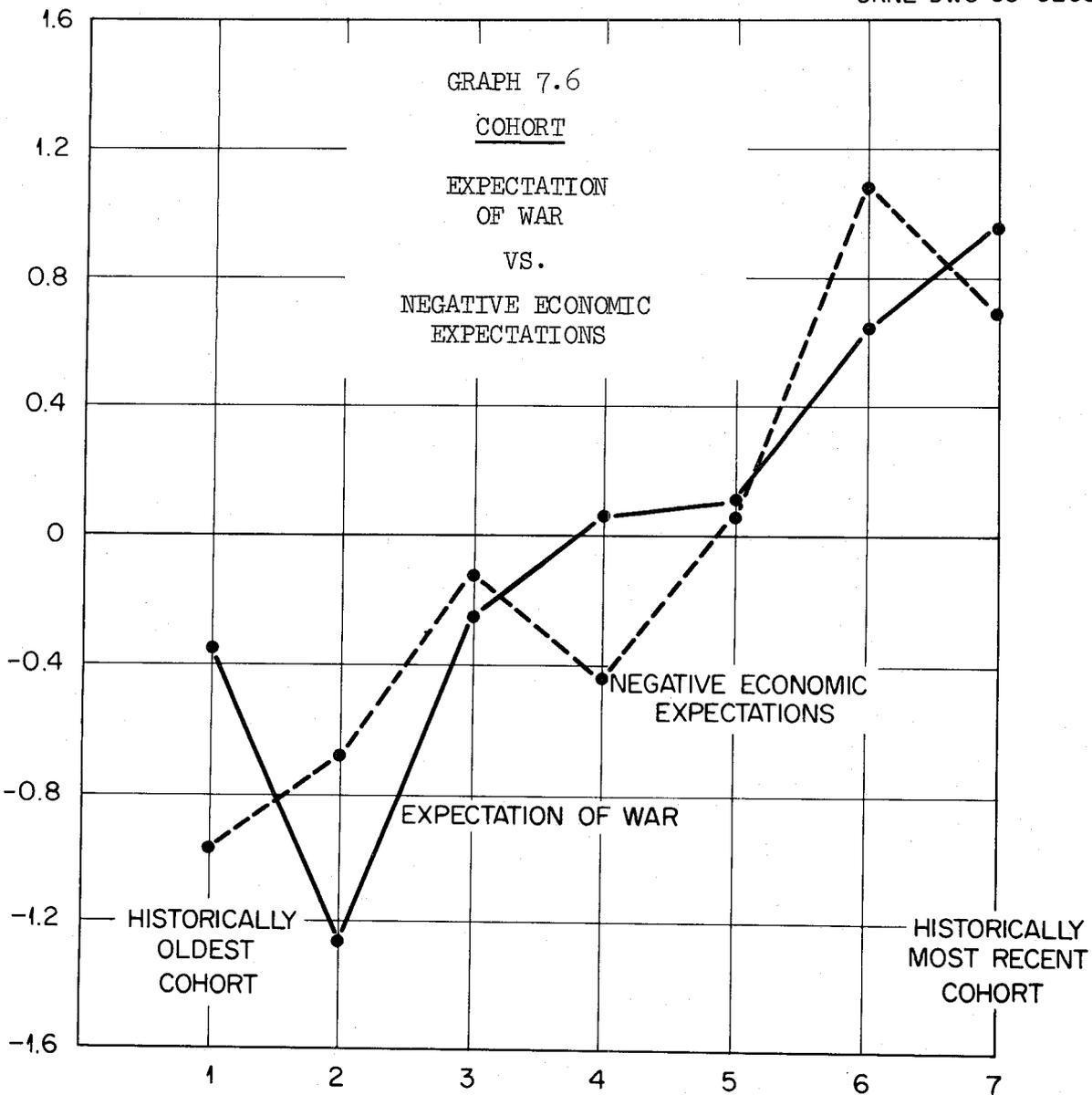
Graph 7.6 demonstrates that this hypothesis is generally valid. Although the relationship is not as strong for the older cohorts as for the newer cohorts, both attitudes may be described by linear trend lines, both of which have approximately the same degree of upward slope.

Graph 7.7 presents the responses to a series of questions of the type: If there should be a nuclear war, do you think your own local area is a likely enemy target? As can be seen, there is no clear trend in these data. There is a relatively large amount of fluctuation on the part of the older cohorts; the more recent cohorts have a more stable pattern of responses, stabilized at the higher levels of Expected Local Nuclear Danger. This question-set may be used to provide a further test of Almond's finding that the younger generation is more susceptible to crisis panic (originally tested with hypothesis H<sub>3</sub>):

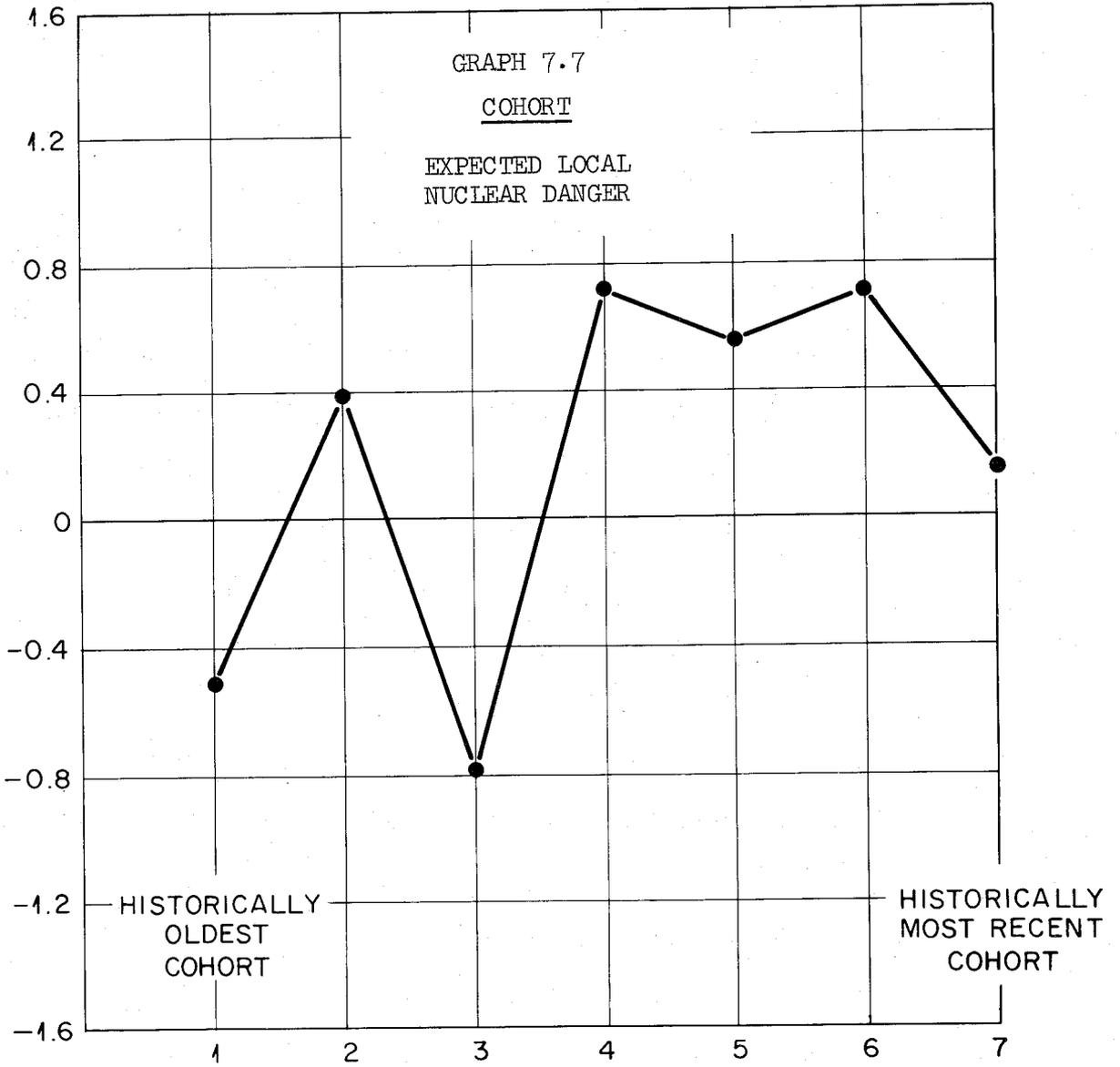
H<sub>6</sub>: The younger the cohort the higher the level of Expectation of Local Nuclear Danger in the event of nuclear war.

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<sup>4</sup>Paul B. Sheatsley, "Expectations of War and Depression," Public Opinion Quarterly, 13 (1949), pp. 685-686.



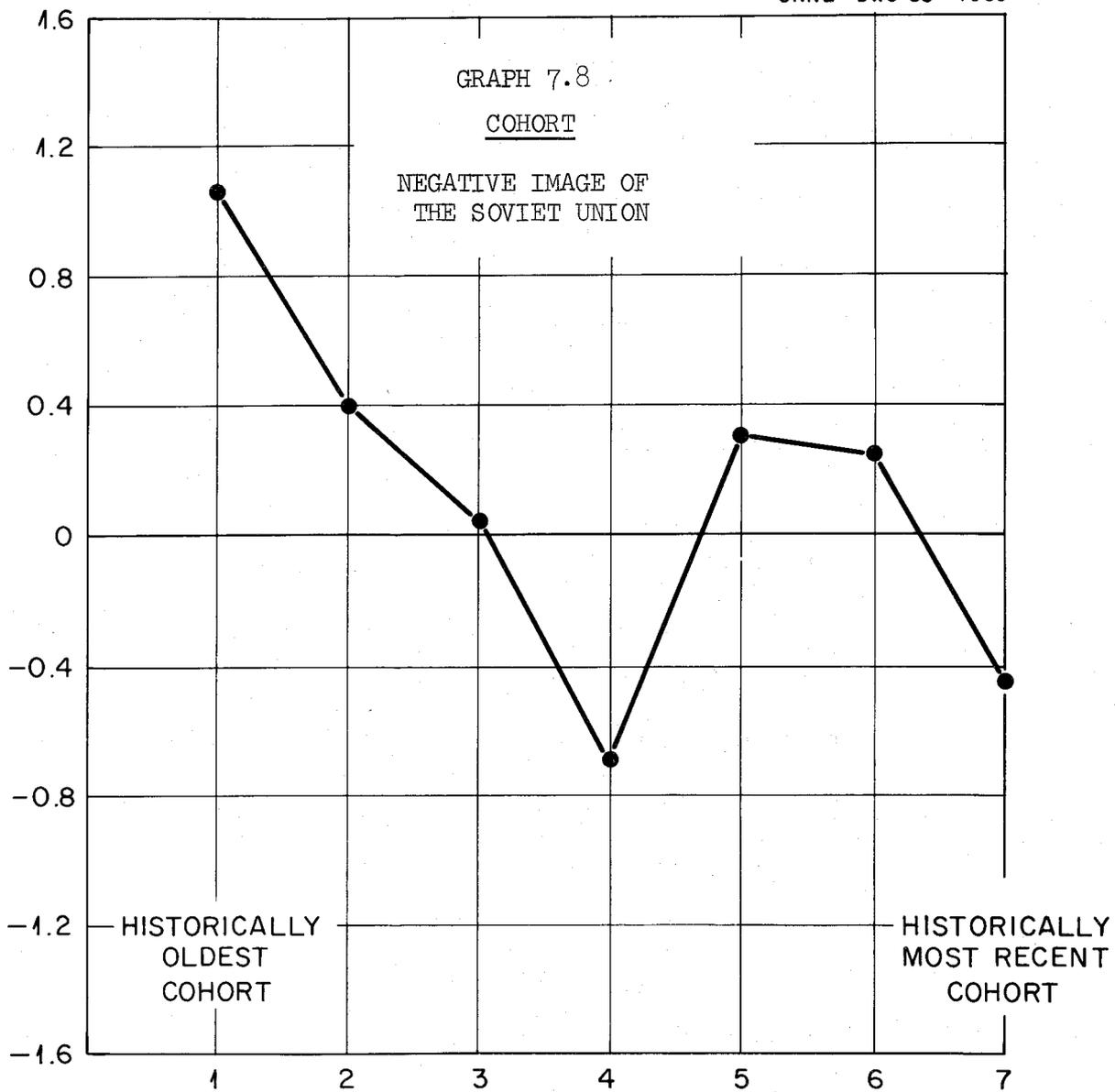
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When this hypothesis is tested against Graph 7.7, the results, while generally positive, are mixed. The younger cohorts generally do have higher levels of expectation in this attitude, yet the trend is not linear. Considering the third cohort as a deviant case goes a long way in making the trend closer to a linear one. However, we should also point out that the most recent generational group, that is, the seventh cohort, indicates the possible emergence of a downward trend.

A very interesting generational trend is found in Graph 7.8, Negative Image of the Soviet Union. For this attitude, the level of negative image is quite high for the historically older cohorts, but steadily goes down through the fourth cohort group. At this point, the trend line increases sharply and then again begins a downward slope. Although the trend is not linear, the following plausible generational explanation may be appropriate. The decline in Negative Image of the Soviet Union occurs through that cohort which was approximately twenty years of age in 1930, the beginning of the Depression. It may be said that individuals socialized during this time held a relatively positive image of the Soviet Union especially in comparison with the apparent inability of the American system to cope with economic disaster. Certainly this was the time when many intellectuals as well as laboring persons endorsed communist ideology. The concept of generations would predict, then, that this relatively favorable image of the Soviet Union would find its way into the perceptions of the Soviet Union during the years of the Cold War. The marked increase in Negative Image of the Soviet Union corresponds to that cohort which was about twenty years old at the time of the signing of the Hitler-Stalin pact, an event which was iconoclastic in nature for many whose image of the Soviet Union had been favorable.

ORNL - DWG 68-4960



In his analysis, Almond concluded that the younger generational groups tend to give Russia "the benefit of the doubt" in matters of military and foreign affairs.<sup>5</sup> His hypothesis may be formulated as follows:

H<sub>7</sub>: The younger the cohort the lower the level of Negative Image of the Soviet Union.

The data show that this hypothesis is valid for the first half of the trend line, and then, after the increase as described above, for the second half of the trend line.

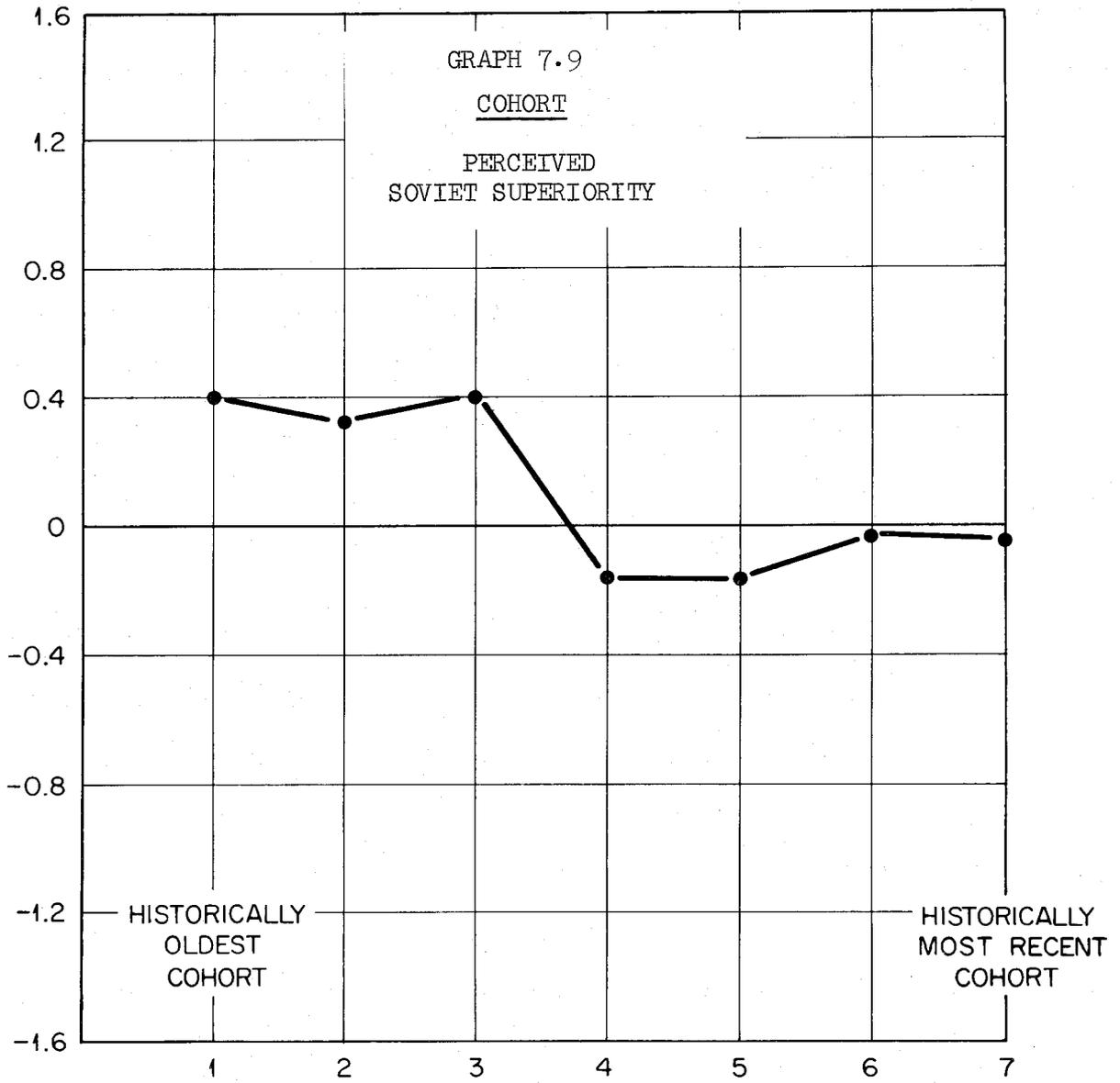
The trend line for Perceived Soviet Superiority in Graph 7.9 is fairly horizontal, indicating little variation among the cohorts. An enduring change in this attitude can be noted, however, beginning with the fourth cohort group. A generational hypothesis coming from the literature of American party identification research may be applicable here. Lubell found that there are economic class differences among supporters of the Democratic party which relate to the experiences of the Depression. Unlike many Democrats socialized prior to and during the Depression, many post-Depression Democrats come from middle and high income groups. Lubell hypothesizes that these younger, more affluent Democrats can accept "big government" involvement in the economy, because they came of age at a time when the notion of such activity was already established as legitimate by the political and economic system.<sup>6</sup> In other words, Lubell's hypothesis predicts a greater acceptance of policy changes on the part of those who are socialized after the institution of the policy than on the part of those who were socialized before or during the events which brought about the change.

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<sup>5</sup>Almond, op. cit., p. 120.

<sup>6</sup>Samuel Lubell, The Future of American Politics, Second Edition. New York, Doubleday, 1956, p. 63.

ORNL-DWG 68-4961



As applied to the data concerning Perceived Soviet Superiority, we may hypothesize that those persons who were socialized before the Soviet Union was a stable, active, and powerful member of the international community see the Cold War accomplishments of that country as dramatic achievements especially as compared to the United States whose power is perceived, relative to these achievements, to have declined. On the other hand, those persons who were socialized at a time when the power of the Soviet Union was already established do not necessarily perceive a relative decline in American power and position. Thus the Cold War perceptions of the older generations might be expected to include that of the Soviet Union as relatively superior to the United States.

H<sub>0</sub>: The younger the cohort the lower the level of Perceived Soviet Superiority.

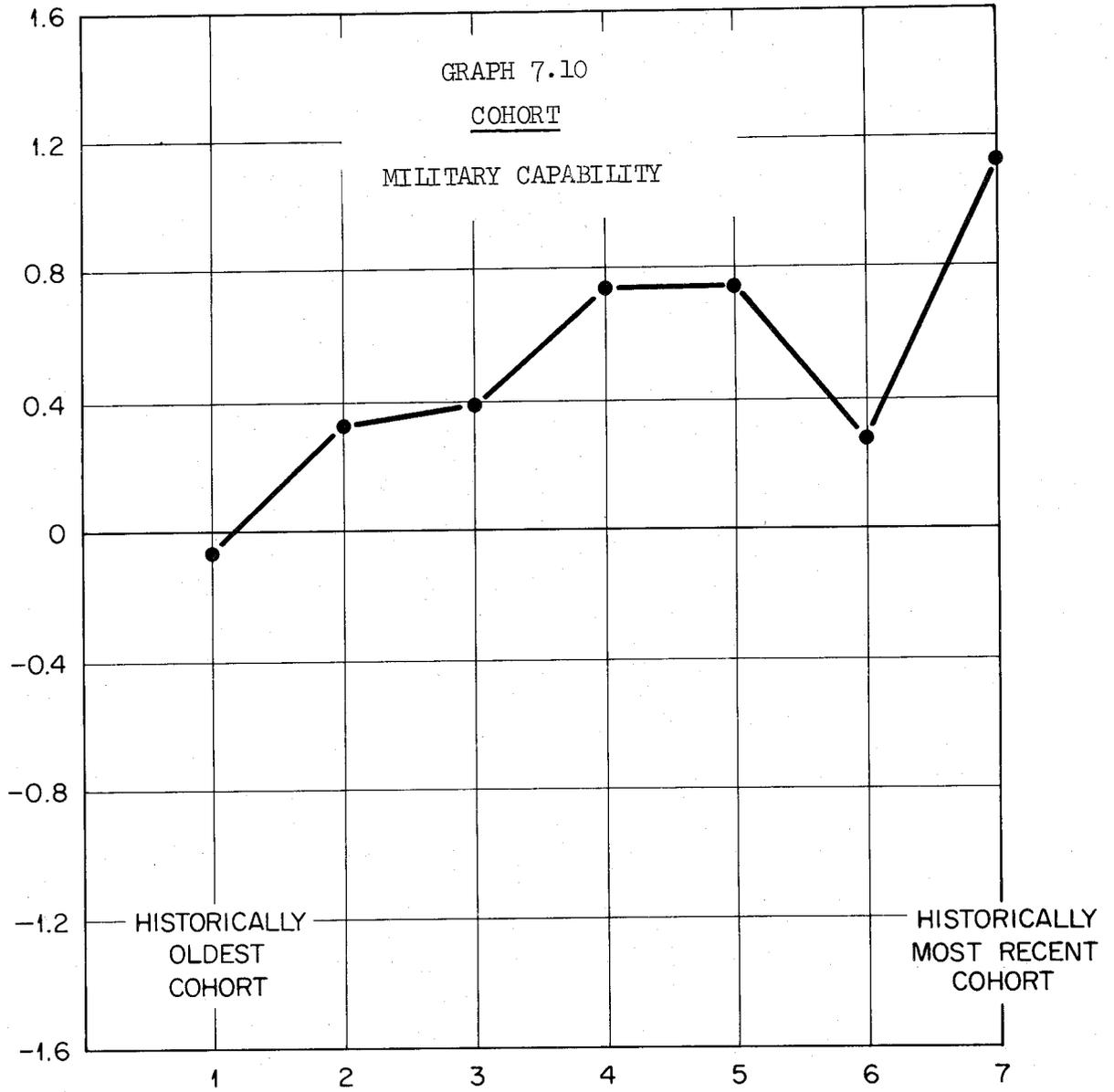
As Graph 7.9 illustrates, this hypothesis is generally valid. The separation of the cohort groups into higher and lower levels takes place with that cohort which was about twenty years old in 1930, a time somewhat after the chaos highlighted by the American press during and immediately after the Russian civil war and Allied intervention in that war.<sup>7</sup>

The data in Graph 7.10 indicate increasing levels of endorsement of a policy of maintaining and/or increasing Military Capability. With the exception of the sixth cohort, the trend approximates a linear curve. In a cross-sectional study of various orientations toward foreign affairs, Farris concluded that the oldest age group in his data was the most jingoistic, that is, most in favor of large armament programs and military

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<sup>7</sup>For an account of this period in Soviet-American relations, see: D. F. Fleming, The Cold War and Its Origins, Volume I. New York, Doubleday, 1961, Chapter II ("Russian Civil War and Western Intervention"), pp. 16-35.

ORNL-DWG 68-4962



excursions into other lands. Although his data were cross-sectional, Farris decided on the basis of certain statistical tests that a generational effect was operative.<sup>8</sup> Farris' hypothesis may be translated into the language of our own data as follows:

H<sub>9</sub>: The older the cohort the higher the level of support for maintaining and/or increasing American Military Capability.

As the data show, this hypothesis is disverified, as the trend goes in the opposite direction.

In Graph 7.11 the trend for another policy orientation, Advocacy of War, is given. The levels of endorsement of this kind of policy are moderately high for the two oldest cohorts, but then decrease. The lowest levels of Advocacy of War are given by those cohorts which were approximately twenty years of age during the relative international calm following World War I, but preceding the initial military actions of Italy and Germany in Ethiopia and the Rhineland. Subsequently, there is a continuing increase in the level of Advocacy of War.

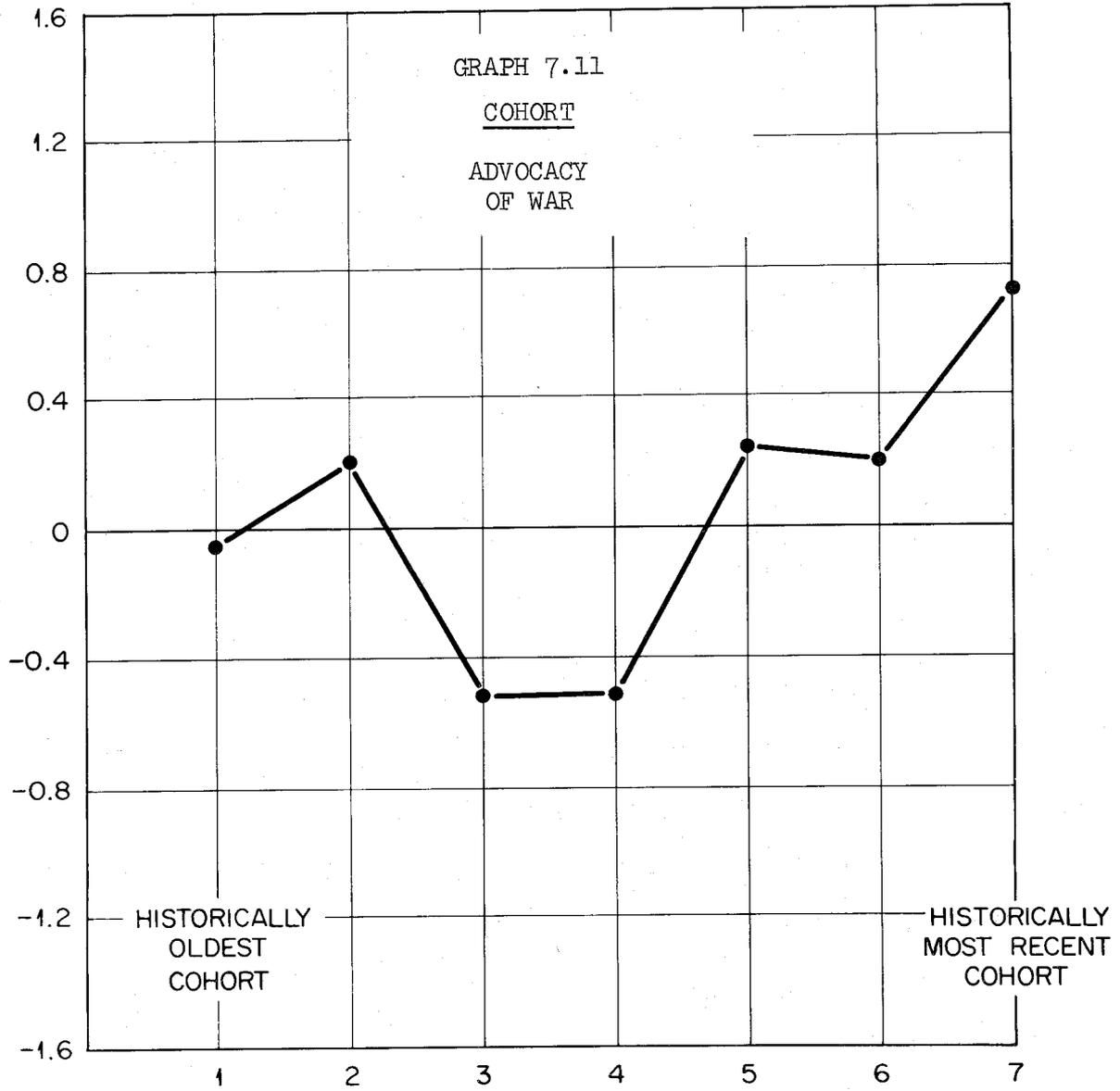
In his study, Almond states that members of the younger generation tend to rely on other than military force as the preferred means of protecting American national security. He states also that these younger persons possess the greatest opposition to a policy of preventative war. In the study cited above, Farris provides data consistent with the "other end" of Almond's hypothesis with the observation that the older generational groups are characteristically most in favor of jingoistic policies.<sup>9</sup>

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<sup>8</sup> Charles D. Farris, "Selected Attitudes on Foreign Affairs as Correlates of Authoritarianism and Political Anomie," Journal of Politics, 22 (1960), p. 61.

<sup>9</sup> Almond, op. cit., pp. 118-120; Farris, loc. cit.

ORNL-DWG 68-4963



These two findings may be stated as:

H<sub>10</sub>: The younger the cohort the lower the level of Advocacy of War.

This hypothesis is only partially valid. As in Farris' data, the oldest cohorts are more in favor of this policy than the two cohorts which immediately follow; however, among the younger cohorts there is an upward trend rather than the downward trend which Almond hypothesizes.

The Military Extension question-set, presented in Graph 7.12, encompasses the policy of collective security in the sense of American participation in military alliances (e.g., NATO), as well as the bilateral extension of American military resources to other countries. With the slight exception of the oldest cohort, our data show a remarkably clear upward linear trend in the attitudinal endorsement of this policy orientation.

Almond has summarized the historical experiences of older generational groups as being skeptical about the effectiveness of collective security arrangements, probably caused by the collapse of the League of Nations and reinforced by the inability of the United Nations to prevent armed conflicts.<sup>10</sup> Our hypothesis would therefore be:

H<sub>11</sub>: The older the cohort the lower the level of support for Military Extension.

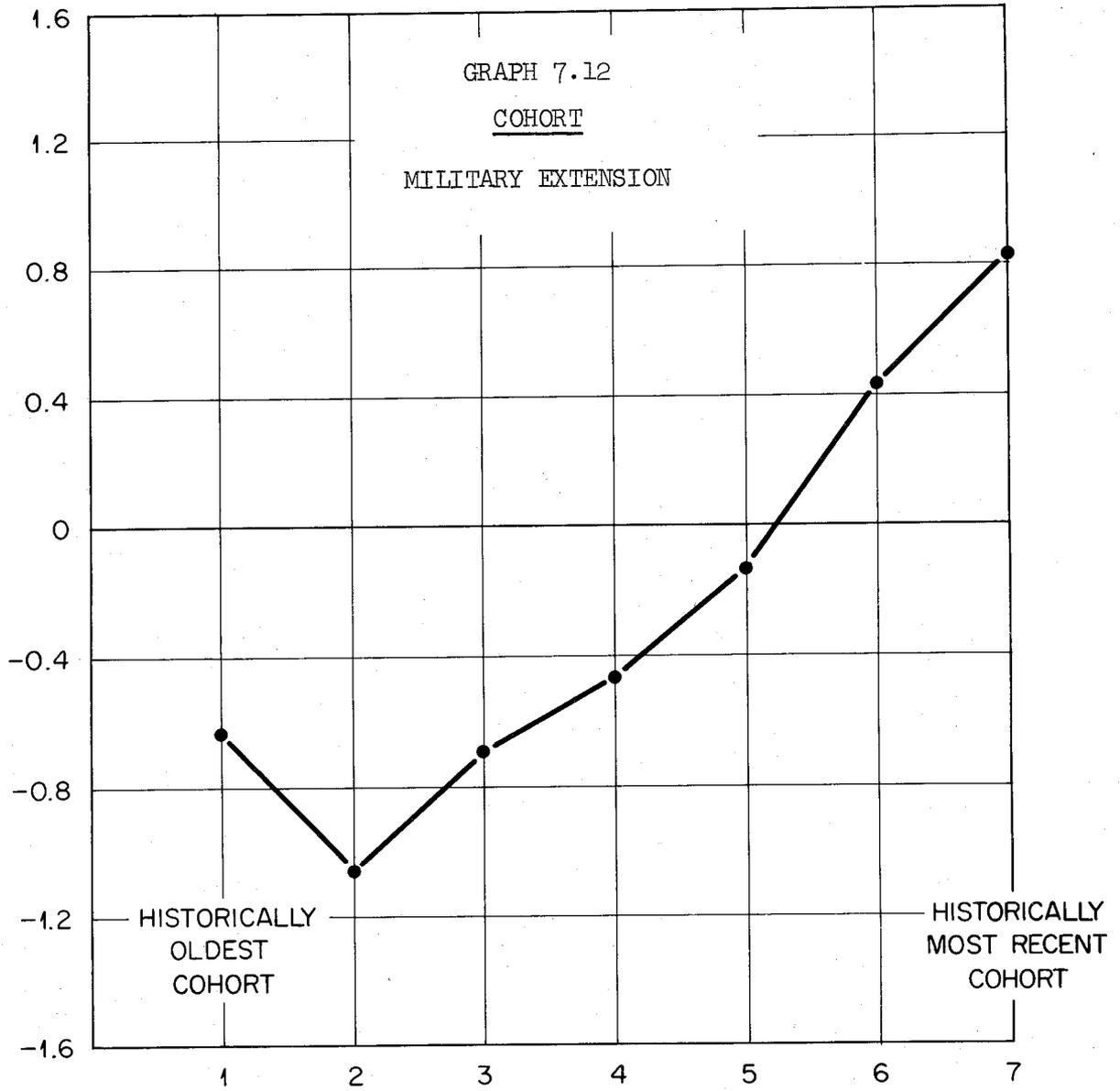
Our data overwhelmingly support this hypothesis.

Graph 7.13 portrays our final question-set, Non-Military Extension, which encompasses attitudes toward various forms of foreign aid. There appear to be at least two trends here, and perhaps the beginning of a

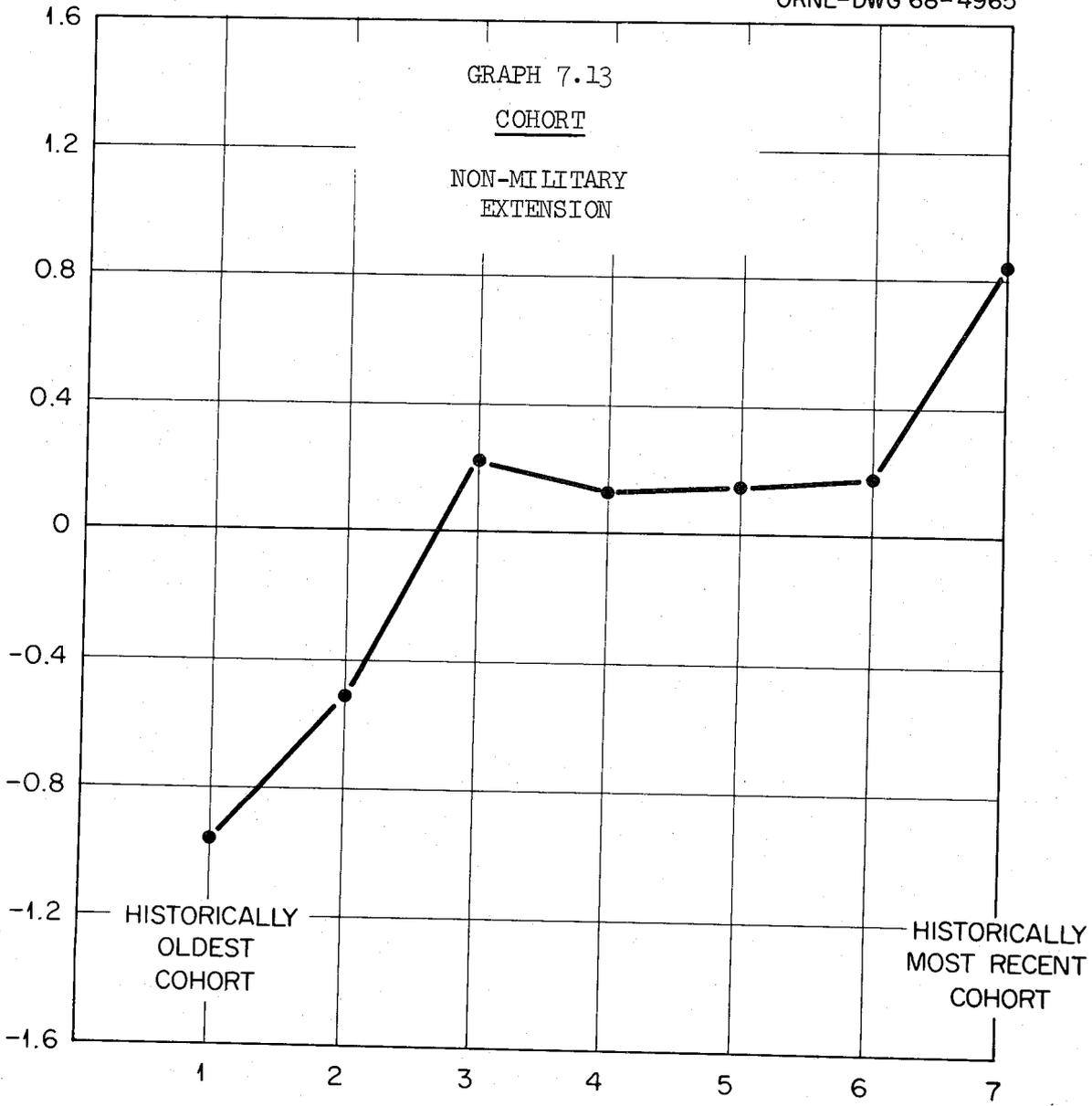
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<sup>10</sup> Almond, op. cit., p. 118.

ORNL-DWG 68-4964



ORNL-DWG 68-4965



third. Starting at a relatively low level of support, endorsement of this policy orientation increases through the third cohort, and then remains fairly constant. With the youngest cohort, however, the trend again begins to rise with approximately the same degree of upward slope which characterized the earlier trend. In his analysis, Almond found that members of the younger generations "displayed a greater generosity with respect to foreign economic policy."<sup>11</sup> This finding is somewhat complemented by the expectation that older generational groups would be less likely to endorse Non-Military Extension policies as extrapolated from Farris' data on jingoism.

H<sub>12</sub>: The younger the cohort the greater the support for Non-Military Extension.

Our data show that this hypothesis is basically a valid one. Although the trend is not linear, and there is a period of no increase in support, it is generally true that the succession of generations is accompanied by increases in levels of support for this policy orientation.

### 7.3 Cohort Effects in Multiple Attitude Trends

While the primary burden of our research is to isolate attitudinal trends which are related to the age variable, as we have attempted to do in the previous section, both the conceptual thrust of generational analysis and the methodological approach of cohort analysis allows us to go a step further and observe trends in the covariance of two or more attitude question-sets. The nature of our data, however, preclude the making of anything but the most exploratory kinds of empirical

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<sup>11</sup>Ibid., pp. 119-120.

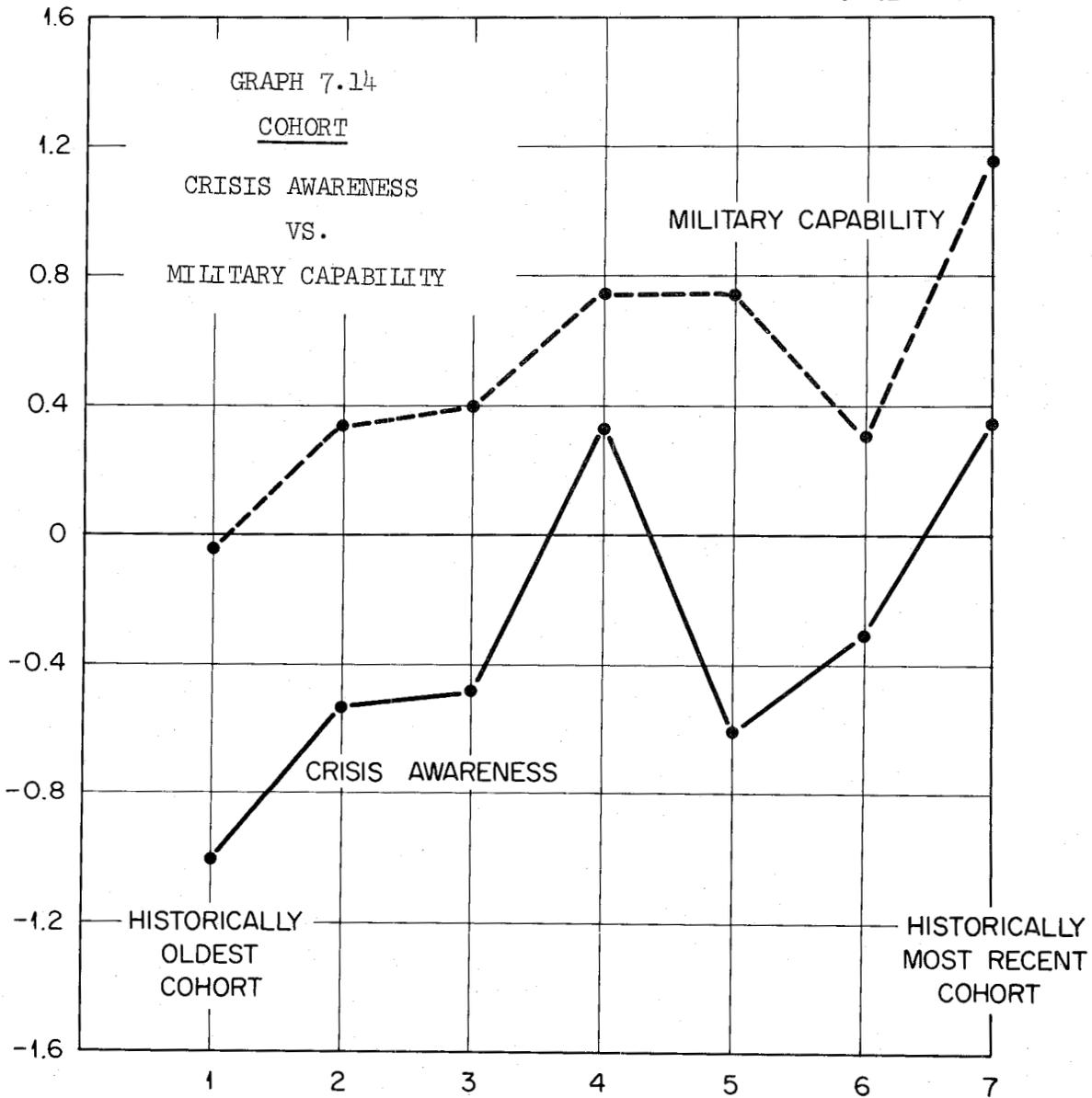
statements concerning the bivariate or multivariate trends which may be characteristic of attitudes toward foreign policy. Ideally, such an analysis would require the appearance of each of the twelve (or more) attitudes on every one of our surveys. We could then calculate the correlation between any given pair of attitudes, and trace that correlation over time.

As pointed out in Chapter Five, the data base for our study is such that for most of our sampling points more than one survey has been required to provide measurements on the twelve question-sets. Therefore, correlational analysis such as described above cannot be employed. An alternative procedure, however, is one in which the univariate attitude trends for pairs of attitudes are plotted on the same graph. Such a procedure would at least allow us to observe the longitudinal relationship of these attitude pairs. When such a strategy has been adopted, however, there remains somewhat of a logistic problem: that of deciding upon which pairs to graphically portray. Twelve items taken two at a time yield sixty-six pairs; if we were interested also in attitudinal triads, twelve items taken three at a time yield two hundred and twenty comparisons!

Since the focus of this study is upon the effects of the independent variable, age, rather than upon the behavior of the dependent variable, foreign policy attitudes, it is not necessary to consider all these possible pairs and other combinations of attitudes. The analysis in the previous section demonstrated that generational trends can be empirically observed in various instances of a class of political behavior, namely, attitudes toward foreign policy. Similarly, only a few examples of the multiple attitude trends which can be documented through cohort analysis

are portrayed in the present section. Future research which focuses primarily upon foreign policy behavior would do well to include the hundreds of possible comparisons described in the preceding paragraph. The examples of trends in attitude pairs which have been chosen for presentation, therefore, were chosen as being illustrative of the potential of this mode of analysis, rather than exhaustive of the substantive information concerning foreign policy attitudes which the data might yield. Examples of inherent interest have also been included.

The first two examples portray illustrations of positive and negative relationships. Graph 7.14 presents the cohort trends in Crisis Awareness and Military Capability. Observation of this graph reveals a remarkable similarity in the two trend lines. As the awareness of crises increases, so does support for the policy of maintaining or increasing American military capability. From a psychological standpoint, this pair of attitudes offers a concise example of a cognitive or perceptual variable linked with an action or behavior predisposition. The similarity of the two curves could quite easily be interpreted in terms of cause and effect or stimulus and response. While such a causal inference might accurately describe the processes which have produced these curves, our data cannot provide the statistical basis for such an inference. However, the fact that cohort analysis allows us to locate a relationship of covariation which is as striking as this one is in itself a useful discovery. Certainly the hypothesis which states that "support for governmental policies concerning military capability is contingent upon levels of crisis awareness" deserves a great deal of attention in future research.

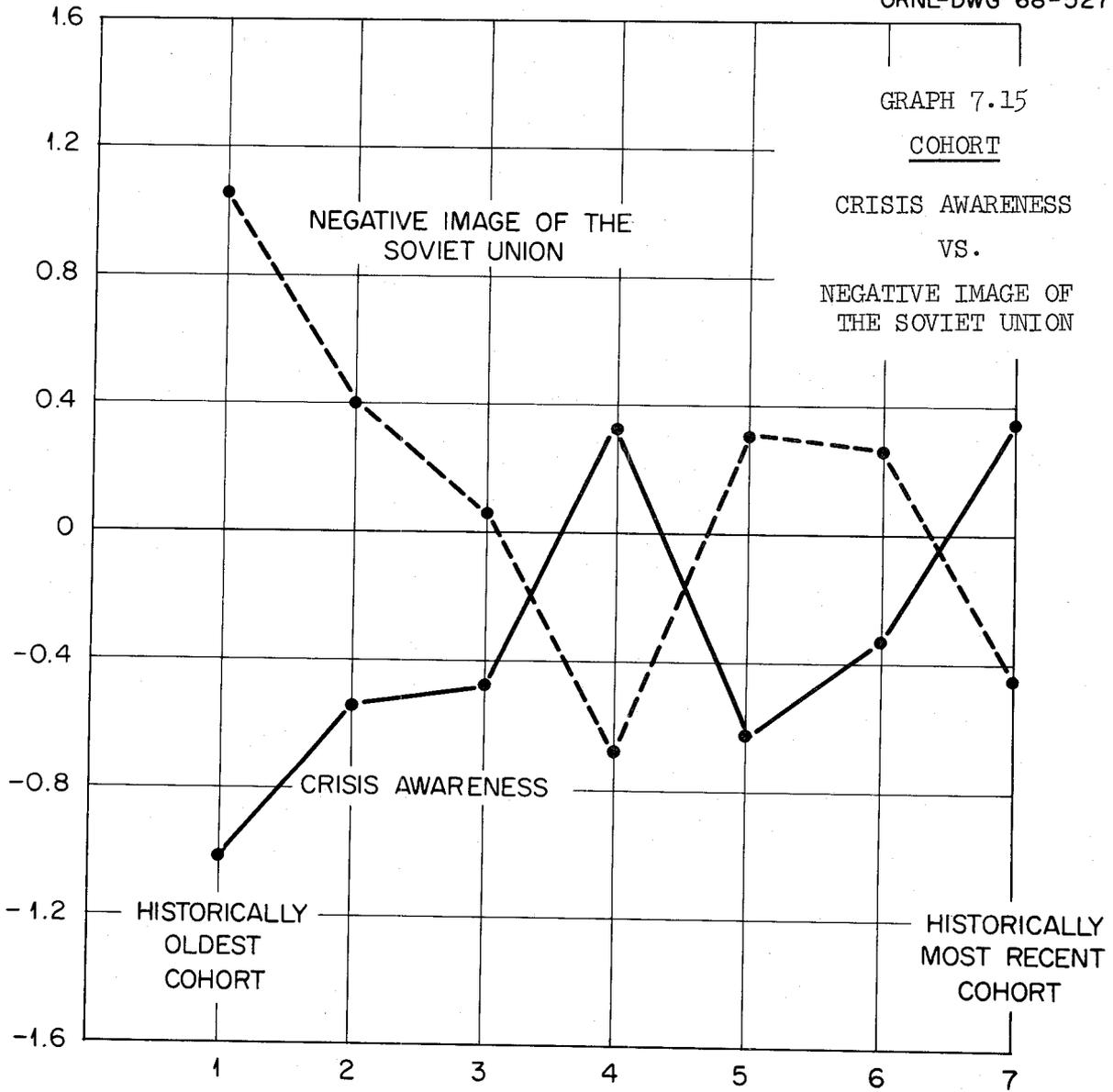


Graph 7.15 gives an illustration of the opposite situation wherein Crisis Awareness is plotted against Negative Image of the Soviet Union. In this graph, as in the previous one, the pattern of covariation strongly suggests, but does not "prove," a causal hypothesis which can be stated in psychological terms. If Crisis Awareness can be used as a measure of the knowledge one has of the domain of foreign policy, and if Negative Image of the Soviet Union is conceptualized as one measure of fear, then it follows that the greater the ignorance (i.e., the lower the level of Crisis Awareness) the greater the fear. Our data amply demonstrate that such a relationship may well have been operative over the course of the Cold War. Certainly there is evidence in many areas of the relationship between ignorance of an object and one's fear of it.

The reverse causal relationship may also explain the negative association between these two attitudes. The greater the fear of an object, the greater the avoidance of it. Both of these plausible hypotheses suggest that the longitudinal patterns which cohort analysis has revealed here are interpretable in light of existing psychological concepts, concepts which more often than not have been developed in the context of cross-sectional measurements of somewhat unique samples (e.g., college sophomores).

The decision concerning further examples of multiple attitude trends was guided to some extent by hypotheses from the literature. Although such hypotheses stated in generational terms are rare, we were able to find two which can be tested with our data. In a study of civilian morale during World War II, Lewin found that individuals socialized during the American Depression suffered from low levels of morale, as well as generalized losses of felt efficacy in the ability of individuals to affect

ORNL-DWG 68-5271



their society.<sup>12</sup> In other terms, these Depression influenced persons became relatively passive with respect to the social environment. One test of this proposition may be made in terms of attitudes concerning the environment of foreign policy. Two of our question-sets are "extension" in nature; that is, they embody the belief that American foreign policy should be oriented toward activity in international affairs: Military Extension and Non-Military Extension. Lewin's observations predict a U-shaped curve in which the middle generational groups in our data, those socialized in the 1930's, would possess lower levels of endorsement of these two policy orientations, each of which express manipulative approaches to the environment of foreign policy. Cohorts both prior and subsequent to the groups affected by the Depression would be expected to have higher levels of support for these policies.

H<sub>13</sub>: The middle cohorts in our analysis have the lowest levels of support for both Military and Non-Military Extension.

In his study of the foreign policy attitudes of different generational groups, Almond concluded that the younger cohorts are more internationalist than the older cohorts.<sup>13</sup> One longitudinal test of such a hypothesis could be made with the same two question-sets indicated for the Lewin hypothesis, since both attitudes contain elements of activism in the international environment.

H<sub>14</sub>: The younger the cohort the higher the levels of both Military and Non-Military Extension.

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<sup>12</sup>Kurt Lewin, "Time Perspective and Morale," in Goodwin Watson (ed.), Civilian Morale. New York, Society for the Psychological Study of Social Issues, 1942, p. 48.

<sup>13</sup>Almond, op. cit., p. 118.

As Graph 7.16 demonstrates, our data support Almond's rather than Lewin's hypothesis. For both extension attitudes, and especially for Military Extension, the longitudinal trend is toward higher levels of endorsement of these policies. Lewin's hypothesis, however, might help explain the leveling of the Non-Military Extension curve. Although the middle or Depression cohorts do not have the lowest levels of support for this policy, as Lewin's position predicts, their hypothesized passivity with respect to the social environment "ended" an upward trend which then began again with the most recent cohort. Generally speaking, however, it does not appear as if the Depression experience, as Lewin has conceived of it, has severely affected these attitudes toward foreign policy. On the other hand, a re-examination of Graph 7.11, Advocacy of War, indicates that those cohorts which were between twenty-five and thirty-five years of age during the Depression "interrupt" an upward trend and give the lowest levels of support for such a policy. Earlier we suggested that these data might be influenced by the years of relative international tranquility subsequent to World War I. Lewin's hypothesis, however, might provide additional understanding of this trend.

#### 7.4 Multiple Attitude Cohort Profiles

In the previous two sections an attempt has been made to trace generational trends in foreign policy attitudes by observing the attitudes themselves, individually and in pairs, as they vary across the seven cohort groups. In order to observe generational trends across all twelve attitudes we could continue the kind of graphical analysis already used by plotting twelve separate lines on a single graph. This approach

would be highly unsatisfactory, however, as the graph would become quite unreadable. A more efficient approach would be to "reverse" the observations and look at the cohorts across all attitudes rather than look at attitudes across all cohorts. In other words, we ask the question "What is the profile of a given cohort across the twelve question-sets which comprise our data base?"

In order to answer this kind of question a variant of property-space analysis known as attribute-space analysis will be employed.<sup>14</sup> Attribute-space analysis allows us to indicate, for a given group, the profile of dominant attributes of the groups as constructed from the original data presented in Table 7.1. Operationally, the attitudes for each group which have been given "high" and "low" levels of support by the group are abstracted from the tabular data. The product of this kind of analysis is given in Table 7.2. The first subsection will describe the processes and decisions by which the attribute-space was constructed from Table 7.1; the second subsection will describe the multiple attitude cohort profiles which the attribute-space defines.

#### 7.4.1 Construction of the Attribute-Space

An attribute-space is a verbal abstraction from a quantitative data set in which the predominant attributes of a given class of objects are portrayed. In the present case, the objects are cohort groups and the goal of this phase of the analysis is to parsimoniously describe the predominant attitudinal attributes of the cohorts. The data presented in

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<sup>14</sup>Allen H. Barton, "The Concept of Property-Space in Social Research," in Paul F. Lazarsfeld and Morris Rosenberg (eds.), The Language of Social Research. Glencoe, The Free Press, 1955, pp. 40-53.

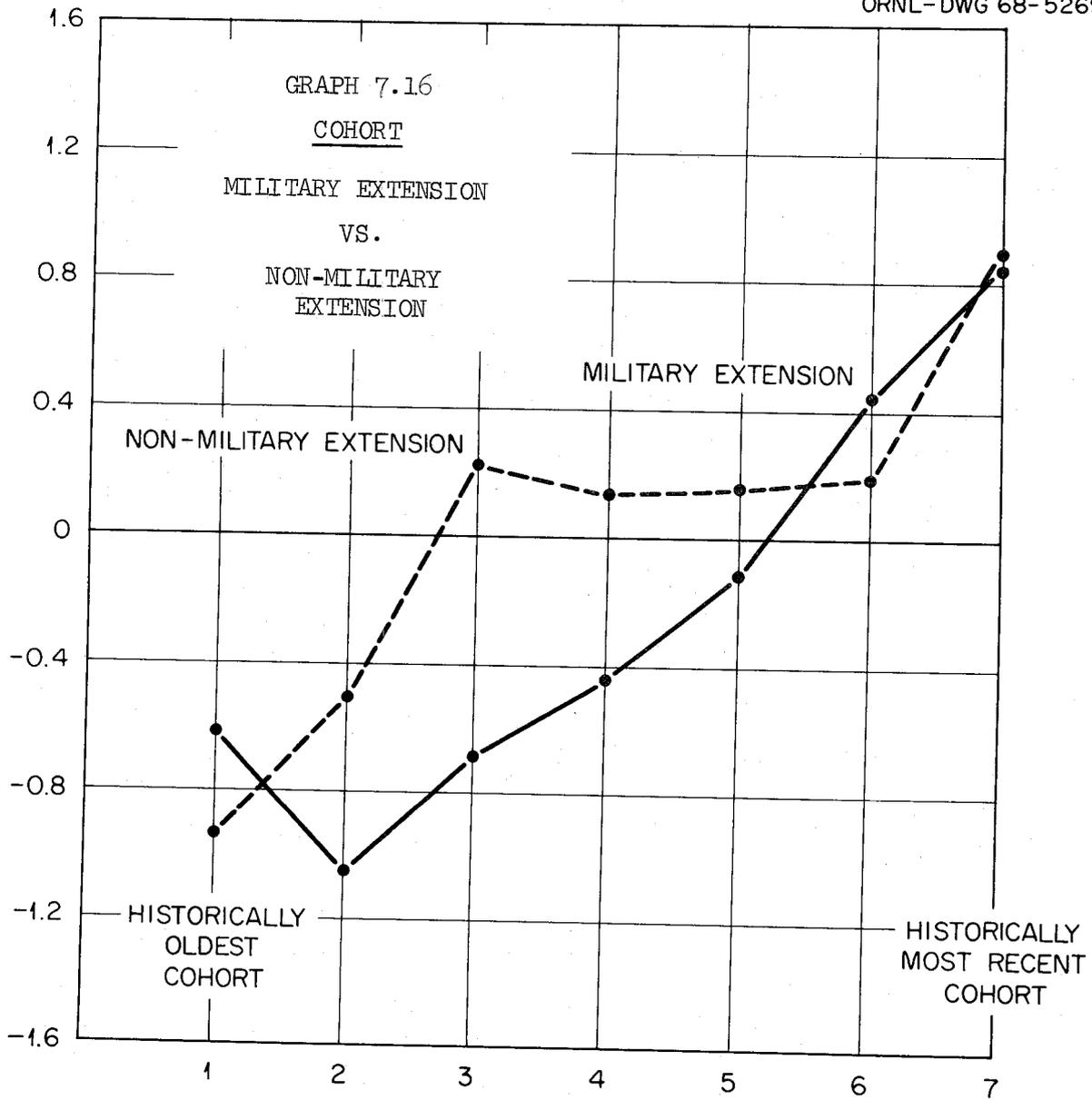


TABLE 7.2  
 ATTRIBUTE-SPACE FOR COHORTS<sup>a</sup>

Question-Set	Cohort 1	2	3	4	5	6	Cohort 7
1. Salience	L1		L2			H1	H2
2. Crisis Awareness	L1	L3			L2		(H)
3. Expectation of Crisis Escalation						H	(L)
4. Expectation of War		L				H2	H1
5. Negative Economic Expectations	L1	L2				H1	H2
6. Expected Local Nuclear Danger	L2		L1	H1	H3	H2	
7. Negative Image of U.S.S.R.	H			L			
8. Perceived Soviet Superiority	(H)		(H)	(L)	(L)		
9. Military Capability	(L)			H2	H2		H1
10. Advocacy of War			L				H
11. Military Extension	L3	L1	L2				H
12. Non-Military Extension	L1	L2					H

<sup>a</sup>Derived from Table 7.1 using threshold of +.5/-.5. Further details given in Subsection 7.4.1.

Table 7.1 have been described in this chapter by a series of graphs in which each row of the table was represented by a single graph; in selected instances two attitudes or rows were depicted in a graph. Each column of Table 7.1, however, represents the total profile of one cohort across twelve attitudinal question-sets. Since the first column represents the historically oldest generational group and the seventh column represents the most recent generational group, analysis of the differences in these column profiles represents the generalized direction of trends in American attitudes toward matters of foreign policy. We specify the predominant attributes of each cohort column by isolating those attitudes within the profile which have been given the "highest" and "lowest" support by the cohort. The primary burden of this subsection, therefore, is to describe the operations through which the "high" and "low" designations have been produced.

In scanning the columns of Table 7.1, it is important to remember that the various attitude scores are directly comparable to one another since all responses have previously been standardized through a z-score transformation. Thus a score of  $-.94$  for the first cohort in Table 7.1 on the first attitude (row) is directly comparable in magnitude to the score of  $-.93$  indicated for the twelfth attitude. Differences between these attitude scores which may have been produced by such unwanted effects as differences in the wording of questions have been filtered out through the use of z-scores. It is therefore possible to proceed to the determination of the predominant attributes of each cohort profile with the knowledge that the column elements are directly comparable.

In designating which attitudes are to be given the "high" attribute and which are to be given the "low" attribute, two options are available. First, we could designate for each cohort that one attitude which had, relatively speaking, the highest (and lowest) score. Second, we could designate as high (or low) all scores which were above (or below) a particular threshold. To choose the first of these alternatives, the one highest and lowest score, would be to lose some of the information which the z-scores yield, since the scores are directly comparable on an interval basis and not just on an ordinal basis. Similarly, to compare two "highs" on this basis could result in the designation of two quite different values with the same attribute. On the other hand, by employing the second alternative, that of stipulating a threshold value, all scores given the "high" attribute constitute a relatively homogeneous set of scores in that they all at least meet the threshold criterion.

The decision to use the second of the options has two consequences which should be pointed out. First, since high and low are defined according to a threshold which is applied uniformly across all attitudes no matter what the actual shape of the trend line is, it is possible for a given attitude to have neither highs nor lows. Graph 7.9 is an example of a situation in which the trend curve is fairly horizontal and is near the zero axis. Second, this same reasoning indicates that a given attitude can theoretically have all highs or all lows; an example of this would be a fairly horizontal curve which lies beyond the high or low threshold. While none of the attitudes in our data possess this characteristic, there are a number of question-sets which have more than one high or low attribute.

To take account of these possibilities, the following notation will be employed: (a) Where no high (or low) score was present as defined by the threshold, the relatively highest (or lowest) entry was inserted into the attribute-space no matter what the magnitude of the score was, and then the entry was enclosed in parentheses. (b) Where more than one attitude could be given the high (or low) attribute, the attitudes were entered into the attribute-space with the rank of the attitude. Thus "H1" and "H2" are the first and second highest scores for the cohort, each of which is beyond the threshold; similarly, "L1" and "L2" are the first and second lowest scores for the cohort. In this way the reader can observe not only which attitudes were given high and low endorsement by the cohort and life-stage groups, but also the rank order of preferences within those high and low attributes.

The threshold which has been chosen corresponds to a z-score of .5. Graphically, the threshold would correspond to a horizontal line drawn across the graph at the .5 position on the z-score (vertical) axis, and another such line at the -.5 position. In this way, all points above the upper threshold line are designated with the "high" attribute, and all points below the lower threshold line are given the "low" attribute. Although the placement of this line is somewhat arbitrary, the fact that it will be used uniformly across all data points and for all question-sets allows the threshold to be a useful device for creating the attribute-space. If the value of the threshold were increased (e.g., to +.6 and -.6), we would lose some of the points which have been given the high and low attributes. Similarly, if the threshold were lowered (e.g., to +.4 and -.4), we would add some points. The question then becomes one of

determining how much information would be gained or lost. Initial experimentation with incremental changes in the value of the threshold has revealed that no appreciable difference would result in (a) the number of high and low attributes, (b) the structure of high and low attributes, and therefore (c) the interpretation of the attribute-space cohort profiles. Furthermore, the  $+0.5/-0.5$  threshold is appealing in that it cuts the total distribution of z-scores approximately into thirds:  $+1.5$  to  $+0.5$ ,  $+0.5$  to  $-0.5$ , and  $-0.5$  to  $-1.5$ .

#### 7.4.2 Interpretation of the Attribute-Space

Table 7.2 presents the attribute-space for the twelve attitudinal question-sets as constructed on the basis of the criteria outlined above. As in Table 7.1, each column represents a generational cohort. Looking first at the earliest two cohorts, those persons who were approximately twenty years old at the time of World War I, we find that the "low" attribute characterizes the first two question-sets, Salience and Crisis Awareness. Although the third and fifth cohorts are also low on these variables, it is clear that these historically early cohorts can be accurately characterized as possessing little cognitive participation in the domain of foreign policy and international relations.

The negative expectations of the Cold War among these two earliest cohorts, question-sets three through six, are not highly negative, as indicated by (a) the lack of any "high" attributes and (b) the appearance of a number of "low" attributes for these attitudes. On the other hand, the oldest cohorts, especially the first cohort, have high negative perceptions and evaluations of the Soviet Union, conceptualized as a major

Cold War actor. The policy orientations of these older cohorts mirror somewhat the low level of cognitive involvement in foreign policy matters in that none of the four attitudes are characterized by the "high" attribute while there are a number of "low" attributes. For these persons Advocacy of War and Military Capability have the highest level of endorsement, although the level does not exceed the "high" threshold. Policies of Non-Military Extension, foreign aid, have the lowest level of support, with Military Extension occupying a position in between.

For the middle three cohorts there are increases in the levels of both foreign policy Saliency and Crisis Awareness as evidenced by the relative lack of "low" attributes which characterized earlier cohorts. In the area of expectations emanating from the social and international environment, there is a mixture of high and low levels of negative perceptions; the dominant characteristic of these middle cohorts, however, is the relative lack of many attributes at all. A similar description can be made of the Negative Image of the Soviet Union, although on the average this set of attitudes possesses the "low" attribute more than "high." In terms of their policy orientations, these cohorts give their highest levels of support to the maintenance and/or extension of Military Capability, followed by endorsement of both Military and Non-Military Extension.

The most recent cohorts possess the relatively highest levels of foreign policy Saliency and Crisis Awareness. These indicators of cognitive involvement are accompanied by high levels of negative expectations in the area of war and economic events, and to a lesser extent, Expectation of Local Nuclear Danger. On the other hand, these youngest cohorts

do not possess the high levels of negative perceptions of the Soviet Union which characterized the earliest cohorts. Finally, these youngest cohorts possess the highest levels of support for all four of the policy question-sets. Within these four, Military Extension obtains the highest level of support, followed closely by the other three.

On the basis of these multiple attitude profiles, a number of statements can be made concerning the general foreign policy orientations of these cohorts.<sup>15</sup> The oldest cohorts may be characterized as relatively isolationist, on the basis of their low levels of cognitive involvement in the area of foreign policy and international relations, as well as their generally low endorsement of all four of the policy orientations. The major Cold War perceptions of these older cohorts tend to be actor-oriented as indicated by the low levels of all negative expectations concerning foreign policy environment but high level of negative perceptions of the Soviet Union. Associated with this isolationist and actor-oriented profile, these older cohorts relatively prefer unilateral-aggressive policies, in the form of Advocacy of War and Military Capability as the favored policy orientations for the United States in the Cold War period.

The middle groups of cohorts may be characterized as somewhat involved in matters of foreign policy as indicated by their middle range levels of foreign policy Salience and Crisis Awareness, and similar levels of general

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<sup>15</sup>The reader is reminded that in evaluating our interpretations, as in any research based upon statistical reasoning, "correlation does not mean causation." That is, the fact that meaningful attitude trends are strongly associated with the generational (or life-cycle) effects of the age variable does not necessarily mean that the elements of the generational experience are the sole or even predominant cause of the trends. In the present study, of course, the major rival hypothesis to the generational explanation is that of the life-cycle interpretation. In Chapter Nine these two explanations are confronted against one another.

policy endorsement. These cohorts have higher levels of negative expectation, especially on the question of Local Nuclear Danger, but for the other expectation question-sets as well. Perceptions of the Soviet Union are mixed as indicated by the medium-to-low levels of negative image and fear of that international actor. The profile of the perceptions of these cohorts may, therefore, be characterized moderately system-oriented. The policy endorsements of these cohorts are, in general, all of higher levels than the previous cohorts. The most desired policy orientation is that of maintaining and/or increasing Military Capability; the least desired policies are those of Advocacy of War and Military Extension. These cohorts may, therefore, be characterized as preferring unilateral deterrence, although there is some support for multilateral policy as well.

The most recent cohorts possess the highest levels of foreign policy Salience and Crisis Awareness, as well as relatively high levels of support for a variety of different policy orientations. These cohorts may thus be characterized as internationalist in orientation. The structure of perceptions of the international system on the part of these cohorts differs significantly from that of the previous cohorts. Members of these historically most recent cohorts possess low-to-moderate negative images and perceptions of the Soviet Union, but fairly consistently high levels of negative expectations emanating from the environment, especially in the areas of Expectation of War and Negative Economic Expectation. These cohorts may then be characterized as substantially system-oriented in their general view of foreign policy and international relations. As mentioned previously, these cohorts possess moderate-to-high levels of endorsement for all four of the policy orientations represented in our data. The

highest levels are obtained by the policies of Military Extension which include both bilateral arrangements concerning the stationing of American troops in other parts of the world, as well as multilateral collective security agreements. Thus, these historically most recent cohorts may be characterized as favoring multiple active strategies in the conduct of United States foreign policy.

Since the characterizations are of the foreign policy positions of successive generational cohorts, they represent the historical trend of American public attitudes toward foreign policy. By grouping our twelve question-sets into four general categories, as was done informally in the discussions above--cognitive participation in the domain of foreign policy, negative expectations concerning the international environment, perceptions of a major environmental actor, and endorsement of alternative policy orientations--our generational analysis of the attitudes allows us to isolate the major multivariate trends which have developed over the past twenty years. These trends are summarized as follows:

1. Movement from little cognitive participation in the environment of foreign policy to high levels of such participation;
2. Movement from low levels of negative expectations emanating from the international environment to high levels of such expectations;
3. Movement from high levels of hostile and negative images of a major system actor to moderate or low levels of such images and perceptions;
4. Movement from unilateral orientations in policy preferences to multilateral orientations; and
5. Movement from relatively aggressive and seemingly hostile orientations to a mix of non-military, defensive, and active policy orientations.

CHAPTER EIGHT  
LIFE-STAGE EFFECTS

8.1 Introduction

It has been pointed out that the technique of cohort analysis yields information not only about generational cohorts, but about the effects of the aging process as well. Both of these kinds of information are necessary in evaluating any age-correlated behavior, as has been discussed in Chapters Two and Four. This chapter portrays the results of the second phase of the analysis, the life-stage data for the twelve foreign policy attitude question-sets.

The organization of this chapter includes the same four elements discussed in Chapter Seven. Table 8.1 contains the basic attitudinal data for the eleven life-stage groups. The remaining elements include the trend graphs, the testing of hypotheses taken from the research literature on the aging process, and the construction and interpretation of an attribute-space.

One difference between this chapter and the previous one concerns the nature of the hypotheses which will be tested. While the specific hypotheses concerning generational effects were mostly stated by their original formulators in terms of attitudes toward foreign policy, such is not the case in this chapter. Most of the hypotheses concerning life-stage effects have been drawn from the human development and gerontological research literature described in Chapter Two. As in Chapter Seven, however, we have attempted to provide valid operational translations of these hypotheses into

TABLE 8.1  
LIFE-STAGE MEAN Z-SCORES<sup>a</sup>

Question-Set	Life- Stage 1	2	3	4	5	6	7	8	9	10	Life- Stage 11
1. Salience	1.71	.42	.67	.23	.32	.06	-.13	-.34	-.49	-.93	-1.52
2. Crisis Awareness	.45	.29	.06	.58	.22	-.07	.04	.17	-.49	-.17	-1.09
3. Expectation of Crisis Escalation	.23	-1.18	-.04	-.32	.10	1.09	-.14	.09	.83	-.53	-.12
4. Expectation of War	.97	1.10	-.16	.48	.15	.05	-.44	.05	-.63	-.38	-1.19
5. Negative Economic Expectations	.50	.16	.48	.16	.40	-.34	-.81	.19	-.61	-.82	.69
6. Expected Local Nuclear Danger	.52	1.15	.40	.19	.42	.62	.67	-.08	-.39	-.54	-.83
7. Negative Image of U.S.S.R.	-.33	-.50	-.91	-.28	-.36	.03	.52	.07	-.16	.63	1.28
8. Perceived Soviet Superiority	.35	.27	.02	.43	.09	-.42	-.18	-.44	.81	.36	-.07
9. Military Capability	-.43	.10	-.15	.32	.91	.11	.55	-.43	-.12	-.35	-.53
10. Advocacy of War	.44	.15	.33	.44	-.34	.93	-.49	-1.24	.19	-.19	-.23
11. Military Extension	.59	.15	-.01	.46	-.17	-.04	-.45	-.47	-.88	.54	.27
12. Non-Military Extension	1.02	.98	.84	.50	-.04	.22	-.13	-.08	-.78	-.73	-1.81

<sup>a</sup>Column entries range from youngest life-stage to oldest life-stage. Each entry represents the arithmetic mean of all z-scores obtained across the five sampling points, 1946-1966. Thus, each entry represents an entire life-stage row as depicted in Table 4.1, the "Cohort Analysis Matrix."

the language of the twelve foreign policy question-sets. For continuity of presentation the hypotheses are numbered sequentially throughout the cohort and life-stage chapters.

## 8.2 Life-Stage Effects in Single Attitude Trends

Graph 8.1 provides the relationship between aging and the attributed Saliency of foreign policy issues. As can be seen, there is a clear downward pattern of response: the older the person the lower the level of Saliency. This pattern is especially marked after the age of forty; in fact, this is one of the clearest trend lines in the entire study. In other studies of political behavior, the general saliency of politics has been found to possess a curvilinear unimodal relationship with age. Milbrath, for example, has summarized a number of empirical studies in which it was found that the youngest and oldest age groups both have low levels of political participation, while the middle life-stages have relatively high levels of such participation.<sup>1</sup> Our data conform to this general pattern only with respect to the lower levels of Saliency which are found for the older end of the age continuum. The theory of disengagement put forth by Cumming and Henry,<sup>2</sup> as described in Chapter Two, predicts that:

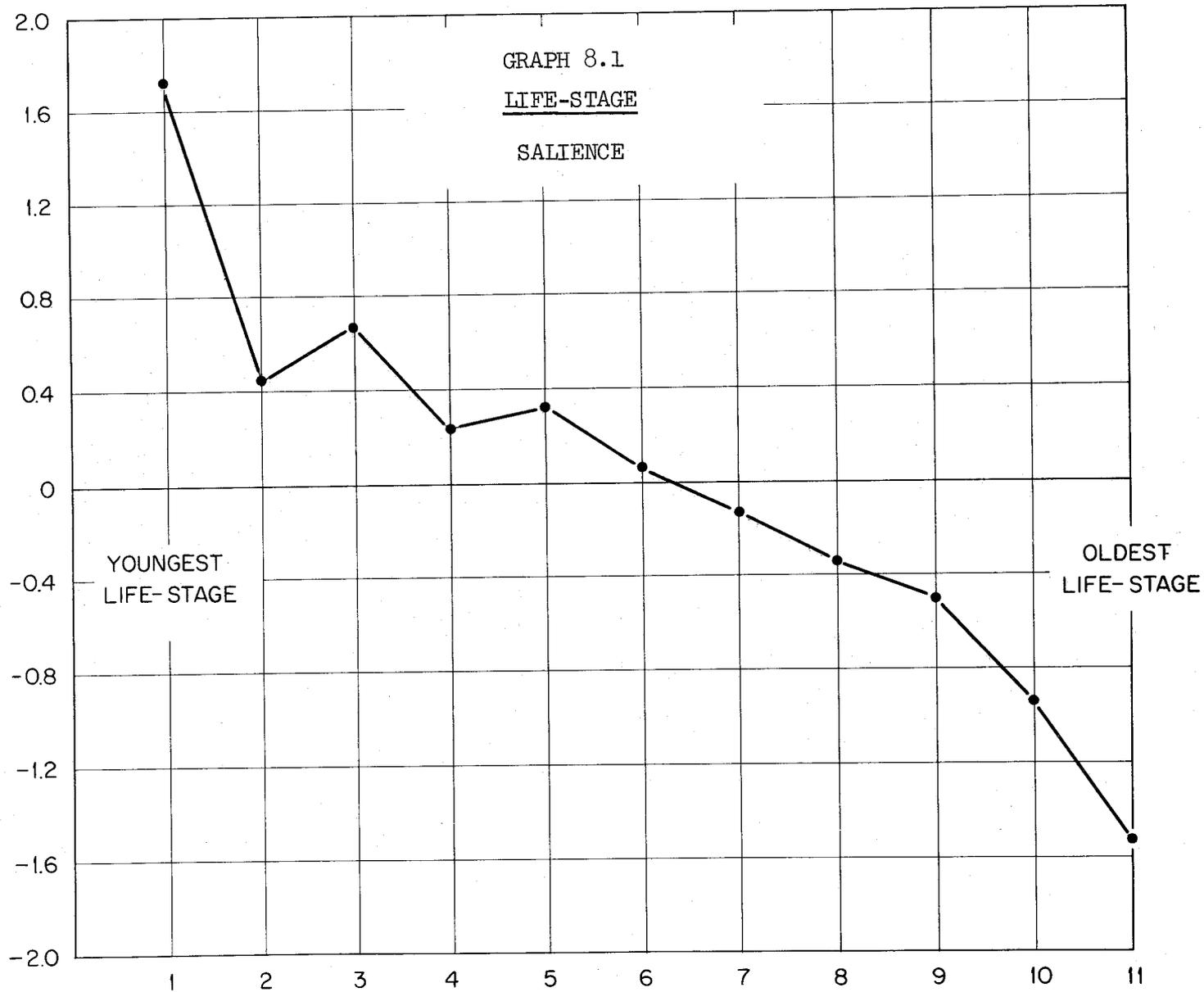
H<sub>15</sub>: The older the life-stage the lower the level of foreign policy Saliency.

Our data demonstrate quite dramatically that this hypothesis is valid.

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<sup>1</sup>Lester W. Milbrath, Political Participation. Chicago, Rand McNally, 1965, pp. 134-135. See also: Robert E. Lane, Political Life. New York, The Free Press, 1959, p. 48.

<sup>2</sup>Elaine Cumming and William Henry, Growing Old. New York, Basic Books, 1960, p. 14.

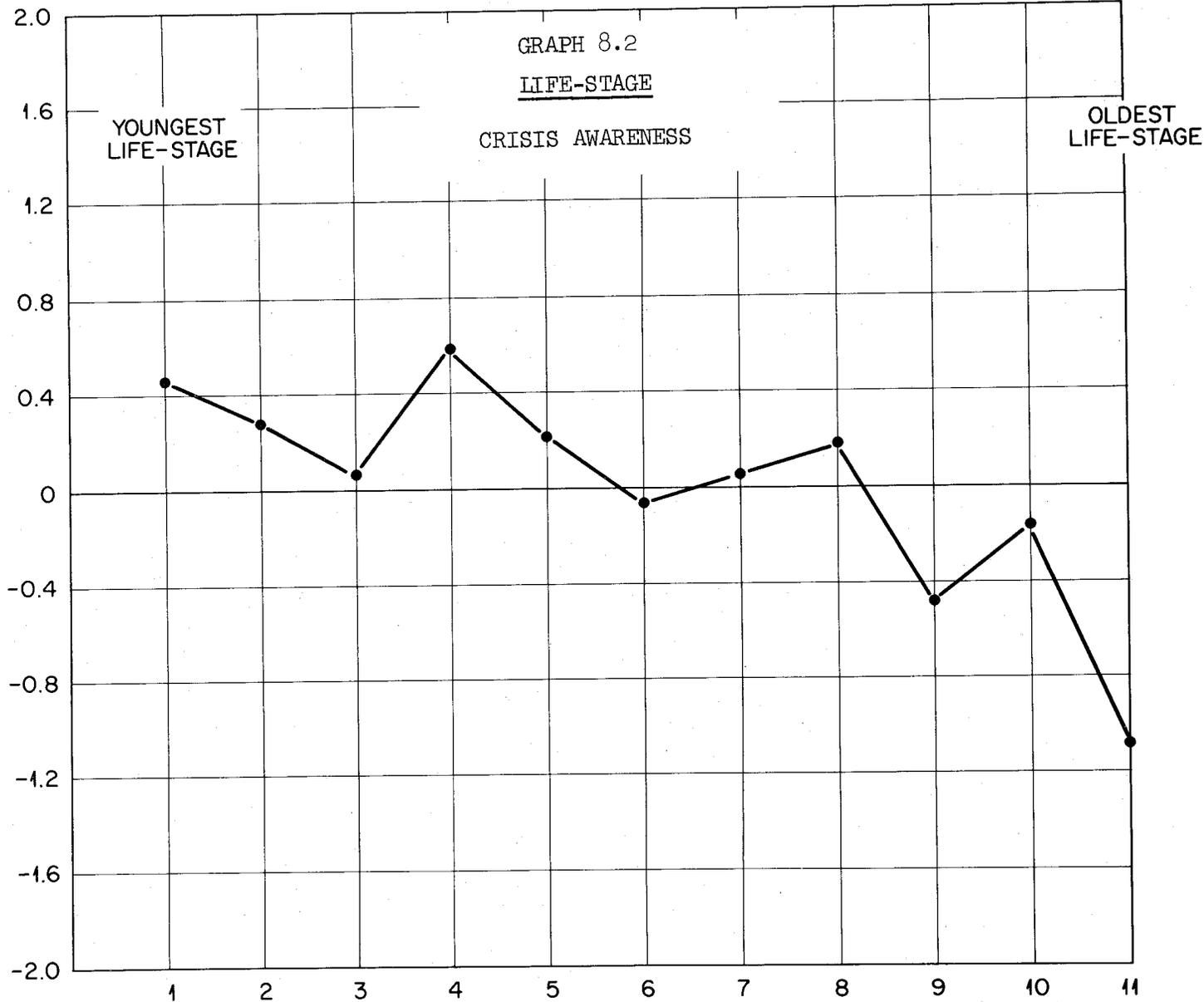


The pattern of response in Graph 8.2, Crisis Awareness, is somewhat similar to the previous Saliency pattern. The variable of Crisis Awareness is also of the same type as Saliency in that it taps the respondent's cognitive participation in the domain of foreign policy and international relations. The data indicate that although the trend is not as dramatic as the one in the previous graph, there is a correspondence between decreasing levels of Crisis Awareness and the aging process. This question-set may also provide a test of the disengagement theory:

H<sub>16</sub>: The older the life-stage the lower the level of Crisis Awareness.

This hypothesis, too, is seen as basically verified.

The fact that the trend in this awareness variable is less regular than the Saliency trend indicates that the two phenomena, while related, are nonetheless distinct. It will be noticed, for example, that the decline in levels of Crisis Awareness is not as sharp as in the case of Saliency; furthermore, the range of responses for Crisis Awareness is not as wide as in the previous variable. This indicates that the forces which produce awareness of international crises are somewhat different than the forces which serve to promote the more general saliency of foreign policy. One plausible explanation concerns the feelings of threat with which some writers have characterized older persons. The fact that the status losses of old age leave older persons with feelings of vulnerability could lead to the expectation that such persons would be more keenly aware of threats emanating from the environment. While such hypotheses will be more directly tested in the following question-sets, some of this effect may be felt in



the Crisis Awareness data. The similarity with the Saliency trend, however, indicates that the "awareness" component of the attitude may be dominant with the "crisis" component serving to alter the basic awareness trend.

Another hypothesis concerning the dynamics of the aging process which may be tested with these data has been forwarded by Pressey and Kuhlen.<sup>3</sup> These writers hypothesize on the basis of cross-sectional data that occupants of the polar life-stages (youth and elderly) are each less politically informed than are individuals occupying middle life-stages:

H<sub>17</sub>: The older and younger life-stages each have lower levels of Crisis Awareness than the intermediate life-stages.

The overall linear trend in these data indicate that this hypothesis is not a valid one in the case of Crisis Awareness.

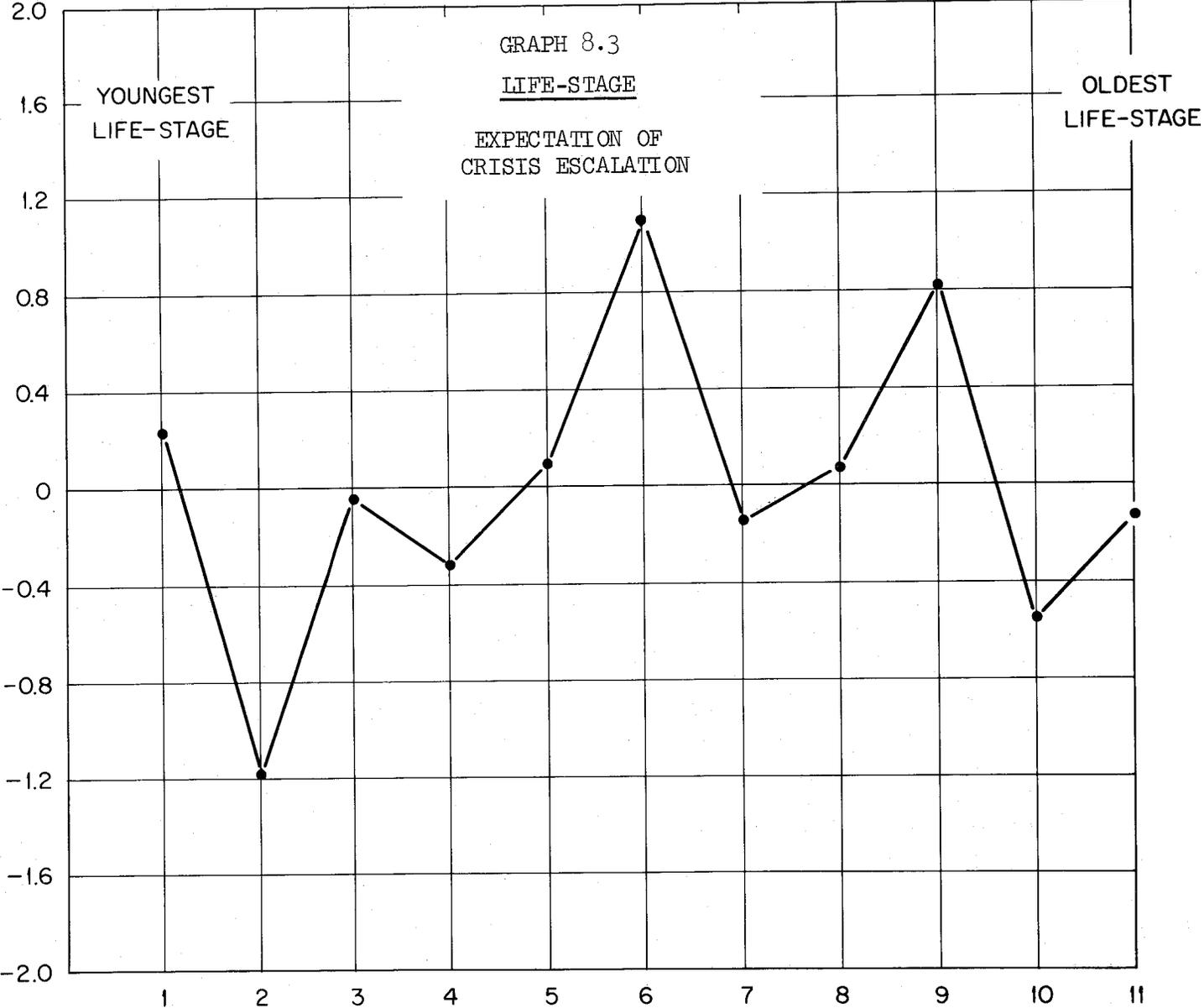
The data for Expectation of Crisis Escalation, Graph 8.3, indicate that no consistent life-stage effect is operating, although it may be said that the older end of the age continuum has a generally higher level than the younger end. Using cross-sectional data, Back and Gergen found that the occupants of polar life-stages both tend to perceive international crises as "apocalyptic" that is, as final or terminal.<sup>4</sup> In terms of our own data, this finding may be restated in terms of the belief that international crises will escalate militarily:

H<sub>18</sub>: The older and younger life-stages each have higher levels of Expectation of Crisis Escalation than the intermediate life-stages.

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<sup>3</sup>Sidney L. Pressey and Raymond G. Kuhlen, Psychological Development Through the Life Span. New York, Harper, 1957, p. 458.

<sup>4</sup>Kurt W. Back and Kenneth J. Gergen, "Apocalyptic and Serial Time Orientations and the Structure of Opinions," Public Opinion Quarterly, 27 (1963), p. 442.

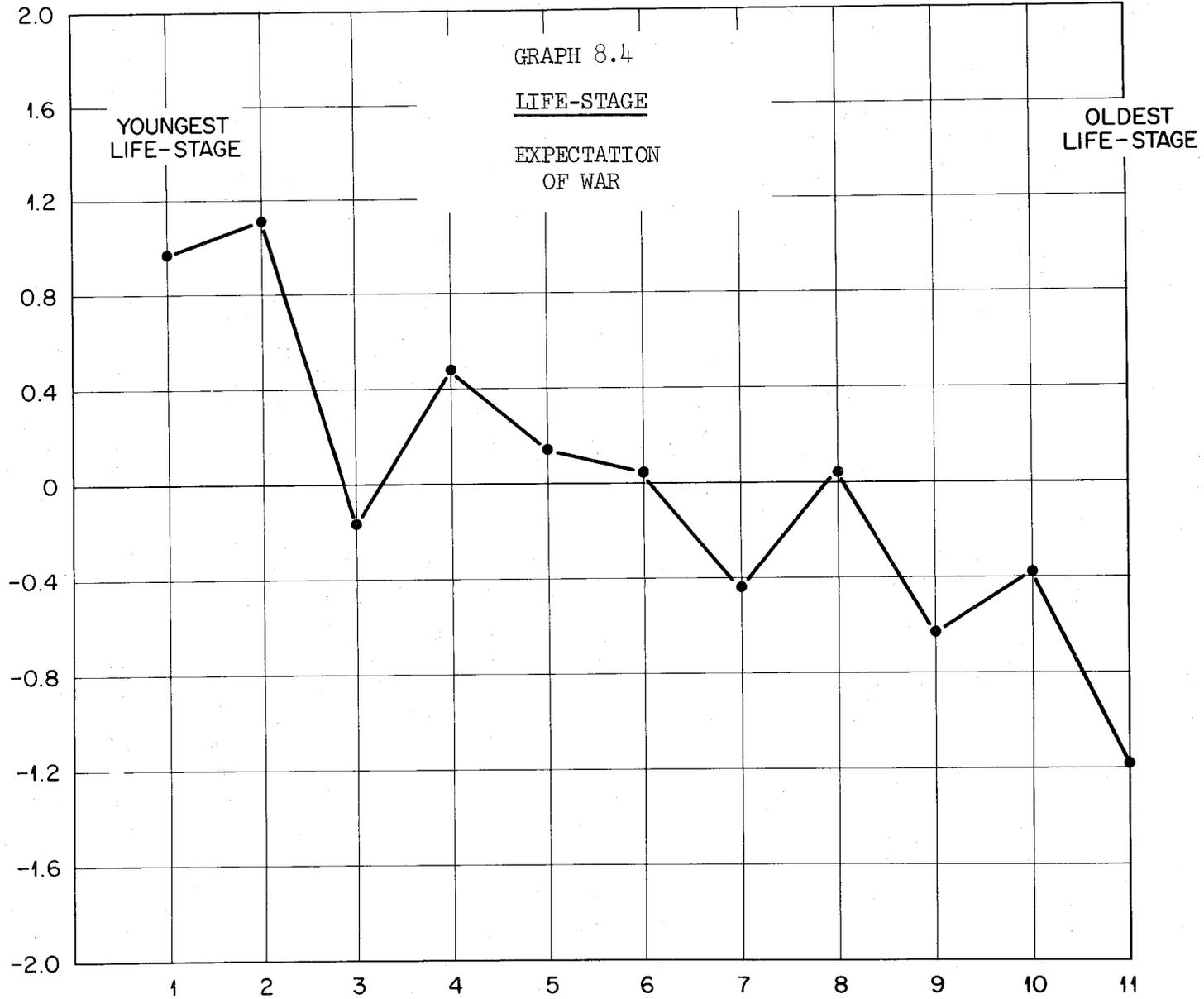


Although these data show that the very youngest and the very oldest life-stages are more like each other than they are like most of the intermediate life-stages, the hypothesis is not verified.

A relatively clear linear trend is found in Graph 8.4, for attitudes concerning the Expectation of War. The older the life-stage the lower the level of expectation. Again drawing upon the work of Back and Gergen, it might be expected that the apocalyptic orientation which these writers ascribe to polar life-stages would be manifest in this question-set also:

H<sub>19</sub>: The older and younger life-stages each have higher levels of Expectation of War than the intermediate life-stages.

This hypothesis is not validated by the data. Although the trend line is not smooth, it is clear that the attitude possesses a linear rather than a curvilinear relationship to the aging process. One explanation for this life-stage trend may be stated in terms of the "regularization" of international tensions on the part of older persons. As a person lives through an increasing number of years filled with tensions and threat of war, he may become convinced that threat of war is not always followed by actual war. Younger persons, on the other hand, do not have this backlog of experience through which the relationship between the threat and the event can become mediated. The younger the person, the more he believes that threats from the environment of foreign policy are meaningful signals of an ensuing outbreak of war. As he grows older he begins to accept a viewpoint in which tensions are no longer inextricably seen as indicators of war, and thus the expectation of war decreases. This negative association between aging and expectation of war, however, does not coincide with the general hypothesis of old age fear and threat.

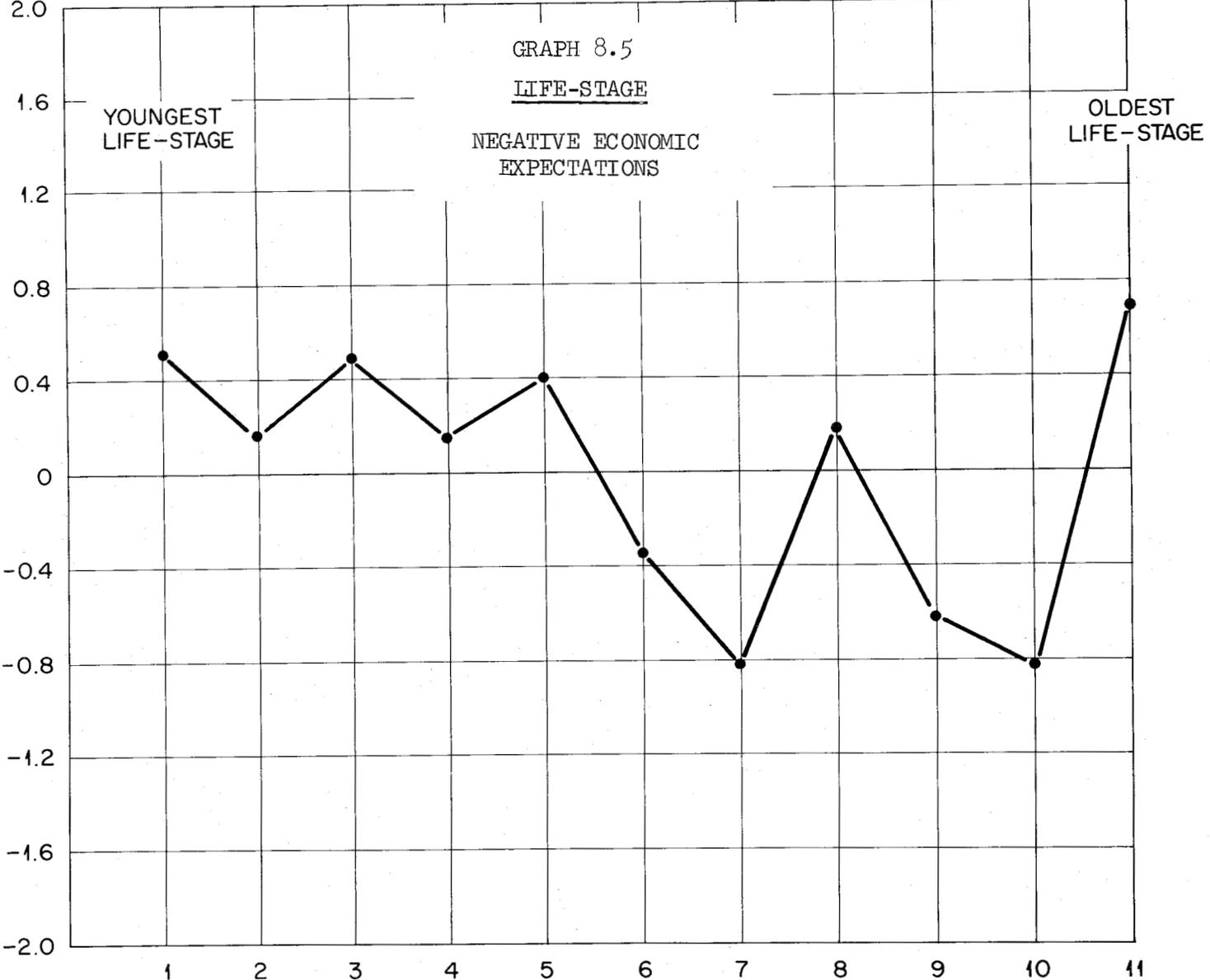


Graph 8.5 presents the data for Negative Economic Expectations, a variable outside the domain of foreign policy which has been included in the study for comparative purposes. Although there is no clearly definable linear relationship between this expectation and the aging process, an interesting pattern does emerge. It will be noticed that the younger and older ends of the age continuum each have a response pattern similar to a "W." The interesting difference is in the magnitude of the fluctuations; for the younger life-stages the "W" is relatively stable, while the "W" for the older life-stages fluctuates between relatively high levels of negative expectations and relatively low levels. The greater fluctuation of the older life-stages may be consistent with the hypothesis concerning the feelings of threat and vulnerability with which older persons have been characterized. A more specific explanation could be forwarded in terms of the relationship of the older life-stages to the economic system. Since pensions are usually of fixed amounts even in times of inflation, the perception of systemic economic problems may be internalized by older persons. This may explain the sharp increase in Negative Economic Expectations on the part of the oldest life-stage, the 71-75 age group. The earlier noticeable rise at the midpoint of the "W," the 55-60 age group, could be attributed to middle-age anticipation of the financial problems of retirement.

The original purpose of including this particular question-set was to test Sheatsley's hypothesis concerning the generalized feelings of negative expectation which he found to be characteristic of many persons:<sup>5</sup>

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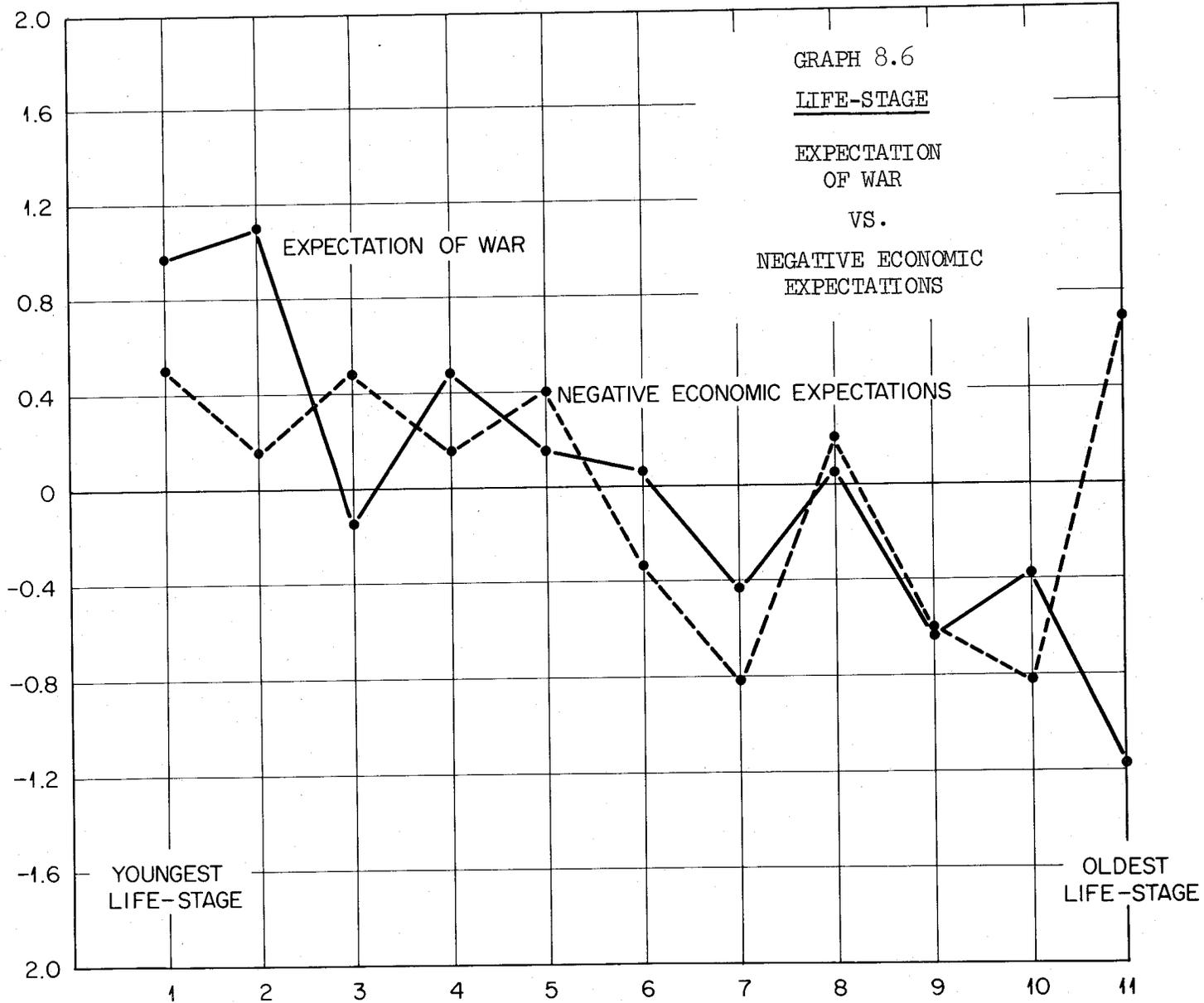
<sup>5</sup>Paul B. Sheatsley, "Expectations of War and Depression," Public Opinion Quarterly, 13 (1949), pp. 685-686.

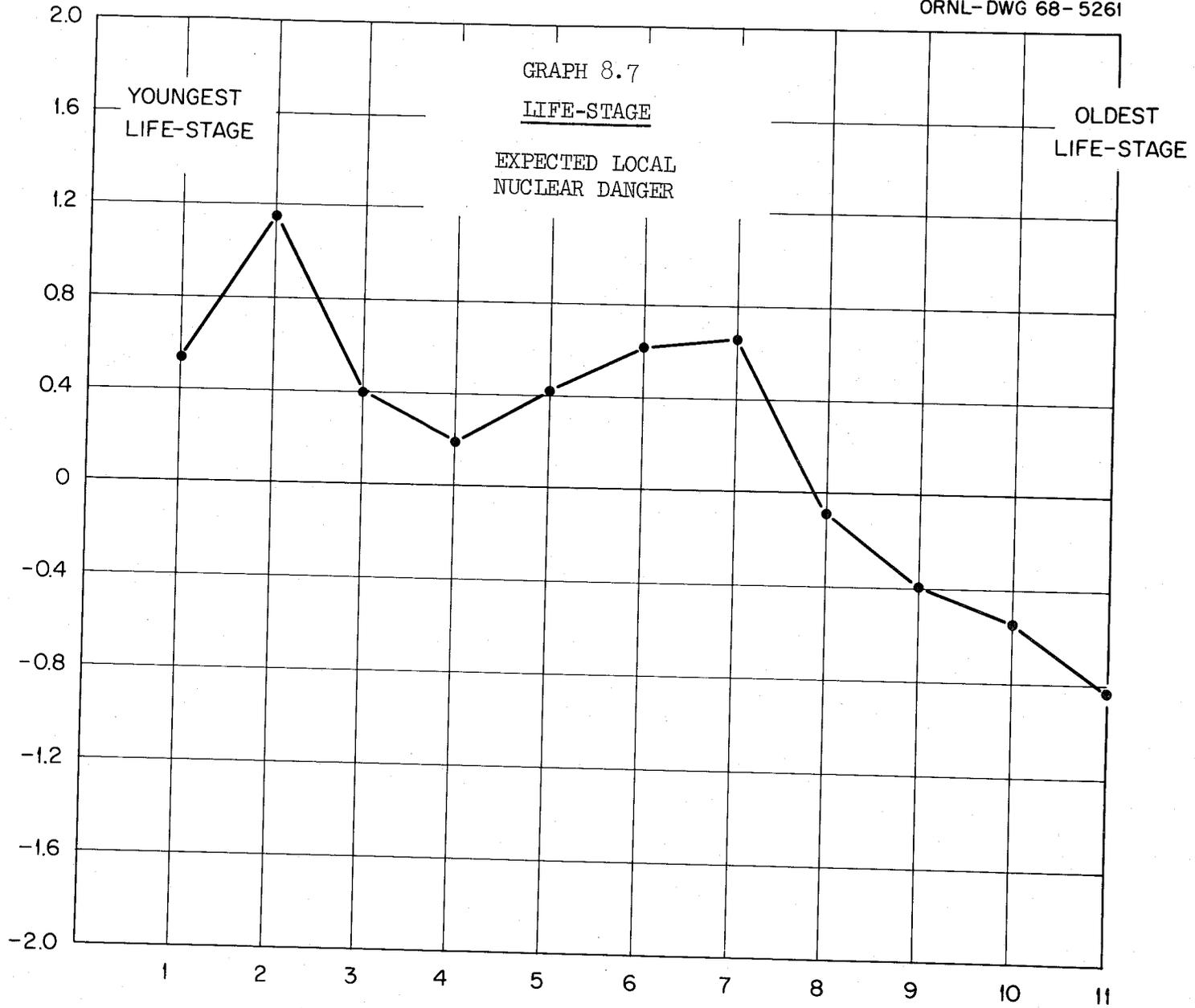


H<sub>20</sub>: Increasing levels of Expectation of War are positively associated with increasing levels of Negative Economic Expectations.

Graph 8.6 provides a test of this hypothesis. Although the fit of the two patterns is by no means perfect, the association is a moderately positive one. Further, with the exception of the oldest and the two youngest life-stages, the two patterns are very similar. There does appear, therefore, to be a generalized negative expectation syndrome for these two question-sets.

Another negative expectation question-set is given in Graph 8.7, Expected Local Nuclear Danger. Although the basic trend is a linear one in which increasing age is accompanied by a decrease in the expectation, there is an increase in expectation in the middle life-stages. The middle phase of the life cycle may be characterized as the time during which a peak is reached in the ratio between one's energy and activity on the one hand, and one's various rewards on the other. At younger life-stages, early in career development patterns, energy output might be greater but financial and status rewards are smaller. At older life-stages, the rewards may be greater, but energy output is at a lower level. These middle years, therefore, might be characterized as the most comfortable, enjoyable, and profitable years; a time, in other words, when external threats might be perceived as the most dangerous. This conceptualization predicts the middle life-stage increase in levels of Expected Local Nuclear Danger portrayed in Graph 8.7. To some extent this mode of explanation might also account for a portion of the variation in Graph 8.3, Expectation of Crisis Escalation. The fact that this effect is not seen in the Expectation of War could be explained





by the fact that this question-set pertains to war generally, war which does not necessarily affect the living-space of the individual. On the other hand, the specific items contained in the Nuclear Danger question-set are more oriented toward the personalized consequences of nuclear war.

The preceding four negative expectation question-sets all bear upon the generalized hypothesis concerning the relationship of the aging process to feelings and perceptions of threat. This hypothesis may now be more formally investigated. In reviewing a number of cross-sectional studies, mostly in the field of gerontological research, Kuhlen found that older persons feel threatened by a society which is gradually taking away many of the statuses and rewards which have been won over the course of a lifetime. Consequently, older persons tend to hold self-images of vulnerability to threats which emanate from the social environment.<sup>6</sup> In terms of the foreign policy attitude data, the hypothesis may be stated as follows:

H<sub>21</sub>: The older the life-stage the higher the level of negative expectations.

The data overwhelmingly direct us to reject this hypothesis. In three of the four question-sets the relationship is in the opposite direction, that is, the younger life-stages possess higher levels of negative expectations. In the fourth question-set, Negative Economic Expectations, the oldest life-stage possesses the highest level of negative expectation; however, the generalization which this attitude yields is one of less stability of response rather than lower levels of response.

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<sup>6</sup>Raymond G. Kuhlen, "Changing Personal Adjustment During the Adult Years," in John E. Anderson (ed.), Psychological Aspects of Aging. New York, American Psychological Association, 1956, p. 24.

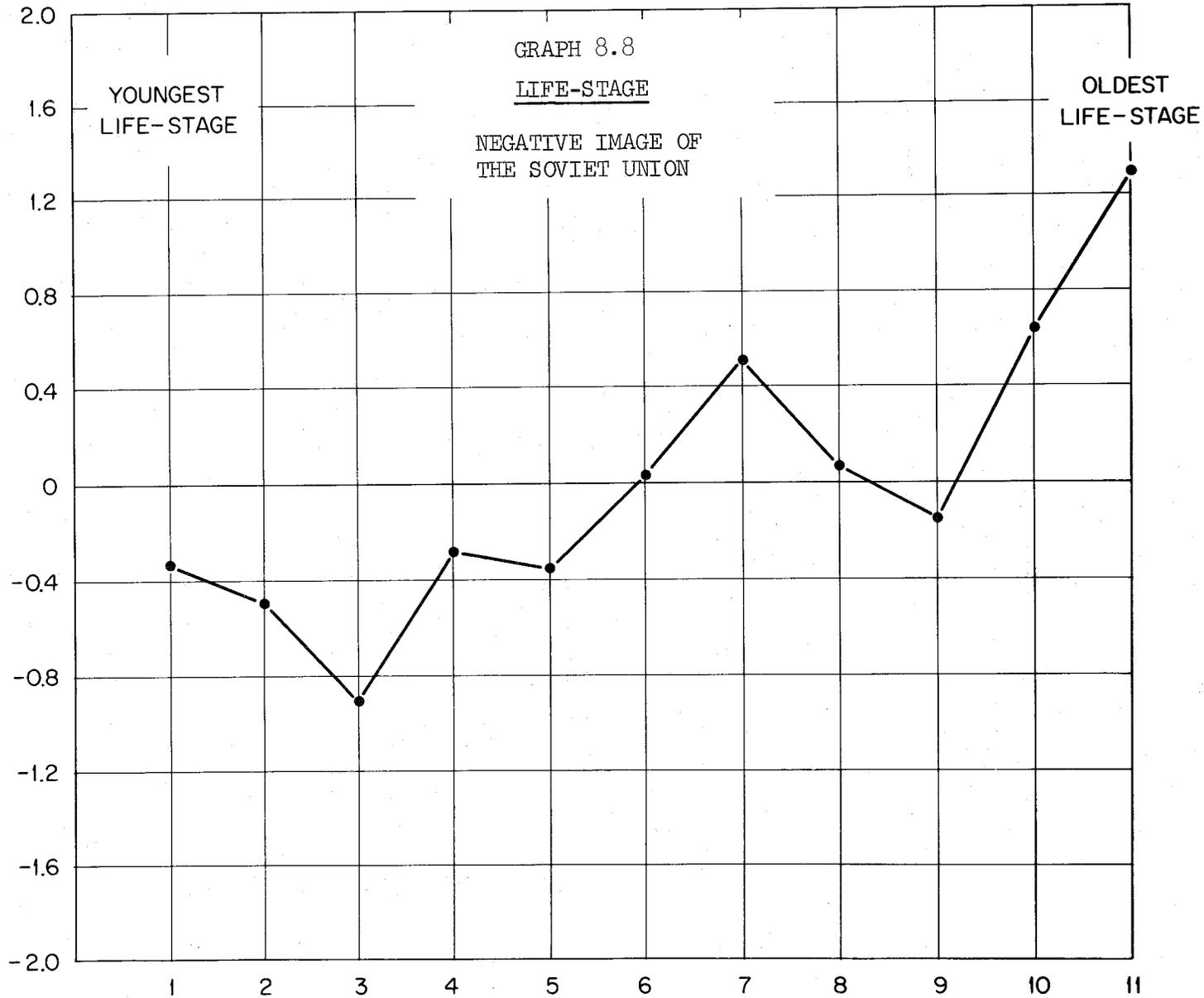
One may wonder why this hypothesis, based upon sound gerontological research, is so overwhelmingly rejected by these four question-sets. A plausible answer may be found in the first question-set, Saliency. It will be recalled that the older life-stages held the lowest levels of foreign policy Saliency. It may be hypothesized that this lack of cognitive participation in the domain of foreign policy serves as a buffer against those elements of the environment which would otherwise be a source of threats and fears. There is a similar pattern in the Crisis Awareness data. The determination of whether such low levels of Saliency and Crisis Awareness are subconscious defense mechanisms acting to screen out the foreign policy threats, or whether these data are just one manifestation of disengagement, is a question for further research. Our data do indicate, however, the plausibility of this kind of a buffer relationship between the two classes of attitudes.

In contrast to these patterns of negative association between aging and levels of negative expectations, Graph 8.8 yields a positive association between aging and negative perceptions of elements in the foreign policy environment. In this graph levels of Negative Image of the Soviet Union increase with age; although the pattern is somewhat irregular, the data approximate a linear curve. Pressey and Kuhlen have hypothesized that in general older persons have more negative images of others than do younger persons.<sup>7</sup> Thus the following hypothesis may be tested:

H<sub>22</sub>: The older the life-stage the higher the level of Negative Image of the Soviet Union.

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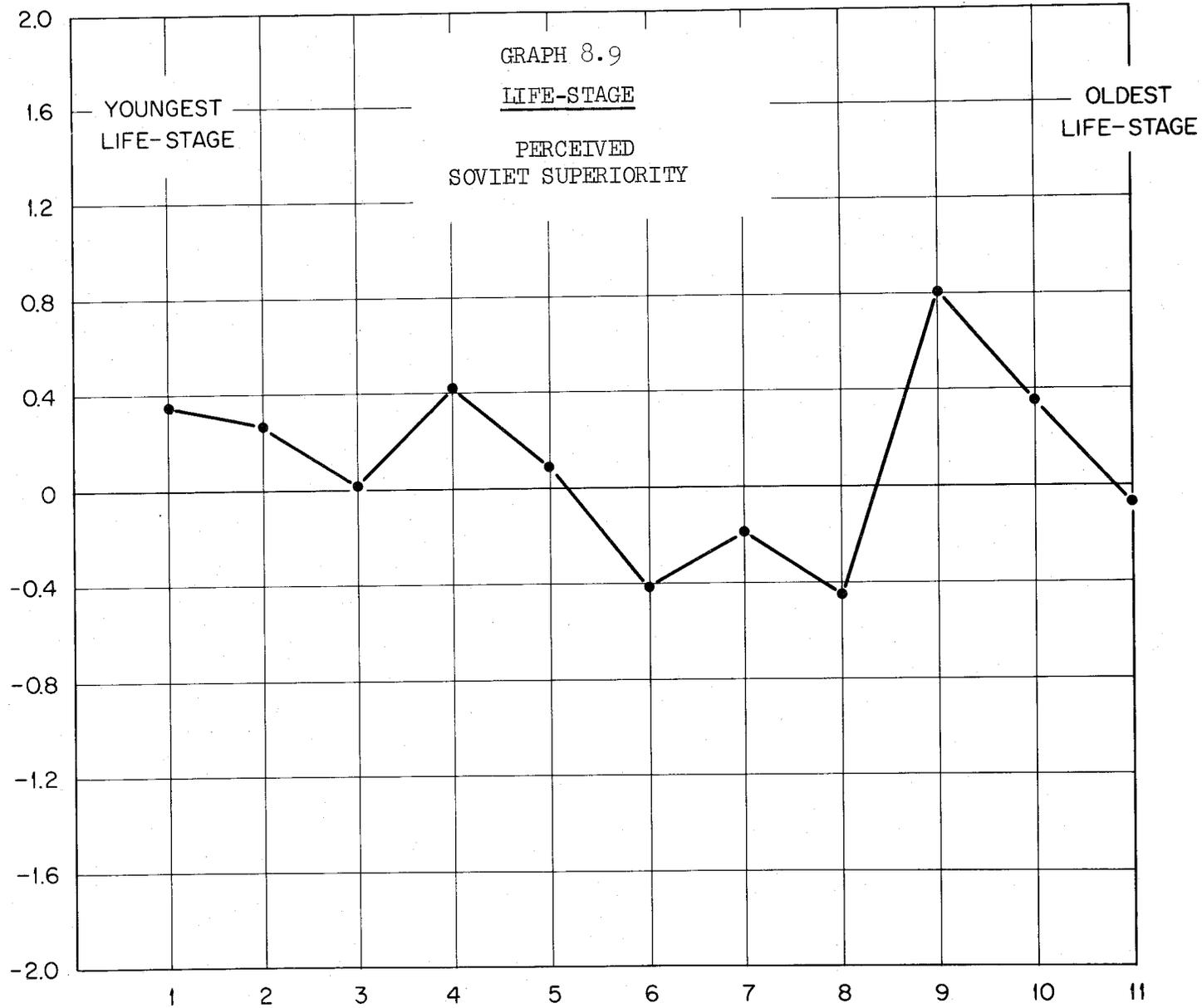
<sup>7</sup>Pressey and Kuhlen, op. cit., p. 550.



The data plotted in Graph 8.8 clearly verify this hypothesis. It may well be that possession of a negative image of an entity within the environment is not necessarily linked with the perception of a personally felt threat from that entity. To some extent this is borne out by the Saliency data already described. While the low levels of foreign policy Saliency which characterize the older life-stages may provide a buffer against specific kinds of threats, that is, negative expectations, a negative image of the Soviet Union may be held outside the context of any specific foreign policy crisis.

Although the Soviet Union is most often characterized as the "enemy" in foreign policy discourse, it may well be that an extension of hypothesis  $H_{22}$  to other nations, those usually considered as friendly to the United States, might also reveal negative images in the older life-stages. In other words, if older persons were found to be generally xenophobic, then the negative image of the Soviet Union expressed in these data would be found outside the context of contemporary foreign policy problems.

To some extent the data concerning Perceived Soviet Superiority in Graph 8.9 support the above explanation. This question-set is similar in nature to the negative expectation question-sets in that they all express a felt vulnerability or inferiority relative to the environment. As in the case of the negative expectations, there is no dominant tendency for older persons to express high levels of such vulnerability. Our experience with these negative expectation question-sets, however, leads us to again investigate the potential "buffer effect" which might be operating for these foreign policy attitudes. The perception of the superiority of others may be linked with one's cognitive involvement in the particular



domain under consideration. The hypothesis may be stated as follows:

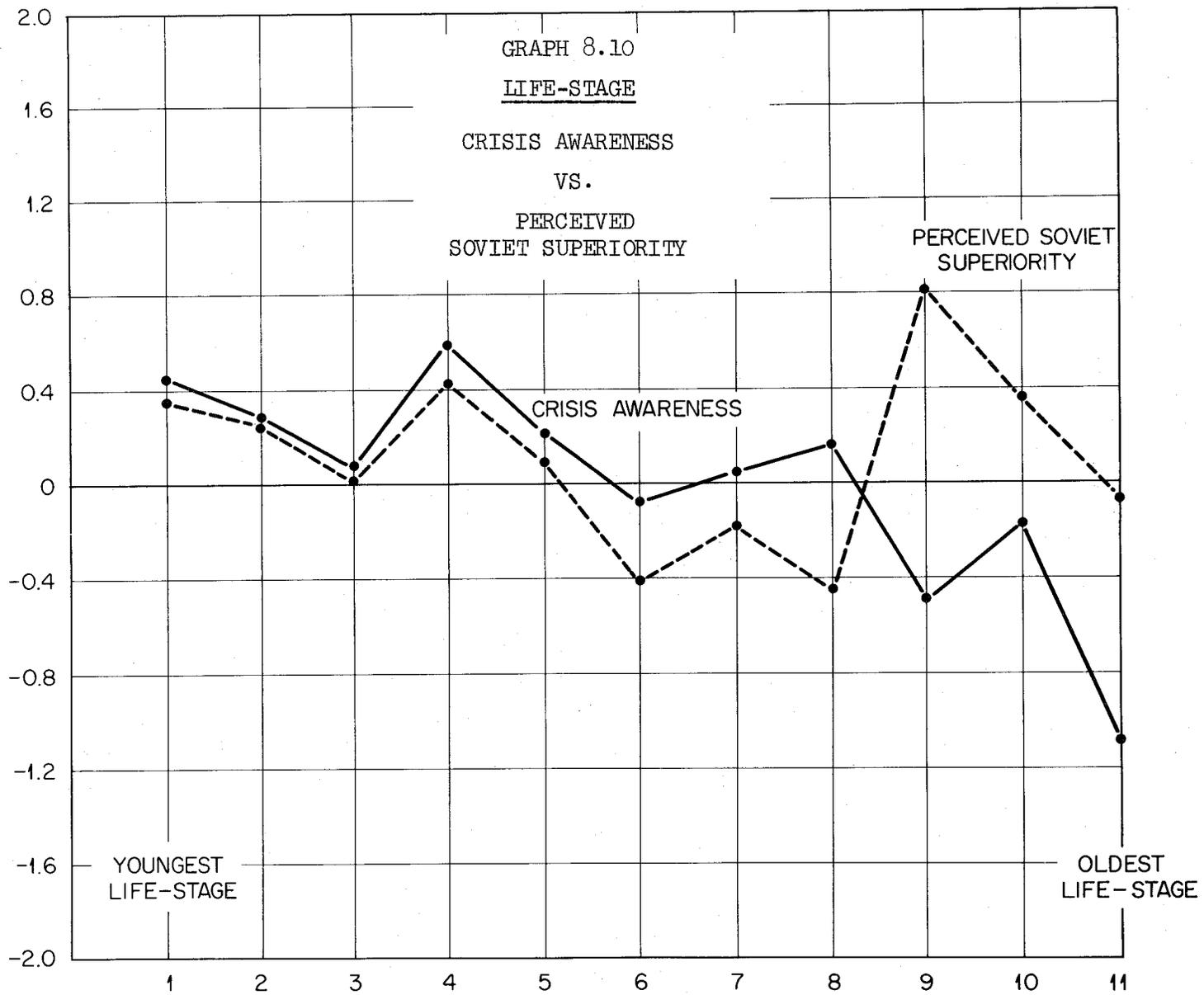
H<sub>23</sub>: Levels of Perceived Soviet Superiority are positively associated with levels of Crisis Awareness.

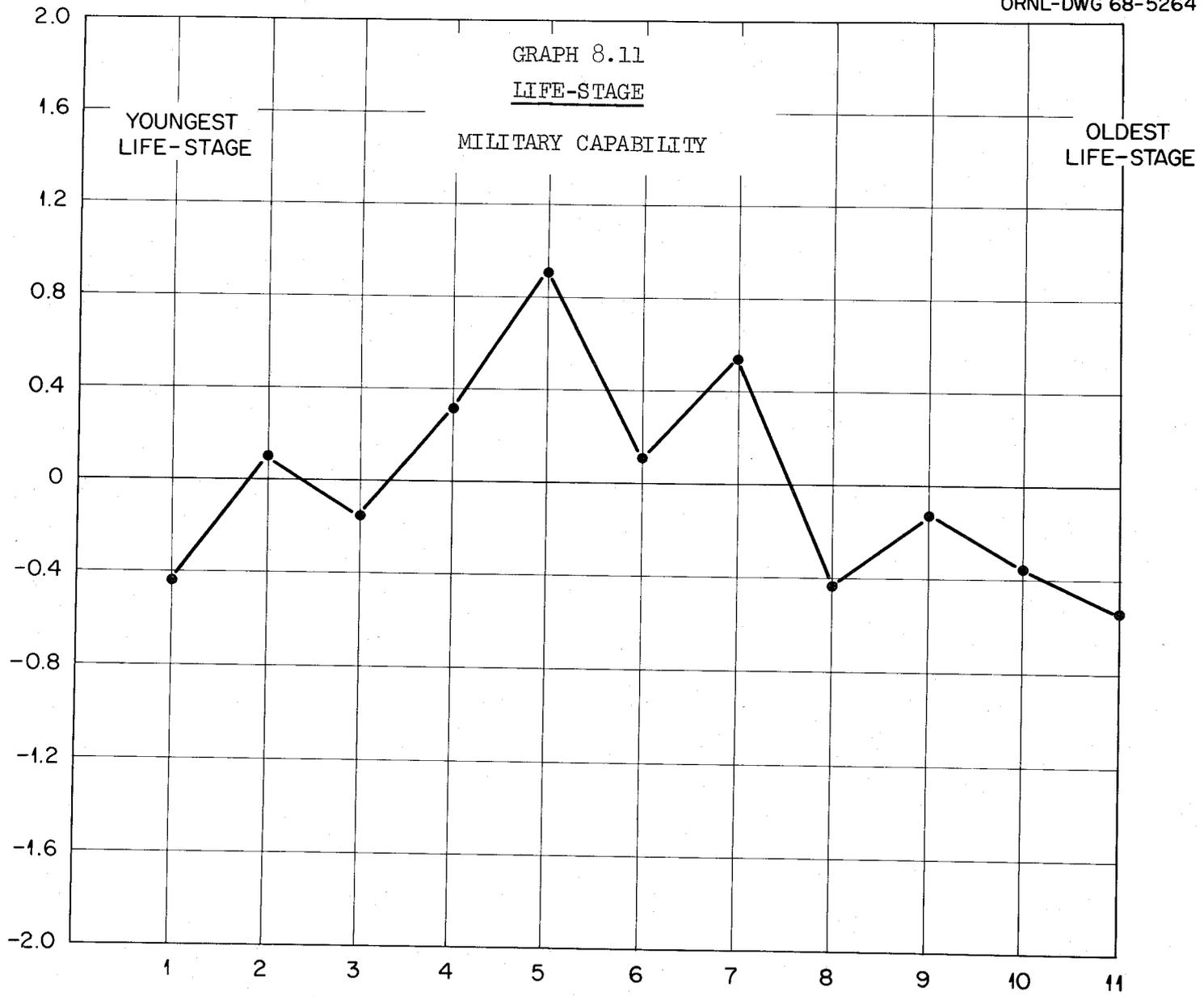
A test of this hypothesis is portrayed in Graph 8.10. With the exception of the ninth life-stage, there is a strong similarity between the age trends for these two question-sets. This similarity exists not only for the magnitude of the sequence of scores, but for the various slopes which connect each pair of scores. In supporting the hypothesis, these two question-sets yield additional data for expecting that the pattern of negative expectations on which hypothesis H<sub>21</sub> is based is also affected by such a "buffer effect."

The life-stage trend for attitudinal support for a policy of maintaining and/or increasing Military Capability is given in Graph 8.11. The trend for this question-set is basically curvilinear, of a unimodal nature, with both ends of the age continuum giving lower levels of endorsement than are given by the middle life-stages. Two opposing hypotheses have been found in the literature which may be tested with this question-set. A number of writers in the area of gerontological research have generally found that older persons express a greater need for protection than do younger age groups.<sup>8</sup> In terms of these particular data the following hypothesis may be stated:

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<sup>8</sup>Sheila M. Chown and Alastair Heron, "Psychological Aspects of Ageing [sic] in Man," Annual Review of Psychology, 17 (1965), p. 421; Richard H. Williams, "Changing Status, Roles, and Relationships," in Clark Tibbits (ed.), Handbook of Social Gerontology. Chicago, University of Chicago Press, 1960, p. 269; Pressey and Kuhlen, op. cit., p. 356.





H<sub>24a</sub>: The older the life-stage the higher the support for maintaining and/or increasing Military Capability.

In a study of attitudes toward various forms of disarmament, however, Rosi found that the greater the age of the respondent, the greater the support for the various disarmament proposals.<sup>9</sup> In terms of this question-set the hypothesis becomes:

H<sub>24b</sub>: The older the life-stage the lower the support for maintaining and/or increasing Military Capability.

The results of the tests of these hypotheses are mixed. The data indicate that both of the hypotheses are partially valid. There is an upward trend in support for a policy of Military Capability through the fifth or 41-45 year old life-stage, as predicted by hypothesis H<sub>24a</sub>. At this point, however, and especially beginning with the seventh or 51-55 year old life-stage, there is an almost linear decrease in support as predicted by hypothesis H<sub>24b</sub>.

The pattern of the above data fits the notion embodied in some of the earlier hypotheses, namely, that the polar life-stages of young and old persons are more like each other than they are like the middle life-stages. Johan Galtung, the Norwegian mathematician and sociologist, for example, has constructed an elaborate typology of social position called the "center-periphery index."<sup>10</sup> In this scheme, individuals are measured along a number

<sup>9</sup>Eugene J. Rosi, "Mass and Attentive Opinion on Nuclear Weapons and Fallout," Public Opinion Quarterly, 29 (1965), p. 285.

<sup>10</sup>Johan Galtung, "Foreign Policy Position as a Function of Social Position," Peace Research Society (International) Papers, 2 (1965), pp. 206-231.

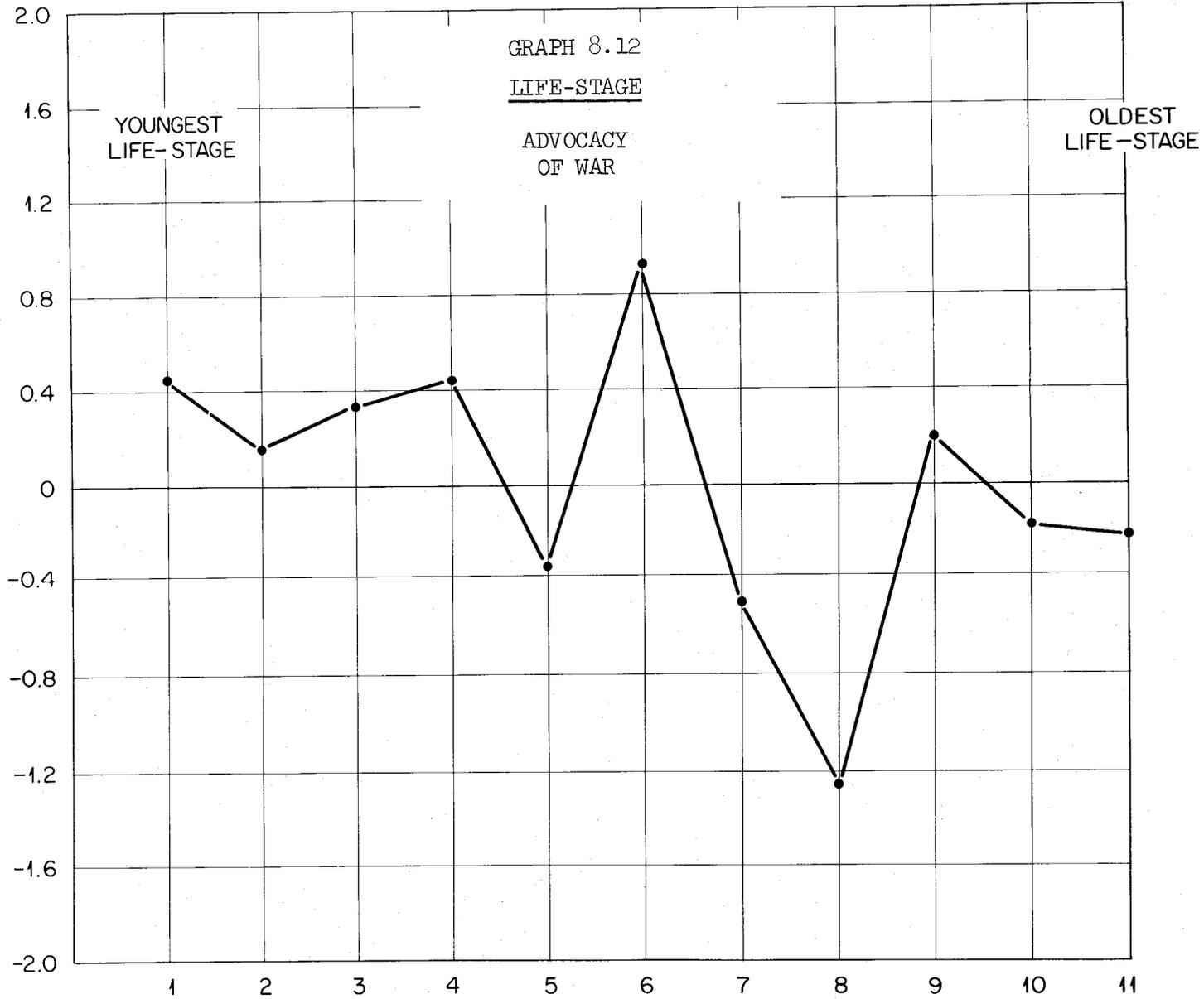
of demographic dimensions, including age, and are conceptually placed along a gradient which begins at the "social center" and moves outward to the "social periphery." In Galtung's definitions, both of the polar life-stages are rated as indicators of location at the periphery while the middle life-stages indicate location at the social center.<sup>11</sup> In his own research, as well as that of his students, Galtung found that his center-periphery index was significantly associated with a number of foreign policy attitudes among European respondents.<sup>12</sup> One may be critical of the utility of Galtung's concepts especially when transferred from smaller, relatively homogeneous European nations to the larger American society. In the case of the Military Capability question-set in Graph 8.11, however, there is some evidence of the kind of age-related attitudinal polarity which Galtung's index predicts. Whether or not these data actually suggest an American center-periphery phenomenon is, of course, a problem for future research.

The data for the Advocacy of War question-set are given in Graph 8.12. No clear age trend is apparent in these data. Although there is a slight tendency for the support of this kind of policy to decrease with age through the eighth life-stage with the notable exception of the sixth life-stage, the oldest three life-stages run counter to the trend. To

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<sup>11</sup>Ibid., p. 217.

<sup>12</sup>Ibid.; Nils H. Halle, "Social Position and Foreign Policy Attitudes: A Comparative Study of France, Norway and Poland," Journal of Peace Research, 1966, pp. 46-74; Johan Galtung, "Rank and Social Integration: A Multidimensional Approach," in Joseph Berger, Morris Zelditch, and Bo Anderson (eds.), Sociological Theories in Progress. New York, Houghton Mifflin, 1966, pp. 145-198; Johan Galtung, "Social Position, Party Identification and Foreign Policy Orientation: A Norwegian Case Study," in James N. Rosenau (ed.), Domestic Sources of Foreign Policy. New York, The Free Press, 1967, pp. 161-193.



some extent, the oldest and youngest life-stages are more similar to each other than they are to the middle life-stages, conforming to the polarity hypothesis forwarded by Galtung and others. The fluctuations among the middle groups, however, would tend to disconfirm any dominant curvilinear trend, such as that found in the Military Capability question-set.

A pair of opposing hypotheses from the literature of gerontology research may be tested with this question-set. In two separate studies, one by Rosen and Neugarten and the other by Wallach and Green, it was found that older persons are generally more passive in their orientation toward the environment.<sup>13</sup> This may be translated into the following hypothesis:

H<sub>25a</sub>: The older the life-stage the lower the level of Advocacy of War.

Kastenbaum, however, concluded a study with the finding that as age increases there are measurable declines in inhibitions and propensity to delay actions;<sup>14</sup> in terms of this question-set, Kastenbaum's finding may be translated as follows:

H<sub>25b</sub>: The older the life-stage the higher the level of Advocacy of War.

Both of these hypotheses receive partial verification from the pattern of data in Graph 8.12. The downward trend accompanying age which, as noted

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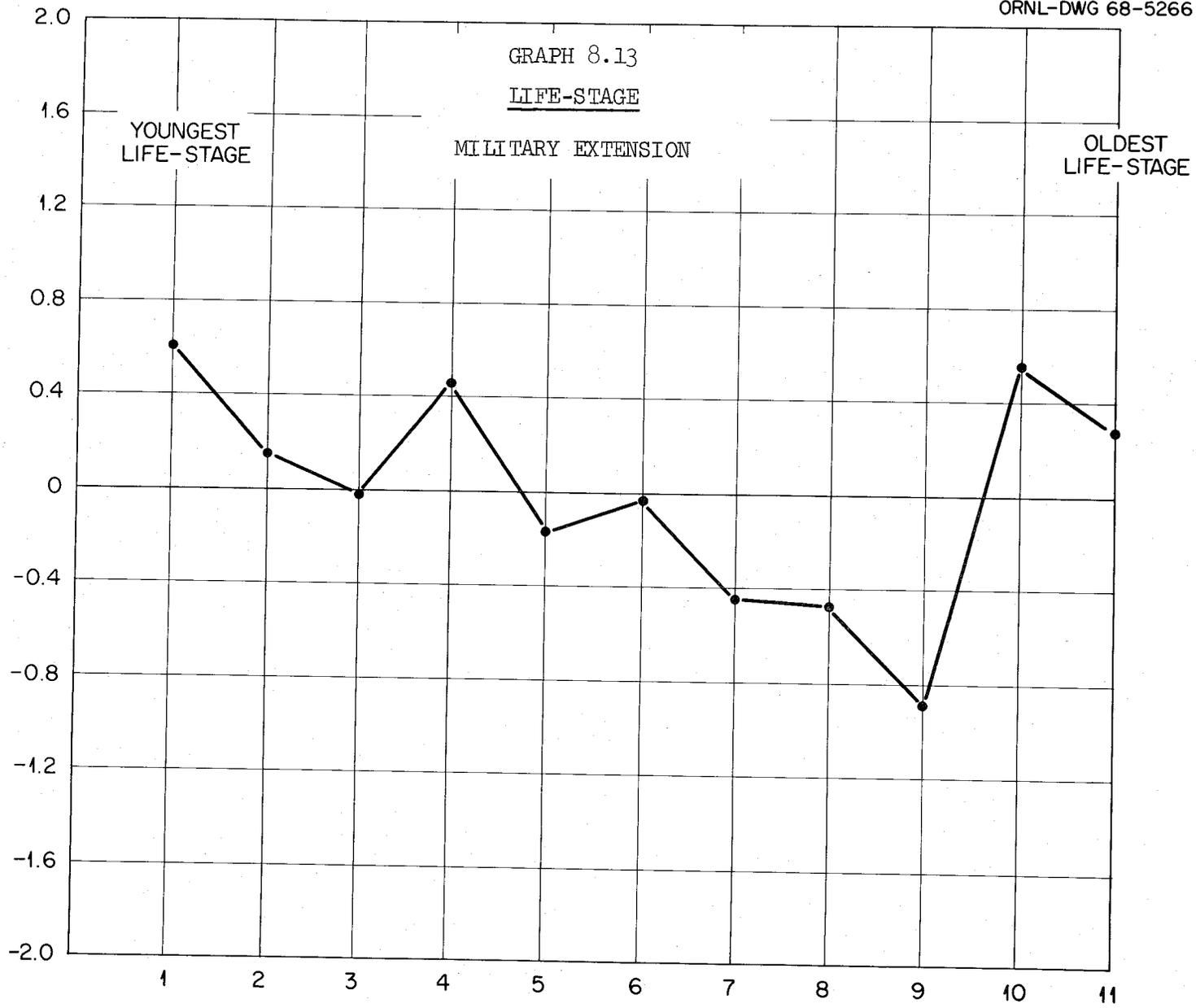
<sup>13</sup>Jacqueline L. Rosen and Bernice L. Neugarten, "Ego Functions in the Middle and Late Years: A Thematic Apperception Study of Normal Adults," Journal of Gerontology, 15 (1960), p. 65; Michael A. Wallach and Leonard R. Green, "On Age and the Subject Speed of Time," Journal of Gerontology, 16 (1960), p. 74.

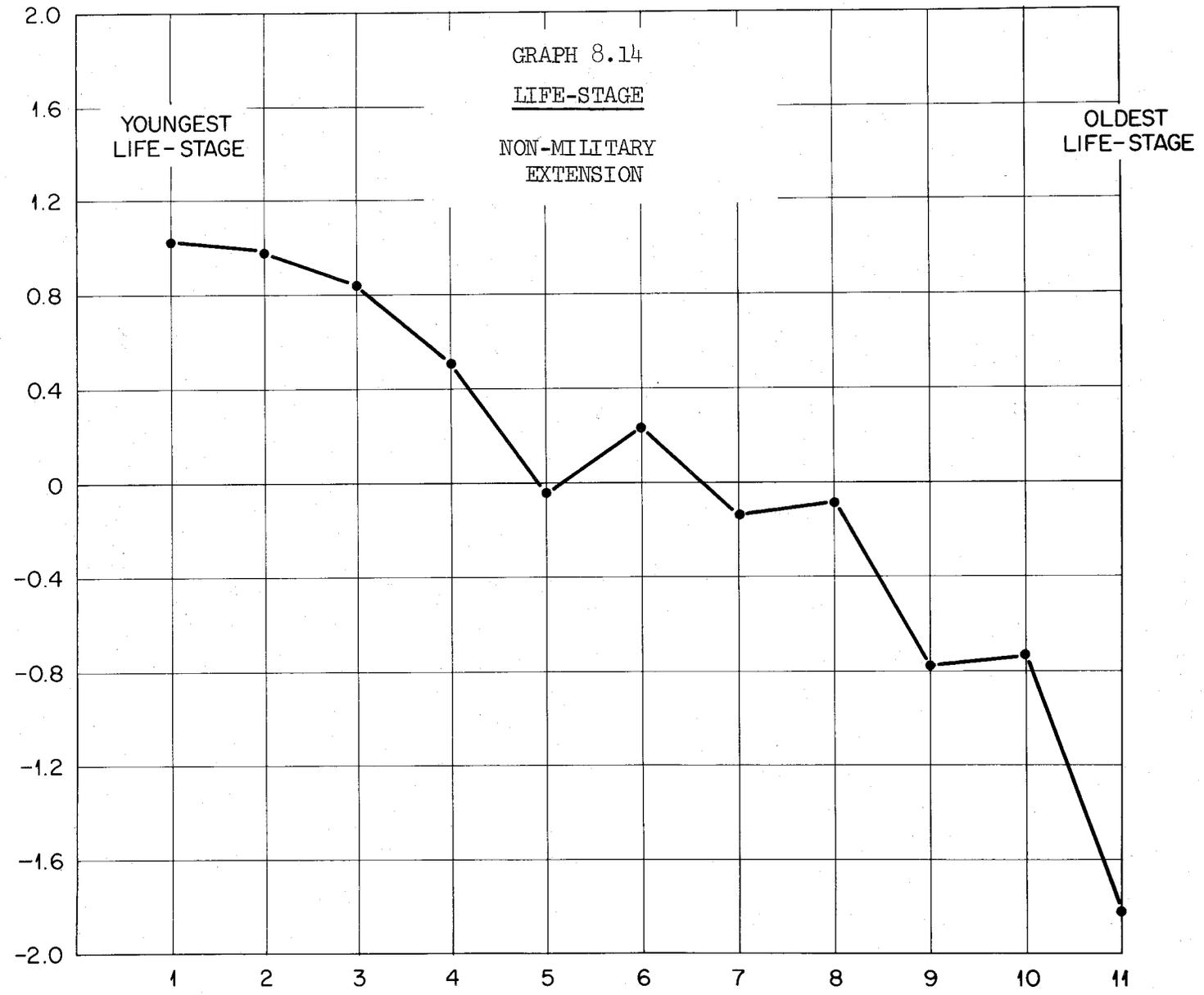
<sup>14</sup>Robert Kastenbaum, "The Structure and Function of Time Perspectives," Journal of Psychological Research, 13 (1963), p. 103.

above, takes place through the eighth life-stage, supports the first of the two hypotheses. The increase in Advocacy of War which then takes place for the last three life-stages supports the second hypothesis. One interpretation of this kind of a "mixed verification" of life-stage hypotheses is that there are certain kinds of behavioral phenomena which do not operate in a linear fashion over the course of the entire life cycle, but only for parts of the life cycle. Thus the linear decrease in Advocacy of War takes place over the course of the first eight life-stages but not for the remaining ones.

The above phenomenon may be more clearly seen in Graph 8.13, which contains the life-stage data for the Military Extension question-set. In this graph there is a distinct downward trend in levels of support for this kind of policy orientation over most of the life cycle; the oldest two life-stages, however, have significantly higher levels of endorsement of Military Extension. The two gerontological hypotheses tested with the Advocacy of War question-set,  $H_{25a}$  and  $H_{25b}$ , can again be tested with the Military Extension question-set. As can be seen from a comparison of Graphs 8.12 and 8.13, the results of the tests are similar in both instances. A noticeably linear downward trend is present over much of the life cycle; for the oldest life-stages, however, there are substantial increases in endorsement of both Advocacy of War and Military Extension.

The data for the final question-set, Non-Military Extension, are presented in Graph 8.14. The aging process trend is quite clear: the older the life-stage the lower the level of support for foreign aid programs. It is interesting to note that the two gerontological hypotheses considered for the previous two attitudes may be tested again here. While these





hypotheses had similar results for both Advocacy of War and Military Extension, the results are somewhat different in the case of Non-Military Extension. The first hypothesis, it will be recalled, stated that since older persons are generally more passive with respect to the environment, there will be a decrease in support for policies aimed at affecting the foreign policy environment. When this hypothesis is tested with the Non-Military Extension question-set, the results are positive: there is a linear downward trend in this attitude.

The second hypothesis stated that since older persons become less inhibited and less inclined to moderate or delay their actions, there will be an age-related increase in support for manipulative foreign policies. The phenomenon described by this hypothesis was found to exist in Advocacy of War and Military Extension, but only for the oldest life-stages: It does not occur, however, in the case of Non-Military Extension, where the linear downward trend in support for foreign aid programs continues across the whole life cycle. This difference between the last question-set and the previous two is not difficult to explain. Advocacy of War and, to a lesser extent, Military Extension are policy orientations which potentially have immediate effects. Foreign aid, on the other hand, is a highly future-oriented and relatively "delayed" policy alternative which might not appeal to the oldest life-stage groups. Thus the lack of inhibition found by Kastenbaum, which might explain the old age endorsement of Advocacy of War and Military Extension, does not yield high levels of Non-Military Extension due to the substantive content of the question-set, foreign aid.

### 8.3 Life-Stage Effects in Multiple Attitude Trends

As pointed out in Chapter Seven, the number of attitude clusters which could be investigated here are many: considering only pairs or triads of the twelve question-sets included in this study would yield over two hundred comparisons. Our purpose in extending this analysis past the stage of single attitude trends is twofold. Substantively, it can be demonstrated that the empirical regularities which have been seen to be associated with the age variable extend to patterns of attitudinal covariance. Methodologically, it can be demonstrated that the technique of cohort analysis is a powerful tool which can be used to obtain interesting and meaningful results in a variety of applications. Future studies which concentrate primarily upon the content of attitudes toward foreign policy are left the task of investigating all the possible combinations of the attitudes studied here; the examples of multiple attitude trends presented in this section are intended to be illustrative of our twofold purpose.

This phase of the investigation begins by considering multiple attitude hypotheses which can be found in the research literature on the aging process, and which can be tested with the foreign policy data. Lorge and Helfant, for example, concluded generally that there are no attitudinal differences between the members of different age groups.<sup>15</sup> The testable

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<sup>15</sup>Irving Lorge and Kenneth Helfant, "The Independence of Chronological Age and Sociopolitical Attitudes," The Journal of Abnormal and Social Psychology, 48 (1953), p. 598.

hypothesis may be stated as follows:

H<sub>26</sub>: There are no life-stage differences for any of the twelve foreign policy attitude question-sets.

This hypothesis may be quite clearly rejected on the basis of the discussions in Section 8.2.

A more directed hypothesis has been suggested by Gergen and Back in a study of a number of different kinds of attitudes, some of which were directly relevant to matters of foreign policy. They found that the older a person was the more he favored "total" solutions to problems while at the same time the less he favored partial solutions.<sup>16</sup> In terms of the foreign policy question-sets, the Gergen and Back hypothesis can be operationalized as follows:

H<sub>27</sub>: The older the life-stage the higher the level of endorsement of Advocacy of War and the lower the level of support for Non-Military Extension.

This hypothesis is only partially verified by our data, as indicated by Graph 8.12, and by the discussion of hypotheses H<sub>25a</sub> and H<sub>25b</sub>. For the very oldest life-stages there is the negative relationship between Advocacy of War and Non-Military Extension predicted by hypothesis H<sub>27</sub>. For most of the life-stages, however, the relationship between the two question-sets is positive, with both age trends demonstrating a downward curve.

Another substantive hypothesis which may be operationalized in terms of multiple question-sets comes from a study of the relationship between

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<sup>16</sup>Kenneth J. Gergen and Kurt W. Back, "Aging, Time Perspective, and Preferred Solutions to International Conflicts," Journal of Conflict Resolution, 9 (1965), pp. 178-181.

anxiety about war and support for various defense measures, particularly civil defense programs. In this study Levine and Modell found a general decline in anxiety about war associated with increasing age.<sup>17</sup> There are three question-sets in our data base which can be used to test this hypothesis:

H<sub>28</sub>: The older the life-stage the lower the levels of:  
 Expectation of Crisis Escalation and Expectation of  
 War and Expected Local Nuclear Danger.

The life-stage data for these question-sets are presented in Graphs 8.3, 8.4, and 8.7, respectively. Age trends approximating linear curves in the predicted direction are found for both Expectation of War and Expected Local Nuclear Danger; no clearly interpretable life-stage trend is observable for Expectation of Crisis Escalation. These findings indicate one of two things. Either the influence of age upon declining levels of anxiety concerning war is not strong enough to affect a wide variety of anxieties, including Expectation of Crisis Escalation, or this latter question-set is just not on the same dimension as the other two. It may be, for example, that the perception of a particular crisis is dependent upon one's knowledge of the details of the specific situation and/or one's general knowledge of the foreign policy environment rather than upon general anxiety about war.

A more generalized explanation of the lack of the age trend in Expectation of Crisis Escalation would be that it is the nature of the crisis

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<sup>17</sup>Gene N. Levine and John Modell, "American Public Opinion and the Fallout-Shelter Issue," Public Opinion Quarterly, 29 (1965), p. 276.

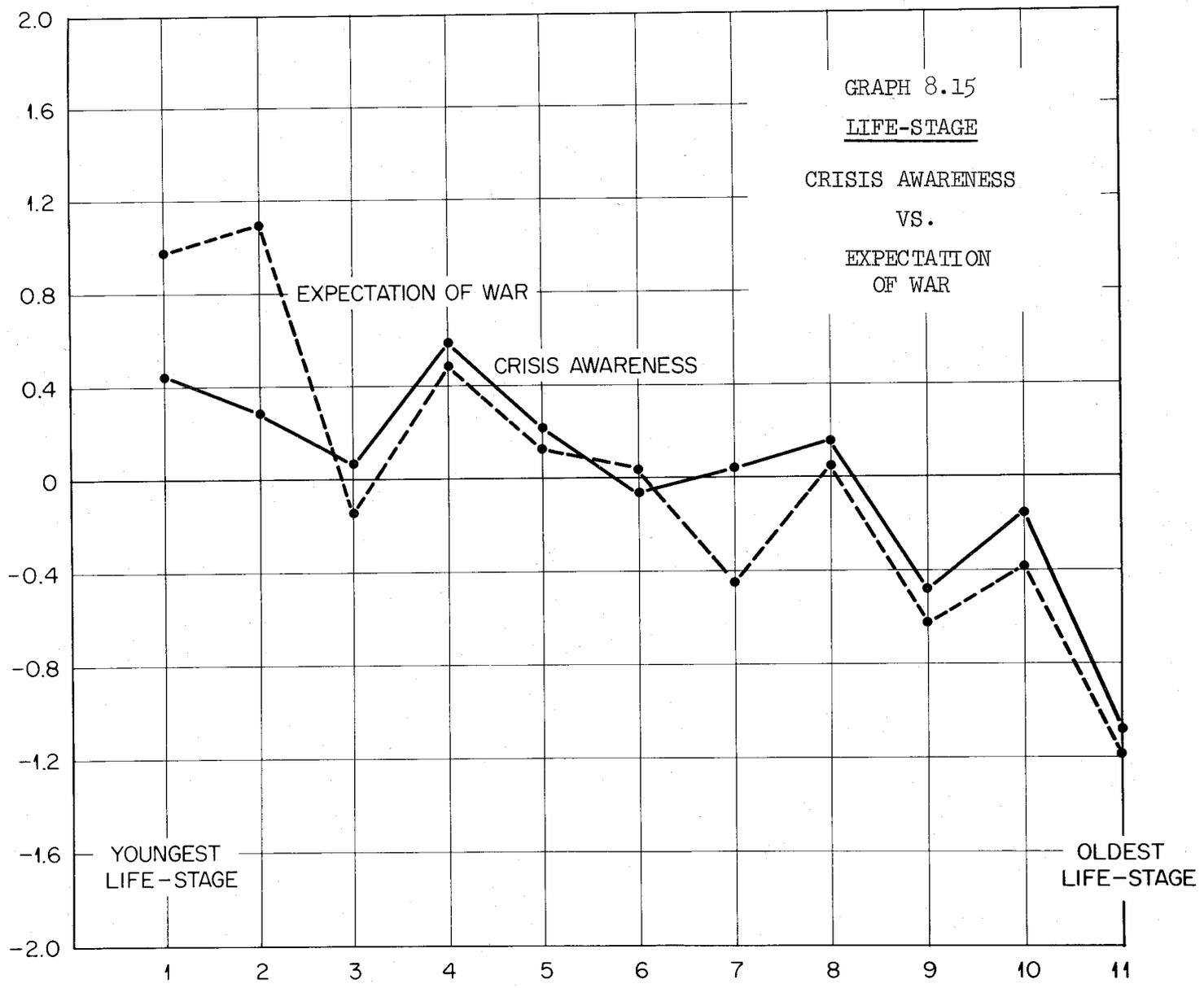
itself which leads to differential expectations across crises, rather than age or any other sociological or psychological attribute. The analysis of these question-sets, therefore, generally affirms Levine and Modell's age-war anxiety hypothesis.

In considering further examples of the ability of cohort analysis to isolate multiple attitude trends, it should be acknowledged that, although phenomena which vary with age can be observed, it is equally important to verify behavior patterns which are relatively constant across life-stages. One specific instance of this kind of pattern pertains to the perceptual mechanisms by which certain kinds of attitudes are influenced. In Graph 8.15 the Expectation of War and Crisis Awareness question-sets are presented together. It is clear that, although these attitudes are each linearly related to the aging process, the interrelationship between them is fairly constant across the life cycle: levels of Crisis Awareness are associated with similar levels of Expectation of War. The explanation of causality between these two attitudes may be in either direction.

While cohort analysis does not yield an empirical choice between the two plausible causal hypotheses, the addition of the life-stage variable would have to be as an independent variable. On the one hand, aging (through the vehicle of disengagement, for example) could lead to a diminution of the awareness of foreign policy crises which then leads to a lower level of Expectation of War. On the other hand, aging leads to a lowering of the belief that war is coming<sup>18</sup> and, therefore, inhibits the need to maintain an awareness of the foreign policy situation. (Of course, there is a third plausible hypothesis which states that the two question-sets are spuriously

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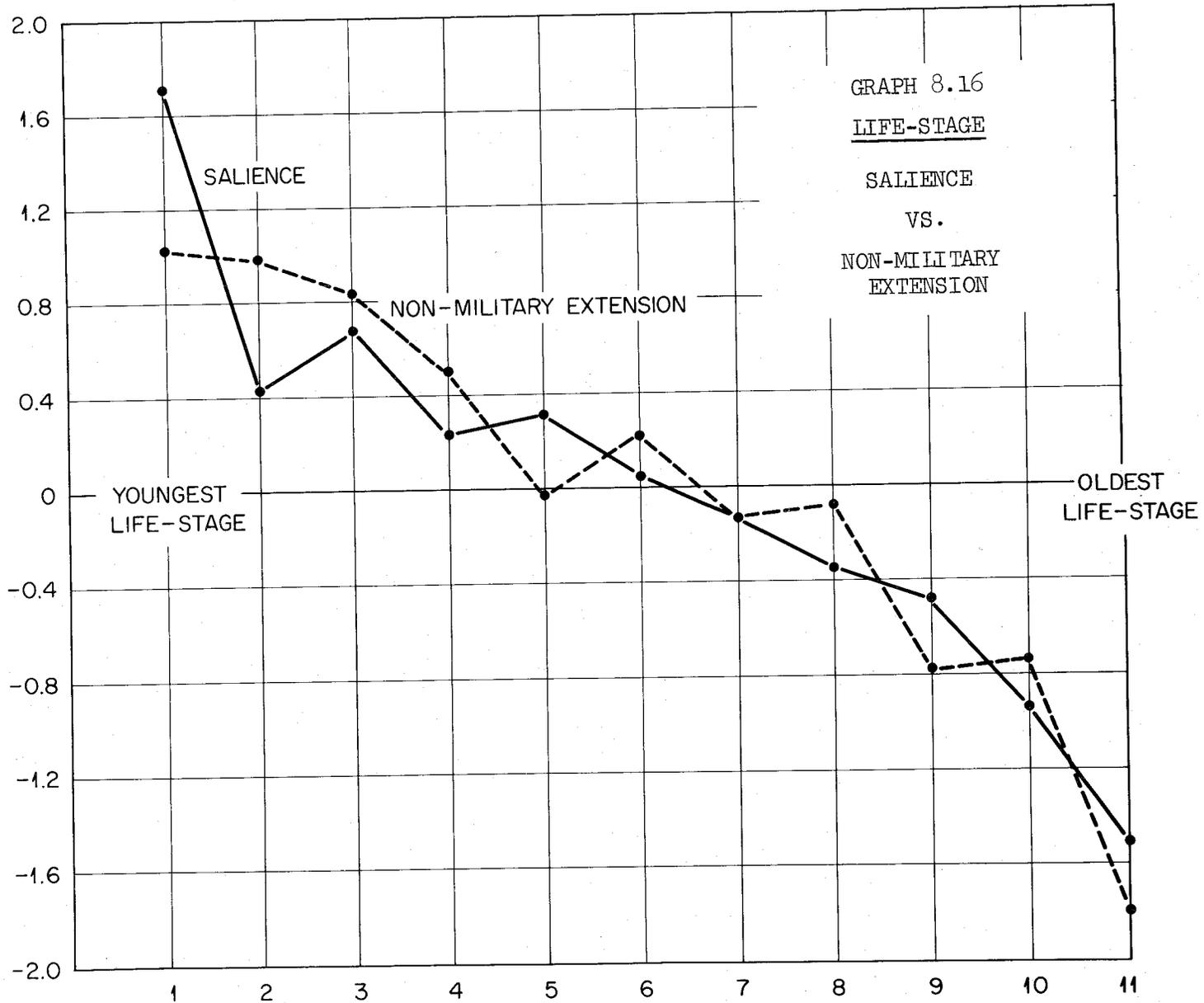
<sup>18</sup>See the discussion of hypothesis H<sub>19</sub>.



correlated due to their covariation with aging.) The life-stage information yielded by the cohort analysis, therefore, can suggest significant causal hypotheses located in the context of longitudinal data, which may then be researched and tested by subject matter specialists in the area of foreign policy behavior.

A final example of the potential of cohort analysis for the investigation of multiple attitude trends concerns the significant policy question of the conditions under which the public might be expected to support particular kinds of policy alternatives. For example, under what conditions will the public support or oppose American foreign aid programs? One answer to this question is given in Graph 8.16, which shows the covariation between foreign policy Saliency and the foreign aid Non-Military Extension question-set. The life-stage trends yielded by the cohort analysis indicate that support for foreign aid programs is strongly related to the general saliency attributed to problems of foreign policy. These life-stage data also indicate that although this convergence of saliency and support is itself fairly constant across the life cycle, the levels of these related attitudes are linearly related to the aging process. Since support for policies of Non-Military Extension diminishes as the general saliency of foreign policy problems diminishes, the search by policy makers for support for foreign aid programs should begin among those for whom foreign policy problems are relatively salient.

An alternative explanation is also possible. In earlier discussions of these individual question-sets it was observed that the decreasing level of Saliency might be explained by the disengagement phenomenon. The Non-Military Extension trend, however, has been accounted for not in terms of



disengagement, but in terms of the partial, relatively moderate, and future-oriented solution to problems which foreign aid programs provide--which, in turn, do not obtain widespread support among the members of older life-stages. Thus, these two question-sets may be only spuriously associated due to their individual relationships to the aging process. Since the two kinds of attitudes possess a fairly constant relationship at every life-stage, political appeals to population groups can be designed which recognize or use the fact that such a relationship exists.

As this discussion demonstrates, a variety of interesting and potentially useful multiple attitude relationships can be isolated using the cohort analysis of attitudinal data. Although a great many more such relationships could be investigated using these foreign policy data, our attention is now turned to the determination of the multiple attitude profiles of the life-stage groups through the construction of attribute-space.

#### 8.4 Multiple Attitude Life-Stage Profiles

The fourth element in the description of the life-stage foreign policy data, as was done in Chapter Seven, is the construction and interpretation of an attribute-space. The procedures for constructing the attribute-space were outlined in Chapter Seven (Subsection 7.4.1). The cell entries in Table 8.1 were compared against a threshold value of  $+0.5/-0.5$ . Scores equal to or greater than the larger threshold were given the "high" attribute, while scores equal to or less than the lower threshold value were given the "low" attribute. The attribute-space for the life-stage data is given in Table 8.2. As was done in the discussion of the cohort attribute-space, the individual pattern of attributes will first be described, and then an

TABLE 8.2  
 ATTRIBUTE-SPACE FOR LIFE-STAGES<sup>a</sup>

Question-Set	Life-Stage										Life-Stage
	1	2	3	4	5	6	7	8	9	10	
1. Salience	H1		H2							L2	L1
2. Crisis Awareness				H							L
3. Expectation of Crisis Escalation		L1				H1			H2	L2	
4. Expectation of War	H2	H1							L2		L1
5. Negative Economic Expectations	H2						L2		L3	L1	H1
6. Expected Local Nuclear Danger	H4	H1				H3	H2			L2	L1
7. Negative Image of U.S.S.R.		L2	L1				H3			H2	H1
8. Perceived Soviet Superiority								(L)	(H)		
9. Military Capability					H1		H2				H
10. Advocacy of War						H		L			
11. Military Extension	H1								L	H2	
12. Non-Military Extension	H1	H2	H3	H4					L2	L3	L1

<sup>a</sup>Derived from Table 8.1 using a threshold of +.5/- .5. Further details given in Subsection 7.4.1.

attempt will be made to construct the general characteristics of life-stage foreign policy profiles. In addition, we will also determine the correspondence between these data and the themes described in Chapter Two by which students of gerontology often characterize older persons: disengagement, rigidity, and time-perspective.

Younger life-stages have relatively high levels of cognitive participation in the domain of foreign policy and international relations as demonstrated by the first two question-sets, Salience and Crisis Awareness. Although this observation is not especially true for the awareness of international crises, it does strongly hold for the salience attributed to problems of foreign policy by the younger life-stages. The levels of negative expectations on the part of these younger groups, with one exception, are uniformly high. The exception, Expectation of Crisis Escalation, has generated low levels of expectation for both the young and older age groups. A similar kind of observation may be made about Negative Economic Expectations: both the younger and the older age groups possess similar high levels of expectations on this attitude. Nonetheless, the profile of attitudes of the younger age groups show that the levels of negative expectations are generally characterized by the "high" attribute.

For the perceptions of the Soviet Union a mixed pattern is found. The youngest life-stages have the lowest levels of Negative Image of the Soviet Union, whereas there is no dominant trend for Perceived Soviet Superiority. A similar kind of mixed pattern emerges in the case of the four policy orientations. For two of these policy attitudes, Military Capability and Advocacy of War, the youngest age groups have neither the highest nor the lowest levels of endorsement for these policies. There is, however, a

clearer pattern of policy endorsement for the two "extension" question-sets, Military Extension and Non-Military Extension. The youngest life-stages possess the highest levels of support for these two extension policies. The attribute-space entries for the Non-Military Extension question-set are particularly interesting in that appreciably high levels of such policy endorsement were given by the four youngest life-stage groups, and in rank order of their age.

No major consistent pattern is found for the middle life-stages. For half of the question-sets these middle age groups have neither the highest nor the lowest levels of attitude endorsement. It is important to remember, at this point, that our procedures for entering an "H" or an "L" did not eliminate the possibility that any group could receive such a label; that is, we did not choose only the one highest or the one lowest group, but entered a label for every group whose score was above or below a certain threshold. Thus the observation that the middle life-stage groups do not have entries for six of the twelve question-sets indicates that their attitudes are in fact in the middle range of z-scores, most often falling between the scores of the younger and older life-stages. These middle life-stages, however, do have fairly consistent high levels of negative expectations, except for the Negative Economic Expectations question-set. Finally, the middle groups possess the highest endorsement of the two policy question-sets which are oriented toward American strategic defense: Advocacy of War and Military Capability. In the case of the latter, however, the oldest of the middle groups yields the lowest level of policy endorsement as well.

For the attribute-space profiles of the oldest life-stage groups the cells of the matrix are again densely populated with Highs and Lows. The

older life-stages may be characterized by low levels of cognitive participation in the environment of foreign policy and international relations, as indicated by the Saliency and Crisis Awareness question-sets. However, no overall pattern emerges for the negative expectation sets. Levels of Expectation of War and Expected Local Nuclear Danger are consistently low. For the remaining two expectation question-sets, however, the older life-stages yield both highs and lows. In terms of perception of the Soviet Union, the oldest life-stages have the highest levels of Negative Image of the Soviet Union. To a lesser extent, the locus of high Perceived Soviet Superiority is also toward the older end of the life-stage continuum.

Finally, among the policy orientations, the most dominant trend is in the Non-Military Extension question-set. The oldest three life-stages possess the lowest levels of support for this foreign aid policy option. While the oldest group has the lowest level of Advocacy of War, its attitudes on the policy of Military Extension are both low and high.

On the basis of these attribute-space profile descriptions, a number of characterizations can be drawn which describe general behavioral trends associated with the aging process. The youngest life-stages appear to be relatively internationalist; this characterization is given both by the high levels of cognitive participation in the domain of foreign policy and by the profile of preferred policy alternatives. These younger persons may also be described as system-oriented, as revealed by the high levels of negative expectations based on perception of the environment and by the low level of negative image of a major system actor. In terms of their policy preferences, these younger persons may be characterized not only as internationalist, as mentioned above, but also as oriented toward multilateral

interactions of a nonaggressive nature. In terms of the various themes involved in the study of aging, these younger groups may be characterized as (a) highly engaged, as indicated by the internationalist and multilateral nature of their attitudes; (b) relatively flexible, as indicated by the system-oriented nature of their expectations, as well as by the "soft" rather than "hard" line taken in their policy orientations; and (c) future-oriented, as indicated by their unequivocally high support for foreign aid programs which most often are expected to have long-range rather than short-range payoffs.

Few general characterizations can be made about the middle life-stage groups, as their attitudes most often were neither in the highest nor the lowest ranges. However, in terms of their perceptions of foreign policy and international relations, these middle groups appear to be both system and actor oriented, as evidenced by the high levels of certain negative expectations as well as by the uniformly high levels of Negative Image of the Soviet Union. In terms of their policy preferences, these middle groups may be characterized as both aggressive and defense oriented, as their endorsement of both Advocacy of War and Military Capability are the highest of all the life-stage groups.

The oldest life-stage groups appear as relatively uninvolved in matters of foreign policy, as evidenced by their low levels of cognitive participation in this domain. In terms of threats emanating from the system older persons have both high and low levels of negative expectations. These groups also have relatively consistent high levels of negative perceptions of the Soviet Union. On balance, therefore, it may be said that older persons are relatively actor oriented, although they do perceive threats from

the environment as well. Finally, the policy orientations of these older life-stages present another somewhat mixed profile. Across the four question-sets, the older persons give fairly low levels of endorsement with the exception of Military Extension for which there are both high and low levels.

In assessing the utility of the various gerontological themes which have been described in this study, particular attention should be given to the ways in which the themes provide explanations for the behavior of these older groups. This is so because the various characterizations which many scholars have applied to the aging "process" have been primarily based upon observations of older persons. Observations of younger persons have been made only secondarily, and for purposes of comparison. Consistent with gerontological research, our data indicate that older persons are relatively disengaged. In terms of their low levels of cognitive participation in the domain of foreign policy, as well as in terms of their low levels of support for the four policy orientations, these older life-stage groups do not appear to expend much attitudinal energy in this domain of political behavior.

Also consistent with previous research is the finding that the older groups feel threatened to some extent by the environment generally, but by a definable political actor specifically. The allocation of the source of threat to an identifiable actor is consistent with the rigidity and dogmatism notions which have been associated with the aging process. To the extent that particular actors can be ascribed with the major share of threat production, for example, a "scapegoat" orientation, then solutions to problems can be more rigidly formulated and executed.

Finally, our data are partially consistent with the characterization of the time perspectives held by older persons. On the one hand, older persons have been found to be "apocalyptic" in desiring immediate and forceful solutions to perceived problems. The data presented in this chapter, contrary to the empirical data presented by others, show that older people have low rather than high levels of Advocacy of War. On the other hand, the possession of a foreshortened future time orientation predicts that older persons would not support policies which are future-oriented. The data analyzed here show this to be the case in terms of the Non-Military Extension question-set, which encompasses attitudes toward foreign aid. When foreign aid programs are perceived as long-range payoff policies, the finding that the three oldest life-stage groups have the three lowest levels of support for this kind of policy is consistent with the time perspectives theme of gerontological research.

## CHAPTER NINE

### THE CONFRONTATION OF THE AGING AND GENERATIONAL EXPLANATIONS

#### 9.1 Introduction

The two previous chapters have demonstrated that the aging and generational interpretations of the age variable can each provide meaningful explanations of patterns of political behavior. That is, the graphs, hypotheses, and attribute-space analyses have shown that trends in foreign policy attitudes are related to the processes of generational succession as well as to the effects of the aging process. The comparative analysis of the strength of each of these age effects is the task of the present chapter.

Interest in separating out the effects of cohort and life-stage is not new, as pointed out in Chapter Two. The dialogue which has been carried out, however, has often been in the context of limited empirical evidence and, more important, inconclusive evidence. Cross-sectional studies of age differences have been interpreted by various scholars as identifying, demonstrating, or proving either a generational or a life-cycle phenomenon. In some cases the designation of one or the other effect is quite arbitrary; in other cases the conclusion is based on (a) complex data manipulations, or (b) consistency of cross-sectional findings with theoretical assumptions. Both of these kinds of findings are necessary and useful in the beginning stages of interest in a particular research topic because they serve to delimit the broad outlines of the research problem as well as to generate interesting and testable hypotheses. As Chapter Seven and Chapter Eight demonstrate, the present study has greatly benefited from the hypotheses and insights provided by these earlier cross-sectional studies.

In contrast to these groundbreaking studies, however, theoretical progress in any given area demands empirical evidence which should not allow for a compromise between the alternative rival hypotheses. In other words, empirical data which purports to establish a generational effect should not be capable of being equally and plausibly interpreted in life-stage terms. This point was forcefully made in a recent article by the biophysicist John Platt, when he stated that "scientists these days tend to keep up a polite fiction that all science is equal."<sup>1</sup> That such is truly not the case, Platt argues, is indicated by the fact that certain fields of physics have made greater and faster progress than others; this in turn is a result of the nature of the scientific rigor which is traditional in the various fields. For Platt, the basis for strong scientific inferences is in the rigorous application of the following three steps:

- 1) Devising alternative hypotheses;
- 2) Devising a crucial experiment (or several of them), with alternative possible outcomes, each of which will, as nearly as possible, exclude one or more of the hypotheses;
- 3) Carrying out the experiment so as to get a clear result.<sup>2</sup>

The second of the above steps is a particularly significant one in the study of the behavioral manifestations of the age variable. Cross-sectional research does not allow for the exclusion of the major alternative hypothesis.

The problem of rejecting the alternative hypothesis, or at least clarifying the relative power of each hypothesis, is magnified when the empirical results are in the same direction. An example is the foreign policy Salience question-set, portrayed in Graph 7.1 and Graph 8.1. The direction from historically youngest to historically oldest cohort is toward decreasing

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<sup>1</sup>John R. Platt, "Strong Inference," Science, 146 (1964), p. 347.

<sup>2</sup>Ibid.

Saliency; similarly, the trend from chronologically youngest life-stage to oldest life-stage is also toward decreasing Saliency. Since both the cohort and life-stage alternative hypotheses are found to yield the same general pattern of results, the assessment of the power of each of the explanations is more difficult. If these results were found in a cross-sectional study, the distinction between the cohort effect and the life-stage effect would be empirically impossible.

As described in Chapter Four, the technique of cohort analysis allows the researcher to overcome these difficulties of inference. With the use of cohort analysis the very same data set can be analyzed for both the cohort and life-stage effects. The generational trends are examined across life-stages, and thus the effects of the aging process are controlled for. The life-stage trends are examined across generational groups, and thus the effects of generational succession are controlled for.<sup>3</sup> By constructing a comparative analysis of the generational and life-stage trends yielded by cohort analysis, empirical evidence of the power of each alternative hypothesis can be located. Such evidence would not be compromised by the structure of the research design.

The final introductory comment to these comparative analyses concerns definitions. The "power" of cohort or life-stage effects contains two separate but related phenomena. The first is the "strength" of the effect, and the second is the "saturation" of the effect. The "strength" of an effect refers to its power in explaining variance in patterns of behavior in populations or samples of populations. In terms of the data contained in this

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<sup>3</sup>The structure of Table 4.1, the "Cohort Analysis Matrix," demonstrates the manner in which this "controlling" process is carried out.

chapter, the analysis of the "strength" of the two effects becomes the analysis of the attitude patterns for the total samples. To what extent, it is asked, can patterns of behavior observed for the total samples across the 1946-1966 period be accounted for in aging process or generational terms?

The "saturation" of an effect refers to the power of the effect throughout various strata of the population. If an effect is seen to significantly explain variance for total samples, is the effect seen to be equally powerful in explaining variance for subgroups into which the sample may be stratified? Chapter Four indicated that the two control variables of sex and education would be employed in this study. To briefly reiterate that discussion, we observed that of the various characteristics of respondents regularly included in national public opinion surveys, only sex and education were longitudinal in nature. That is, a sample of twenty-year-old men in 1946 is, theoretically, a sample of the same persons represented by a sample of thirty-year-old men in 1956. Since the characteristics of sex and education for samples of adults do not change across time, cohort analyses of these subsample control groups can legitimately be constructed. Other social indicators which are longitudinal in nature such as race, religion, and national origin do not regularly appear in the national sample surveys over the 1946-1966 period.

In order to obtain observations of the "saturation" of the age effects, separate cohort analyses were constructed for each of the following five control groups: males, females, college educated, high school educated, and grammar school or less.<sup>4</sup> Thus for each of these five additional cohort

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<sup>4</sup>The education groups have the following definitions: college includes some college, college degree, or postgraduate work; high school includes both some high school and completed high school; grammar school ranges from no education through completion of grade eight.

component control groups. Consequently, the estimation of the degree to which the effects of life-stage and cohort saturate the various control groups must be done group by group; once these separate estimates are made, they can then be combined into a meaningful average or representative value.

## 9.2 The Relative Strength of the Cohort and Life-Stage Effects

In confronting the cohort and life-stage explanations of the age variable against one another, two kinds of statistical data will be employed, both of which were explained in detail in Chapter Six. First, an analysis of statistical deviation is employed to determine the relative homogeneity of behavior associated with the cohort and life-stage effects. The working proposition underlying this phase of the analysis is that the smaller the amount of statistical deviation, the greater the homogeneity of the attitudes within a group, and therefore the stronger the effect. Consider a hypothetical extreme situation, for example, in which life-stage is the sole cause of an attitude, and in which the effect of life-stage is maximally powerful. In such a situation it would be expected that everyone within a given life-stage group shares the same attitudes; the mean score would be the score obtained by every member of the group. There would, therefore, be no deviation at all, and the average mean deviation across all sampling points would be zero. Although we do not expect the effects of the age variable to be as pervasive as in this hypothetical situation, the smaller the value of the mean deviation across the years 1946-1966, the more powerful the effect.

analyses, tables of mean z-scores were obtained, identical in structure to the cohort and life-stage data reported in Table 7.1 and Table 8.1. From these data the sets of single attitude graphs representing the twelve foreign policy question-sets were constructed for each control group. Since the purpose of including the analysis of control groups is to determine the saturation of the effects of age, as contrasted with the analysis of the behavior of the control groups per se, the sixty attitude graphs will not be presented. The interested reader will find the complete mean z-score data in tabular form, for all five control groups, in Appendix B.

The determination of the saturation of cohort and life-stage effects, therefore, depends upon the power of the effects to explain variance in patterns of behavior across the five control group strata. In considering the relationship between the notions of "strength" and "saturation" it is necessary to point out that in this case the whole does not necessarily equal the sum of the parts. The fact that the data for the total samples are comprised of the male group data and the female group data does not mean that the trends for the total samples will necessarily conform to the sum or the average of the component groups. Several considerations can produce such a situation. The number of respondents in each of the control groups vary, and therefore the behavior of one control group may affect the behavior of the total sample disproportionately. The behavior patterns of the different control groups may interact in ways which produce differing amounts of variance to be explained; for example, there can be greater variance in the total sample than the combined variance of each of the control groups. It should not, therefore, be expected that the statistics which describe a trend curve for the total samples are merely the average of the statistics which describe the curve for the

The second set of test data, polynomial regressions, has been computed for each of the age curves plotted in the graphs of Chapter Seven and Chapter Eight. For any given curve a number of different polynomials can be calculated. A first degree polynomial can be fitted to a given curve to estimate the amount of variance explained by a linear curve (straight line). Assuming that all the points on the original curve do not fall on the straight line, the analyst can then compute a second degree polynomial, and thereby determine the additional variance which is explained by the resultant quadratic equation or line. This process can continue until most of the variation is accounted for. If a curve has eleven original points (as with the life-stage graphs), then a ten-segment line will connect all of the data points. Of course not all curves can be totally explained by polynomial regressions; however, as the number of line segments for a given polynomial approaches the number of data points, the amount of variance accounted for approaches one hundred per cent. We are not interested in extending the analysis to such lengths; rather, our interest here is in the amount of variation which can be explained by first, second, and third degree polynomials. By constructing the three sets of polynomials for all question-sets and all control groups, the polynomial regressions become a basis for the comparative analysis of the age variable across all life-stage and cohort groups.

Table 9.1 includes the results of the first test, that of the analysis of mean deviations. Each entry in the first two columns represents the average deviation from the mean z-scores originally presented in Table 7.1 and Table 8.1. To what extent, it is asked, is there less deviation, that is, greater homogeneity of effect, for cohort as compared

to life-stage? Table 9.1 includes the deviation data for each of the twelve question-sets, and for the two manifestations of the age variable. For the Salience question-set, for example, the two deviation scores of .48 and .47 indicate little difference in the strength of the two effects. Similarly, almost no difference is found in the case of Crisis Awareness.

In order to more clearly illustrate the relative strengths of cohort and life-stage as revealed by the analysis of mean deviations, it was decided to again use the technique of constructing an attribute-space. Although there may not be any confusion in interpreting the two columns of numeric data in Table 9.1, the use of an attribute-space in conjunction with the deviation analysis when it is extended to include the five control groups (in the next section), greatly clarifies the situation. The logic and technique of the construction of an attribute-space has been described in Subsection 7.4.1. In the present situation, three attributes are used: "L" for life-stage, "C" for cohort, and "O" for no difference. A threshold of .03 is employed to distinguish age differences from no differences: if the difference between deviation scores for a given question-set is equal to or less than .03, the "O" attribute is inserted. In the remaining cases, an "L" is inserted if the life-stage deviation score is smaller, and a "C" is inserted if the cohort deviation score is smaller.

A number of comments may be made about the attribute-space entries in Table 9.1. It is clear that neither cohort nor life-stage can be said to be the stronger effect across all twelve attitude question-sets. In fact, for four of the question-sets, neither effect may be considered stronger. On the other hand, of the remaining question-sets, it is clear that the effect of cohort is more often stronger than that of life-stage.

TABLE 9.1  
MEAN DEVIATION ANALYSIS FOR TOTAL SAMPLES

Question-Set	Cohort	Life-Stage	Attribute <sup>a</sup>
1. Salience	.48	.47	O
2. Crisis Awareness	.72	.71	O
3. Expectation of Crisis Escalation	.70	.65	L
4. Expectation of War	.51	.62	C
5. Negative Economic Expectations	.55	.71	C
6. Expected Local Nuclear Danger	.69	.87	C
7. Negative Image of U.S.S.R.	.49	.65	C
8. Perceived Soviet Superiority	.64	.61	O
9. Military Capability	.38	.75	C
10. Advocacy of War	.63	.61	O
11. Military Extension	.66	.71	C
12. Non-Military Extension	.49	.42	L

<sup>a</sup>The threshold for the attribute-space designations is .03. A difference less than or equal to the threshold is given the "O" (no difference) attribute. The "L" (life-stage) or "C" (cohort) attributes are assigned to the age group which has the smaller mean deviation.

For six question-sets there is greater homogeneity associated with cohort, while less variation is found for life-stage in only two question-sets.

The results portray a somewhat mixed pattern for the twelve question-sets. For the two question-sets which may be considered as cognitive involvement in the domain of foreign policy, Salience and Crisis Awareness, neither effect of the age variable predominates. For the four negative expectation question-sets the cohort effect is quite dominant, although the opposite is true for responses to Expectation of Crisis Escalation. As was pointed out in Chapter Eight, it may well be that responses to this particular question-set are more closely tied with the crisis itself, rather than with any historical or generational influence. In such a situation, it might be expected that the influence of life-stage upon reaction to the crisis would be greater than the influence of the generational factors.

Another mixed situation is presented by the two question-sets pertaining to perceptions of the Soviet Union. While the cohort effect is stronger for Negative Image of the Soviet Union, neither effect predominates for Perceived Soviet Superiority. Finally, the four policy preference question-sets offer examples of all three attributes. The Military Capability and Military Extension question-sets are both characterized as cohort dominant attitudes, while the remaining two question-sets are divided between life-stage and no difference.

The second phase of our analysis of the strength of the cohort and life-stage effects is based upon polynomial regression data. Our interest in the information yielded by the computation of the regressions is in the amount of variance explained by first, second, and third degree

polynomials. The complete set of data is presented in Table 9.2. In this table, the variance accounted for is represented as a percentage of the total variance; data are presented for the totals as well as for each of the five control groups. Separate analysis tables will be used to discuss the strength of the age effects and the saturation of the age effects.<sup>5</sup>

The data for the total samples for each of the twelve question-sets are presented in Table 9.3. As was the case for the analysis of the deviation data in Table 9.1, the effects of cohort and life-stage are different for the various attitudes. The range for the variance accounted for by the linear regressions for cohorts is twenty-seven per cent to eighty-four per cent; the similar range for life-stage effects is one per cent to ninety per cent. Although neither of these ranges indicates that the effect of the age variable is very homogeneous across all twelve attitudes, a first conclusion from these data concerning the relative strength of the two effects is that cohort has a somewhat more powerful impact upon foreign policy attitudes than does life-stage.

Perhaps the most important data presented in this table is that of the average amounts of variance accounted for by each of the effects across all twelve question-sets. These mean values allow the observer

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<sup>5</sup>It should be pointed out that the percentage variance explained is directly equivalent to correlational terminology. For the standard Pearson product-moment correlation, a measure of linear association, the percentage variance explained is given by the square of the correlation coefficient. Thus the reader interested in viewing our polynomial variance percentages in correlational terms need only take the square root of the table entries. For example, the Cohort Salience Totals value is 77.90 per cent for the linear polynomial; the square-root operation yields a linear correlation of .88. The cubic percentage variance in this case is 79.98, yielding a correlation of .89.

TABLE 9.2  
 VARIANCE EXPLAINED BY POLYNOMIAL REGRESSIONS  
 FOR ALL GROUPS  
 (in per cents)<sup>a</sup>

Group	Cohort			Life-Stage		
	Linear	Quad- ratic	Cubic	Linear	Quad- ratic	Cubic
<u>1. Salience</u>						
Totals	77.90	79.07	79.98	88.78	88.85	95.03
Grade School	34.87	39.76	44.90	51.92	53.24	66.10
High School	53.23	67.67	73.55	61.56	61.98	62.67
College	85.29	86.08	86.08	63.82	63.82	65.94
Males	84.81	90.15	97.86	68.74	76.80	82.75
Females	69.64	69.93	71.99	75.64	89.63	90.96
<u>2. Crisis Awareness</u>						
Totals	45.60	47.02	64.88	62.32	73.77	77.81
Grade School	32.97	41.86	42.02	18.39	21.23	39.37
High School	53.29	61.31	62.03	0.46	33.78	37.14
College	36.20	47.75	57.97	3.57	14.82	14.84
Males	54.86	56.15	70.70	53.49	66.04	66.59
Females	0.08	0.28	24.78	11.01	11.53	44.10
<u>3. Expectation of Crisis Escalation</u>						
Totals	29.63	33.13	43.53	3.95	14.63	24.36
Grade School	21.61	66.57	96.11	1.46	32.14	32.68
High School	9.01	59.39	74.24	11.56	11.86	36.23
College	35.05	35.83	43.43	0.02	15.16	37.70
Males	0.83	35.05	51.37	6.01	6.61	30.71
Females	45.41	58.91	78.69	12.84	28.35	30.15

TABLE 9.2  
(continued)

Group	Cohort			Life-Stage		
	Linear	Quad- ratic	Cubic	Linear	Quad- ratic	Cubic
<u>4. Expectation of War</u>						
Totals	74.90	78.89	83.85	76.01	76.02	79.85
Grade School	53.18	56.44	82.68	51.01	52.87	67.07
High School	82.82	83.15	83.29	69.95	70.58	77.88
College	6.31	68.50	71.66	69.48	73.49	80.88
Males	50.49	53.66	62.43	59.73	59.79	71.39
Females	47.64	56.72	77.23	65.14	67.98	69.82
<u>5. Negative Economic Expectations</u>						
Totals	83.20	83.31	83.69	16.44	30.39	51.11
Grade School	48.76	51.84	57.65	13.83	56.77	57.48
High School	57.69	59.30	59.51	14.30	14.80	15.34
College	67.82	76.50	96.45	14.77	18.94	19.32
Males	50.99	79.81	87.33	0.44	19.48	23.56
Females	72.97	79.93	81.60	65.09	65.77	79.88
<u>6. Local Nuclear Danger</u>						
Totals	26.77	35.25	42.71	67.43	77.75	78.45
Grade School	0.65	16.46	18.84	80.30	81.68	87.76
High School	31.83	79.47	80.07	58.20	77.72	78.49
College	0.31	0.31	71.28	27.21	67.72	70.39
Males	30.11	36.06	43.60	28.69	39.46	50.13
Females	26.88	50.18	61.95	55.45	68.21	79.97

TABLE 9.2

(continued)

Group	Cohort			Life-Stage		
	Linear	Quad- ratic	Cubic	Linear	Quad- ratic	Cubic
<u>7. Negative Image of the U.S.S.R.</u>						
Totals	37.51	50.35	72.00	65.52	73.14	73.28
Grade School	0.44	73.20	80.06	0.55	60.90	67.34
High School	3.77	35.53	35.77	11.44	37.61	44.03
College	1.45	2.46	4.63	4.05	8.79	43.47
Males	34.68	50.15	67.46	50.98	56.92	70.39
Females	39.09	51.54	63.57	61.11	77.28	77.91
<u>8. Perceived Soviet Superiority</u>						
Totals	60.05	68.62	78.13	1.20	13.23	13.96
Grade School	77.48	82.17	88.27	65.92	74.13	74.13
High School	0.42	0.56	40.65	33.80	35.75	36.24
College	29.79	49.11	54.89	34.82	34.94	49.65
Males	12.25	31.17	55.51	26.39	42.38	42.48
Females	9.58	9.64	79.31	9.99	13.44	44.15
<u>9. Military Capability</u>						
Totals	57.78	58.84	73.00	7.29	55.44	60.58
Grade School	61.12	61.32	61.46	0.81	29.51	64.31
High School	8.26	14.19	72.89	0.77	24.64	24.83
College	12.87	13.07	13.92	1.01	1.61	32.85
Males	15.68	35.83	47.78	5.60	55.42	56.69
Females	61.54	72.56	78.01	2.80	5.55	35.99

TABLE 9.2

(continued)

Group	Cohort			Life-Stage		
	Linear	Quad- ratic	Cubic	Linear	Quad- ratic	Cubic
<u>10. Advocacy of War</u>						
Totals	30.86	69.69	69.70	19.95	20.93	25.48
Grade School	27.42	49.29	66.16	35.53	41.93	41.96
High School	50.93	66.75	67.25	13.94	15.39	27.53
College	2.89	13.43	13.44	8.82	10.85	10.91
Males	33.20	73.05	74.54	54.37	55.34	55.56
Females	8.54	20.23	22.33	4.27	4.33	21.98
<u>11. Military Extension</u>						
Totals	83.55	96.09	98.19	9.59	40.38	51.71
Grade School	34.35	70.15	72.69	1.49	5.70	17.86
High School	62.29	91.99	92.05	11.09	34.87	47.03
College	23.46	23.53	76.67	17.87	46.64	53.63
Males	31.45	63.03	89.23	31.69	42.33	42.36
Females	90.18	90.49	90.82	0.66	20.59	40.25
<u>12. Non-Military Extension</u>						
Totals	80.27	82.50	94.14	89.65	92.55	94.41
Grade School	15.48	16.78	58.80	71.83	76.56	89.87
High School	11.94	53.39	54.75	32.54	34.98	35.56
College	14.98	17.48	21.12	7.62	8.29	8.61
Males	12.63	14.25	28.24	57.73	58.65	70.40
Females	72.72	78.69	78.73	69.55	72.93	74.32

<sup>a</sup>These data were generated by the BMD05R "Polynomial Regression" computer program, modified for the IBM 360/75. See: W. J. Dixon (ed.), BMD Biomedical Computer Programs. Los Angeles, Health Sciences Computing Facility, School of Medicine, University of California, 1965, pp. 289-296.

TABLE 9.3  
 VARIANCE IN TOTAL SAMPLES  
 EXPLAINED BY POLYNOMIAL REGRESSIONS  
 (in per cents)

Question-Set	Cohort			Life-Stage		
	Linear	Quad- ratic	Cubic	Linear	Quad- ratic	Cubic
1. SALIEN	77.90	79.07	79.98	88.78	88.85	95.03
2. CR AWAR	45.60	47.02	64.88	62.32	73.77	77.81
3. CR ESC	29.63	33.13	43.53	3.95	14.63	24.36
4. EXP WAR	74.90	78.89	83.85	76.01	76.02	79.85
5. NEG ECON	83.20	83.31	83.69	16.44	30.39	51.11
6. LOC NUC	26.77	35.25	42.71	67.43	77.75	78.45
7. NEG SOV	37.51	50.35	72.00	65.52	73.14	73.28
8. SOV SUP	60.05	68.62	78.13	1.20	13.23	13.96
9. MIL CAP	57.78	58.14	73.00	7.29	55.44	60.58
10. ADV WAR	30.86	69.69	69.70	19.95	20.93	25.48
11. MIL EXT	83.55	96.09	98.19	9.59	40.38	51.71
12. NON MIL	80.27	82.50	94.14	89.65	92.55	94.41
<u>Mean</u>	57.34	65.17	73.63	42.34	54.76	60.50
<u>Range</u>	26.77- 83.55	33.13- 96.09	42.71- 98.19	1.20- 89.65	13.23- 92.55	13.96- 95.03

to assess the generalized impact of cohort and life-stage upon foreign policy attitudes. For each of the three sets of polynomials a greater average amount of variance is explained by cohort than is explained by life-stage. In interpreting these three sets of mean values, it should be kept in mind that it is technically possible for cohort to explain a greater amount of variance on a linear basis while life-stage explains a greater amount of variance in the quadratic comparisons. Consider, for example, the hypothesis put forth by a number of writers, as described in Chapter Eight, that the effect of life-stage upon attitudes and behavior is curvilinear. The hypothesis states that for several reasons, younger persons and older persons are more like each other than they are like middle life-stages. If such a hypothesis were generally valid, across a number of attitudes, then we would expect that very little variance would be explained by the linear polynomial, but a great deal of variance would be explained by the quadratic polynomial. In such a situation, therefore, it would be possible for the cohort effect to be stronger in the linear case, but that the life-stage effect would be stronger in the quadratic case. As the data in Table 9.3 indicate, such is not the situation. Although the increase in percentage variance accounted for between the linear and quadratic polynomials is greater for life-stage than for cohort (twelve per cent as contrasted with eight per cent), the total amount of variance accounted for by the quadratic term is still greater for the cohort effect.

The relative importance of each of the three levels of polynomials introduces a dilemma. On the one hand, the simplest kind of theory building would be that based upon clear linear trends. On the other hand,

there is no overriding reason to expect that the age trends under consideration necessarily follow linear patterns; the polar life-stage similarity hypothesis mentioned above is an example of this. It is for this reason that both quadratic and cubic polynomials were included.

In looking at the results of the quadratic and cubic polynomials for cohort and life-stage, we find that the pattern is similar to that found for the linear polynomials. In each case the range of per cent variance accounted for is larger for life-stage than for cohort. For both the quadratic and cubic polynomials the lower end of the range is lower for life-stage, while the upper end of the range is higher for cohort. The average percentages of variance accounted for follow this general pattern; more variation is accounted for across the twelve question-sets by the cohort effect than by the life-stage effect.

Although the overall strength of the cohort effect as compared to the life-stage effect is clear, there are a number of differences between the two when the question-sets are observed individually. Looking first at the variance explained by the linear polynomials, the cohort effect is strongest for the four policy preference question-sets, with the entries ranging between sixty and eighty per cent. Negative Economic Expectations are also seen to be linearly related to the effects of cohort, a finding which corresponds with recent voting behavior research.<sup>6</sup> The "block" of attitudes most strongly related to life-stage in a linear

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<sup>6</sup> Convincing evidence of the effects of the Depression experience upon current voting patterns and alignments is given in: Angus Campbell, Philip E. Converse, Warren E. Miller, and Donald E. Stokes, The American Voter. New York, Wiley, 1960, pp. 153-156. See, also: Richard Centers, "Children of the New Deal: Social Stratification and Adolescent Attitudes," International Journal of Opinion and Attitude Research, 4 (1950), pp. 315-335.

fashion is that of cognitive involvement in the domain of foreign policy, the Saliency and Crisis Awareness question-sets. Support for Non-Military Extension is also linearly related to life-stage, as it is to cohort.

Looking at the pattern of percentages for the cubic polynomials, the situation is similar to that described above for linear relationships. The variance accounted for by the cohort effect in the case of the four policy preference question-sets ranges from seventy to ninety-eight per cent. In addition, two of the negative expectation attitudes surpass the eighty per cent level. For the life-stage effect, Saliency and Non-Military Extension remain as the attitudes with the greatest amount of variance explained.

This consideration of the effects of cohort and life-stage upon the separate question-sets leads to a final test of the strength of these two effects. The percentages in Table 9.3 indicate that for some attitudes the effect of life-stage is greater than the effect of cohort, while for other attitudes the reverse is true. We should investigate, therefore, the relative strength of each effect upon that subset of attitudes for which it is the stronger effect. The nature of this phase of the investigation is made clearer by the data in Table 9.4, which are derived from Table 9.3. For each question-set (at each level of polynomial) it was determined which of the two effects was the stronger, that is, which accounted for the greater percentage of variance. The smaller variance percentage was then subtracted from the larger, and the remainder entered in the column of the larger. For example, the entries for Saliency in Table 9.3 indicated that the linear polynomial accounted for 77.90 per cent of the cohort variance and 88.78 per cent of the life-stage variance; thus, for this question-set the life-stage effect is the stronger. The difference between the two entries, 10.88

TABLE 9.4

STRENGTH OF AGE EFFECTS:  
POLYNOMIAL VARIANCE DIFFERENCES FOR TOTALS  
(in per cents)

Question-Set	Linear		Quadratic		Cubic	
	Cohort	Life- Stage	Cohort	Life- Stage	Cohort	Life- Stage
1. SALIEN	--	10.88	--	9.78	--	15.05
2. CR AWAR	--	16.72	--	26.75	--	12.93
3. CR ESC	25.68	--	18.50	--	19.17	--
4. EXP WAR	--	1.11	2.87	--	4.00	--
5. NEG ECON	66.76	--	52.92	--	32.58	--
6. LOC NUC	--	40.66	--	42.50	--	35.74
7. NEG SOV	--	28.01	--	22.79	--	1.28
8. SOV SUP	58.85	--	55.39	--	64.17	--
9. MIL CAP	50.49	--	2.70	--	12.42	--
10. ADV WAR	10.91	--	48.76	--	44.22	--
11. MIL EXT	73.96	--	55.71	--	46.48	--
12. NON MIL	--	9.38	--	10.05	--	0.27
<u>Mean</u>	47.78	17.79	33.84	22.37	31.86	13.05
<u>Range</u>	10.91- 73.96	1.11- 40.66	2.70- 55.71	9.78- 42.50	4.00- 64.17	0.27- 35.74

per cent, was then entered in the life-stage column in Table 9.4. No entry was made in the cohort column for Saliency.

The data in Table 9.4 allow us to answer the following question: for the set of attitudes for which a given effect is the stronger, how much stronger is it? Although Table 9.3 indicated that across all twelve question-sets cohort is, on the average, the stronger of the two effects, it may be that life-stage has a "stronger hold" on a few attitudes than cohort has upon the majority of attitudes.

The means and ranges in Table 9.4 indicate that on the average the strength of the cohort effect upon seven question-sets (six in the linear case) is greater than the strength of the life-stage effect upon five question-sets. The average differential in variance explained by cohort is larger than that explained by life-stage at each level of polynomial. In addition, the lower and upper ranges of the cohort variance percentages are consistently (with one exception) higher than those of the life-stage variance percentages.

To summarize the analysis of the "strength" of the two age effects, for both the deviation analysis and the polynomial analysis, the cohort effect is generally stronger than the life-stage effect. These two sets of comparisons measure two dimensions along which the strength of an effect may be evaluated. The deviation analysis measures the average homogeneity of each of the data points which are part of the trend line, while the polynomial analysis measures the explanatory power of the effect across the entire trend. Although for both dimensions it is apparent that cohort produces the stronger effect, it is also apparent that life-stage is the predominant effect for certain question-sets.

### 9.3 The Relative Saturation of the Cohort and Life-Stage Effects

As mentioned in Section 9.1, the "saturation" of an effect is conceived of as the degree to which the effect is felt across a number of substrata within the population. The substrata analyzed in this study are based on the sex and education variables. It is important to remember that the structure of the analysis of the five control groups yielded by these two variables is such that each control group was statistically analyzed individually.<sup>7</sup> In other words, separate cohort analyses, and the subsequent deviation and polynomial data, were generated for a total of six separate units: the total samples and the five control groups. Although the control groups vary in their proportionate size within the total samples, our analysis focuses upon them as equal units, and thus no adjustment is made for the differential numbers of respondents in each control group. If our intention were to statistically predict the percentages for a given population at a given time for some particular behavior, for example, voting in an election, then the effect of the control variables would have to be weighted in terms of their population proportion. Our interest, however, is in the control groups qua groups, and thus the data have been analyzed on such a group basis.

The first test of the relative saturation of the cohort and life-stage effects across the control groups is that of the deviation analysis. As was done for the estimation of the strength, in Table 9.1, attention will be focused on the attribute-space which is derived from

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<sup>7</sup>Our use of the term "control group" is not to be confused with the term as it is used in experimental research wherein an experimental group and a separate control group are compared. Since we are dealing with groups stratified on the basis of control variables, it seems more natural to refer to them as control groups than to invent a new term.

the actual numeric data. The interested reader can find the complete data tables in Appendix C; the attribute-space is presented in Table 9.5. The first finding produced by an observation of this table is that neither the life-stage effect nor the cohort effect is completely dominant for any single control group. We can, however, note the relative saturation of the effects for the different control groups as well as for the twelve question-sets.

An indication of the relative impact of the two effects is given by the column totals of the attributes at the bottom of Table 9.5. It is clear that for four of the five control groups, as well as for the totals column, the cohort effect is dominant. For females, the one exception, there is an equal number of cohort and life-stage attribute entries. The range in the strength of the two effects across the remaining groups indicates the power of the cohort effect as compared to that of life-stage. The strongest cohort effect is seen for the grammar school and high school education groups for which eight of the twelve question-sets have the cohort attribute, while only one question-set has the life-stage attribute. The cohort effect for the males is quite similar in that eight entries possess the cohort attribute. At the "other end" of this range is the college educated group for which six of the twelve question-sets are characterized by the cohort attribute, while three question-sets have the life-stage attribute.

The row totals in Table 9.5 indicate another dimension of the relative saturation of the cohort and life-stage effects, that of the impact upon different attitudes. Looking across all five control groups plus the data for the total samples, there are only two question-sets in which

TABLE 9.5  
 ATTRIBUTE-SPACE<sup>a</sup> FOR  
 MEAN DEVIATION ANALYSIS:<sup>b</sup>  
 ALL GROUPS<sup>c</sup>

Question-Set	Total Samples <sup>d</sup>	Education			Sex		Row Totals
		C	H	G	M	F	
1. SALIEN	O	L	O	C	L	C	O=2 C=2 L=2
2. CR AWAR	O	C	C	O	O	L	O=3 C=2 L=1
3. CR ESC	L	L	C	L	C	L	O=0 C=2 L=4
4. EXP WAR	C	O	C	C	L	C	O=1 C=4 L=1
5. NEG ECON	C	C	C	O	C	C	O=1 C=5 L=0
6. LOC NUC	C	C	C	C	C	L	O=0 C=5 L=1
7. NEG SOV	C	C	O	C	C	C	O=1 C=5 L=0
8. SOV SUP	O	O	C	C	O	O	O=3 C=3 L=0

TABLE 9.5  
(continued)

Question-Set	Total Samples <sup>d</sup>	Education			Sex		Row Totals
		C	H	G	M	F	
9. MIL CAP	C	C	C	C	C	C	O=0 C=6 L=0
10. ADV WAR	O	L	O	C	C	L	O=2 C=2 L=2
11. MIL EXT	C	O	L	O	C	L	O=2 C=2 L=2
12. NON MIL	L	C	C	C	C	O	O=1 C=4 L=1
GROUP	O=4	O=3	O=3	O=3	O=2	O=2	O=17
TOTALS	C=6	C=6	C=8	C=8	C=8	C=5	C=41
	L=2	L=3	L=1	L=1	L=2	L=5	L=14

<sup>a</sup>See note following Table 9.1 for information concerning the designation and definition of the attribute entries.

<sup>b</sup>The complete mean deviation data on which this attribute-space is based are presented in Appendix C.

<sup>c</sup>Education and Sex Control Group abbreviations: C = college education, H = high school, G = grammar school or less, M = males, F = females.

<sup>d</sup>Total Sample attributes repeated from Table 9.1.

the number of "no difference" attributes approach fifty per cent of the entries: Crisis Awareness and Perceived Soviet Superiority. Of the remaining ten question-sets, six are clearly cohort dominant, each having at least eighty per cent cohort attributes. For the Military Capability question-set, all of the entries possess the cohort attribute. One attitude, Expectation of Crisis Escalation, is characterized by a predominance of life-stage attributes. For the remaining three question-sets, Salience, Advocacy of War, and Military Extension, there is an equal distribution of the cohort, life-stage, and no difference attributes.

We may conclude this phase of the saturation analysis by observing that across all control groups and most foreign policy question-sets, the predominant effect is that of cohort. Although the entries in the attribute-space demonstrate that there are a number of instances wherein smaller mean deviation scores, that is, greater homogeneity of response within a group, are yielded by life-stages, the general pattern is nonetheless one of the influence of generational cohorts. As a final indication of the pattern of age effects included in Table 9.5 a summary of the attribute entries is presented. Of the seventy-two entries in the table, seventeen, or twenty-four per cent, indicate no difference between the effects of life-stage and cohort. Forty-one, or fifty-seven per cent, of the entries possess the cohort attribute, and fourteen, or nineteen per cent, of the entries possess the life-stage attribute. When looking only at those fifty-five entries for which a life-stage or cohort difference is detected, it is seen that twenty-five per cent of these entries are characterized by the life-stage attribute, while the remaining seventy-five per cent of the entries possess the cohort attribute.

The second set of data which will be applied to the determination of life-stage and cohort saturation of the foreign policy attitudes is derived from the polynomial computations. As pointed out earlier, each control group was subjected to a separate cohort analysis, one product of which was a set of life-stage and cohort graphs for the control groups equivalent to those presented for the total samples in Chapter Seven and Chapter Eight. In turn, polynomial regressions were computed for each curve; the complete results for each of the twelve question-sets across each of the control groups is presented in Table 9.2. Since we conceive of "saturation" as the strength of an effect across all the control groups, the entries in Table 9.6 represent the arithmetic mean of the equivalent set of entries in Table 9.2. For example, the linear variance for Salience in the cohort part of Table 9.6 (65.67 per cent) is the average of the five entries for the linear cohort variance column of Table 9.2 (34.87, 53.23, 85.29, 84.81, and 69.64 per cent, respectively). The totals data have been excluded from the calculations since they have already been presented in Table 9.3.

An initial observation of these data is that although the cohort effect has a somewhat greater saturation across all of the twelve question-sets than has the life-stage effect, the margin of difference is not as great as it was for the totals data in Table 9.3. The mean values at the bottom of Table 9.6 show that for the linear regressions, the average variance accounted for by cohort is less than five per cent greater than that accounted for by life-stage. For the quadratic regressions, the margin is eight per cent, and for the cubic regressions, the mean values are different by about five per cent. Thus, although there is a consistency

TABLE 9.6  
 AVERAGE VARIANCE IN FIVE CONTROL GROUPS  
 EXPLAINED BY POLYNOMIAL REGRESSIONS  
 (in per cents)

Question-Set	Cohort			Life-Stage		
	Linear	Quad- ratic	Cubic	Linear	Quad- ratic	Cubic
1. SALIEN	65.67	70.72	74.88	64.34	69.09	73.68
2. CR AWAR	35.48	41.47	51.50	17.38	29.48	40.41
3. CR ESC	22.38	51.15	68.77	6.38	18.82	33.49
4. EXP WAR	48.09	63.69	75.46	63.00	64.92	73.41
5. NEG ECON	59.65	69.48	76.51	21.69	35.15	39.12
6. LOC NUC	17.96	36.50	55.15	49.97	66.96	73.35
7. NEG SOV	15.89	42.58	50.30	25.63	48.20	60.63
8. SOV SUP	25.90	34.53	63.73	34.18	40.13	49.33
9. MIL CAP	31.89	39.39	54.81	2.20	23.35	42.93
10. ADV WAR	24.60	44.55	48.74	23.39	25.57	31.59
11. MIL EXT	48.35	67.84	84.29	12.56	30.03	40.23
12. NON MIL	25.55	36.12	48.33	47.85	50.30	55.75
<u>Mean</u>	35.11	49.84	56.33	30.71	41.83	51.16
<u>Range</u>	15.89- 65.67	34.53- 70.72	48.33- 76.51	6.38- 64.34	18.82- 69.09	31.59- 73.68

across the three levels of polynomials pointing to the greater effect of cohort, both effects similarly saturate the domain of foreign policy attitudes, as defined by the twelve question-sets.

The pattern of saturation within the twelve question-sets is also fairly clear. Although there is very little difference between the cohort and life-stage effects for Salience, the first two question-sets as a subset, indicating cognitive involvement in matters of foreign policy, have a greater cohort saturation across all three levels of polynomial regressions. For the negative expectations emanating from the environment for the negative images and perceptions of the Soviet Union, however, the saturation by life-stage is greater than that by cohort. For the linear and quadratic polynomials, the average amount of variance accounted for by life-stage, across the five control groups, is greater than that accounted for by cohort; this finding is consistent across four of the six negative expectation and perception question-sets, the exceptions being Negative Economic Expectations and Expectation of Crisis Escalation.

For the cubic polynomial regression, however, the greater saturation by life-stage is not as clearly defined; the cohort effect has "captured" Expectation of War and Perceived Soviet Superiority in terms of the greater amount of variance accounted for. In the case of the four policy preference question-sets, the cohort effect again becomes dominant, as it accounts for a greater percentage of the variance in three of the four attitudes, the one exception being Non-Military Extension.

In considering the impact of the cohort and life-stage effects upon the various question-sets, we return to the structure of analysis presented in Table 9.4. The data in Table 9.7 represent the differential

TABLE 9.7

SATURATION OF AGE EFFECTS:  
 AVERAGE VARIANCE DIFFERENCES FOR FIVE CONTROL GROUPS  
 (in per cents)

Question-Set	Linear		Quadratic		Cubic	
	Cohort	Life-Stage	Cohort	Life-Stage	Cohort	Life-Stage
1. SALIEN	1.33	--	1.63	--	1.20	--
2. CR AWAR	18.10	--	11.99	--	11.09	--
3. CR ESC	16.00	--	32.33	--	35.28	--
4. EXP WAR	--	14.91	--	1.23	2.05	--
5. NEG ECON	37.96	--	34.33	--	37.39	--
6. LOC NUC	--	32.01	--	30.46	--	18.20
7. NEG SOV	--	10.04	--	5.62	--	10.33
8. SOV SUP	--	8.28	--	5.56	14.40	--
9. MIL CAP	29.69	--	16.04	--	11.88	--
10. ADV WAR	1.21	--	18.98	--	17.15	--
11. MIL EXT	35.79	--	37.81	--	44.06	--
12. NON MIL	--	22.30	--	14.18	--	7.42
<u>Mean</u>	20.01	17.51	21.87	11.41	19.39	11.98
<u>Range</u>	1.21- 37.96	8.28- 32.01	1.63- 37.81	1.23- 30.46	1.20- 44.06	7.42- 18.20

strength of each effect upon those question-sets for which the effect is relatively greater. At each polynomial level the difference between the variance accounted for by the two effects is entered into the column of the greater effect. Since these table entries are derived from Table 9.6 which represents the average variation accounted for across all five control groups, these comparisons become a measure of the saturation of the two effects.

The column entries in Table 9.7 make clearer the observations of the previous table; that is, it is clearer as to which question-sets are dominated by cohort and which are dominated by life-stage. The cognitive involvement and policy preference question-sets are saturated by the cohort effect while the negative expectation and perception question-sets are relatively saturated by the life-stage effect.

Additional interesting information is provided by the average saturation values at the bottom of Table 9.7. First, all of the means are quite low, the largest indicating a differential of only twenty-two per cent of the variance. Thus the saturation of both aspects of the age variable across the five control groups is not very great. Second, the differences between the two age effects across the three polynomial levels are not large, the largest being ten per cent at the quadratic level. Finally, in this context of low saturation and relatively little difference between the effects, the cohort effect is consistently greater.

The results of this analysis of the differential saturation levels correspond rather closely to those of the total saturation data of Table 9.6. The average amount of variance accounted for, as well as the difference in magnitude of saturation between cohort and life-stage, is

consistently lower for the five control groups than for the total samples, as described earlier in this chapter. We may say, therefore, that significant intra-population differences exist for both interpretations of the age variable.

There may be a number of factors which influence persons of low education to react to the potential effects of the generational experience in a different manner than is the case for well-educated persons. Similarly, there may be identifiable patterns in the sociological differences between the sexes which would predict that the influence of life-cycle changes upon political attitudes is a differential one. Investigation of such factors, however, must await future research, research whose primary focus is that of the influence of education and sex upon patterns of political behavior. Our own interest in these control groups has been that of ascertaining the general impact of the age variable upon attitudes toward foreign policy. While these particular control groups have given us much information concerning the saturation of the effects of life-stage and cohort phenomena throughout the substrata of the American population, other substrata should be investigated as well. This, in turn, demands the development of data bases which longitudinally measure indicators of subgroup membership, data bases which, unfortunately, do not exist at the present time.

#### 9.4 Summary: Cohort versus Life-Stage

The purpose of this final analytic chapter has been to exploit one of the major strengths of cohort analysis: the ability to confront the aging and generational explanations against one another within the same

set of data. The scientific strength of these procedures lies in their potential for empirically ruling out the alternative explanatory hypothesis. As the analysis in this chapter indicates, however, we cannot completely choose either the cohort or life-stage effect as being the entirely dominant one. Although the arguments of the cohort versus life-stage dialogue cannot be completely resolved, this analysis nonetheless marks a major advance as compared to previous studies of age differences. Formerly, the ambiguity of the differential impact of age and generation stemmed from the methodological problems inherent in cross-sectional research designs. The lack of any decision concerning the relative weight of the cohort and life-stage effects was, almost by definition, indecision, and thus theoretically empty. The fact that our data demonstrate differential patterns of impact of the cohort and life-stage explanations indicates mixed decisions, uncompromisable on the basis of method, which are theoretically meaningful.

The deviation and polynomial data analyzed here in terms of strength and saturation point to the greater relative power of generational cohort than of life-stage. For most of the comparisons made across twelve foreign policy question-sets, the cohort effect was found to (a) produce greater homogeneity of response patterns, and (b) account for larger proportions of the variance to be explained. The same pattern of results was found for the strength comparisons as for the saturation comparisons, except that in the latter case the effects were not as marked as in the former.

In summarizing the various life-stage and cohort trends found in the twelve question-sets, three general kinds of "ideal" patterns are possible: (1) cohort dominant, (2) life-stage dominant, and (3) neither dominant.

This latter pattern can result from (a) each explanation achieving dominance in certain comparisons but not in others, or (b) no difference found between the two explanatory effects. These summary patterns are described, of course, according to the dominant trends which emerge from the variety of comparisons and tables reported in this chapter. On this basis, the following conclusions emerge:

The strength of the cohort effect is greater for:

- 9.3.1 Expectation of War
- 9.3.2 Negative Economic Expectations
- 9.3.3 Perceived Soviet Superiority
- 9.3.4 Military Capability
- 9.3.5 Advocacy of War
- 9.3.6 Military Extension

The strength of the life-stage effect is greater for:

- 9.3.7 Saliency
- 9.3.8 Crisis Awareness
- 9.3.9 Non-Military Extension

The strength of neither effect is greater for:

- 9.3.10 Expectation of Crisis Escalation
- 9.3.11 Expected Local Nuclear Danger
- 9.3.12 Negative Image of the Soviet Union

The saturation of the cohort effect is greater for:

- 9.3.13 Saliency
- 9.3.14 Crisis Awareness
- 9.3.15 Expectation of War
- 9.3.16 Negative Economic Expectations

9.3.17 Military Capability

9.3.18 Advocacy of War

9.3.19 Military Extension

No difference in the saturation of the effects is found for the remaining question-sets; that is, there are no question-sets for which the life-stage effect has the greater saturation across the deviation and polynomial tests. For most of the twelve question-sets there is agreement between the strength and saturation components of the power of an effect, for example: cohort strength and cohort saturation, no difference strength and no difference saturation. The following four exceptions, however, should be mentioned:

9.3.20 Salience: Life-stage strength and cohort saturation

9.3.21 Crisis Awareness: Life-stage strength and cohort saturation

9.3.22 Perceived Soviet Superiority: Cohort strength and no difference saturation

9.3.23 Non-Military Extension: Life-stage strength and no difference saturation

The conclusion of these various comparisons, therefore, is that, in sum, the impact of the generational experience is greater than the impact of the various influences connected with the aging process. Although the analytic model of cohort analysis controls for the spurious effects of cohort upon life-stage comparisons, and vice versa, there are at least two conditions external to the methods and data employed here which do serve as cautions in the interpretation of the cohort and life-stage patterns. The first, which has been mentioned previously, is that correlation does not prove causation. The fact that the effects of generational experiences are seen to be relatively important within the

twelve question-sets does not necessarily mean that these behavior patterns are solely or mainly caused by such experiences. What these data do mean, however, is that of the two interpretations of the age variable the generational interpretation is empirically more sound. An alternative explanation of these cohort trends might argue that successive generations merely reflect in a passive way the flow of historical influences, while the influence of life-stage experiences serves only to scramble such historical influences. In the context of such an explanation cohort effects would be expected to be relatively more powerful than life-stage effects even though the generations were the repository of historical trends rather than their cause. We have no quarrel with such an interpretation; however, the results of this study provide an empirical basis for a plausible theory of generational causality, while the corresponding basis for a life-stage theory will have to be sought elsewhere.

The second condition which should be kept in mind runs in the opposite direction from the first. In those instances where "no difference" was located in the power of the two competing explanations it should not be concluded that life-stage and cohort have no influence. In Graph 7.1, for example, a fairly clear linear trend in Salience was associated with the succession of cohorts, yet in the present chapter the life-stage effect was stronger. The latter conclusion does not mean that the trend was spuriously generated by measurement error or some such explanation. Rather, these data demonstrate that more than one effect may be operating upon human behavior to produce a given trend, with certain effects stronger than others. In those instances where cohort is seen to be the stronger effect we may still expect that there are certain life-stage effects as

well. The question, however, of which interpretation of the age variable is the more powerful across a number of different types of attitudes, across a twenty-year period, across the dimensions of response deviation and percentage of variance explained, and across a research design which purposely controls for the contaminating effects of one interpretation upon the other, can be answered quite clearly, as the present study has demonstrated.

## CHAPTER TEN

### CONCLUSION: THE GENERALITY OF DATA AND METHOD

#### 10.1 Introduction

The present study has focused upon two primary goals: (1) investigation of the age variable with the aim of providing empirical comparisons between the generational and aging interpretations of age; and (2) demonstration of cohort analysis, a methodological approach to the study of age. The pursuit of each of the two goals has, hopefully, benefited the other: the location of significant age patterns in political behavior has demonstrated the efficacy of cohort analysis, while the demonstrated utility of cohort analysis has illustrated the importance of a systematic empirical investigation of the correlates and interpretations of age.

In concluding this study an attempt will be made to demonstrate the generality of the specific trends and age effects which the analysis has uncovered as well as the general applicability of cohort analysis to a variety of substantive problems in political analysis. As stated in Chapter Three, the choice of foreign policy attitudes as the domain in which the study was carried out was based upon certain specified social and scientific reasons, the primary one being that the relatively unstructured nature of these attitudes potentially optimized the search for generalized age effects. Thus, although the various cohort and life-stage patterns discovered in the analysis are relevant to the understanding of foreign policy behavior, the variety of attitude types represented within the twelve question-sets reflects other attitudinal domains as well. A public policy

attitude paradigm was constructed in order to conceptually assign locations to the question-sets, but also to indicate a general model for the study of a number of kinds of policy-relevant behavior. In order to better portray the potential generality of the life-stage and cohort patterns within the foreign policy data, the dominant effects will be displayed in terms of this policy attitude paradigm. In reading this phase of the analysis, scholars interested in other policy attitude domains may be able to derive insights, suggestions, and hypotheses concerning the probable influence of life-stage and cohort phenomena upon a wide variety of attitudes and behaviors.

The second way in which the generality of these attitudinal findings will be illustrated is in the form of propositions. The twelve foreign policy question-sets which have been analyzed represent attitudes which have analogues in other domains. Since this particular dependent variable was chosen as an instance of political behavior, rather than as the primary focus of the study, a number of more general propositions can be fashioned from the specific findings. The propositions which are presented here are only illustrative of what may be done with these particular data. Certainly scholars with a variety of interests will be able to find other useful propositions hidden within the foreign policy trends. Hopefully the propositions suggested in this chapter will stimulate hypotheses which will prove to be valid across a number of political behavior domains.

The second goal of this study has been to present cohort analysis as a highly useful and widely applicable technique for the study of human behavior. The cohort model, as discussed in Chapter Four, has been of great service to demographers in their study of population structures and trends. After its initial introduction to attitude research by William Evan in 1958,

however, the technique has been relegated to introductory footnotes. The standard form of such footnotes includes deferential statements concerning the probable utility of cohort analysis, as well as the stated belief that future research ought to employ it. The present study, the first to focus upon a formal cohort analysis of political behavior, developed from the fortunate intersection of interest in the problems of generations, political socialization, and foreign policy attitudes, and access to the Oak Ridge survey data bank.

Hopefully the insights which this study may give to other scholars will provide the impetus for further analyses of the influence of age upon behavior using the technique of cohort analysis. As a purposeful demonstration of the technique, the present study will offer a number of future research directions in which cohort analysis could profitably be applied. The final section of this study, therefore, will present a number of such alternatives. The suggestions range from the use of the results of cohort analysis as empirical scenarios for other research to the location of attitude dimensions which can then be used by a variety of researchers. In these ways it is felt that the generality of the cohort analysis model will be established.

#### 10.2 Distribution of Age Effects in the Public Policy Attitude Paradigm

The paradigm suggested in Chapter Three has, thus far, been described as useful for three kinds of operations. First, the paradigm can be seen as a generalized matrix for the designation of dimensions and components of dimensions by which attitudes toward any public policy domain can be studied. The discussion in Chapter Three indicated that the two primary dimensions,

attitudinal objects and attitudinal components, can be augmented by a number of additional dimensions, for example, level of attitude measurement, mass or elite respondents, nationality of respondents, etc. Second, the paradigm can be used to locate the specific attitudes which are analyzed in a given study or a set of studies. Chapter Five operationalized the scope and limitations of the present study by allocating the twelve question-sets to the cells of the two-dimensional form of the paradigm. Third, the scope and limitations of an entire research literature can be portrayed in the paradigm, as individual studies within a given problem area are allocated to the cells of the matrix. An example of this utility is demonstrated in Appendix D.

A fourth area of utility for this paradigm can also be suggested: the location of research findings. Each of the twelve foreign policy question-sets located within the paradigm in Chapter Five has been analyzed from both the cohort and life-stage perspectives. We are now in a position to add to the paradigm the cohort and life-stage effects which, in the previous three chapters, have been found to be associated with each of the attitudinal question-sets. This final use of the paradigm serves the following purposes: (1) it provides a summary of the overall power of the life-stage explanation as compared to the power of the cohort explanation; (2) it locates the power of each of the age effects within a conceptually derived matrix; (3) it aids in the generalization of the age effects across components of attitudes; and (4) it aids in the generalization of age effects across classes of public policy objects.

Before presenting this phase of the analysis, two preliminary statements must be made. First, the power of the cohort and life-stage effects

cannot be located in all of the cells of the paradigm. As pointed out in Chapter Five, the fact that not all of these cells are represented in our data base by question-sets limits to some extent our ability to generalize from the data to all foreign policy attitudes or to all political attitudes. The generalizations which can be made, therefore, are subject to modification as further studies of attitudes toward problems of public policy are designed and executed. Second, in order to better understand the meaning of any given pattern of cohort and life-stage effects within the paradigm, the pattern should be compared with an ideal type. The simplest ideal type, of course, would be that in which all cells are dominated either by the cohort effect or the life-stage effect. As the comparative analyses in Chapter Nine indicated, however, such uniformity does not obtain for these foreign policy attitudes. The next level of an ideal type situation would be that in which all question-sets in a given row or a given column were predominately cohort or life-stage. This latter pattern provides the standard against which the actual entries should be compared.

As in previous chapters, the cohort (C), life-stage (L), and no difference (O) attributes are used to indicate those cells in which the alternative effects of age are dominant. The attributes entered into the policy attitude paradigm, Figure 10.1, are based upon the summary age effects presented in Section 9.3. Each question-set abbreviation is followed by two attribute designations, the first for the strength of the effect and the second for the saturation of the effect. The initial observation which can be made concerning the pattern of attribute entries in Figure 10.1 is that neither of the ideal type situations postulated above is found in our data; that is, no single attitudinal component column nor attitudinal object row

FIGURE 10.1  
 ALLOCATION OF AGE EFFECTS TO PARADIGM<sup>a</sup>

Public Policy Object Dimension	Attitude Dimension		
	Cognitive	Affective	Behavioral
Actors	SOV SUP: C-O	NEG SOV: O-O	-----
Things	-----	-----	-----
Events	CR AWAR: L-C	-----	-----
Processes	CR ESC: O-O	-----	MIL CAP: C-C MIL EXT: C-C NON MIL: L-O
States	SALIEN: L-C EXP WAR: C-C NEGECON: C-C SOV SUP: C-O	LOC NUC: O-O	ADV WAR: C-C

<sup>a</sup>The dominant age effect attributes are derived from the summary discussion presented in Section 9.3. The pair of attributes following each question-set abbreviation refer, respectively, to the strength and saturation components. Cells in which no age effects are located are those for which no question-sets could be analyzed for the 1946-1966 period (see Figure 5.2).

can be completely characterized by either the cohort or the life-stage effect. An initial summary generalization, therefore, may be stated as follows: the effects of the age variable are not homogeneous across types of attitudes.

The description of the general patterns which do emerge from these data must be made in the context of the question-sets which have been analyzed. The fact that several cells in the matrix are not represented in our data base limits the extent to which generalizations across attitudinal components and attitudinal objects can be made. A number of generalizations, however, do emerge from the data.

For those cells within the matrix which do possess foreign policy question-sets, the cohort effect is generally predominant. There is no identifiable pattern of the cohort attributes which would specify the generalization that the cohort effect is operative in only a certain limited subset of the attitude types. Cohort attributes are seen in both the Cognitive and Behavioral columns, as well as in all of the attitude object rows for which question-sets were available. The same general statement can be made about the three life-stage attributes. The notable exception to this kind of generalization occurs for the no difference attributes in the Affect column. Although there are only two question-sets which measure the affective component of attitudes, all four of the attributes indicate that neither cohort nor life-stage predominates.

Looking at the rows representing attitudinal objects, it is again found that the influence of generational cohorts is widespread, with no specific delimiting pattern being formed by the cohort attributes. For the Process and State-of-Affairs rows, which are the two rows most densely

populated by the foreign policy question-sets, it is found that five of the ten question-sets are uniformly dominated by the cohort effect, in terms of both strength and saturation. For two additional question-sets the cohort effect is greater either for strength or for saturation.

The allocation of the age effects to the cells of the public policy attitude paradigm has, therefore, provided some important information concerning the generalization of the patterns which have been uncovered in previous chapters. The summary listing of cohort and life-stage effects presented at the end of Chapter Nine indicated that the impact of the two age effects was not the same across the twelve question-sets. The use of the paradigm goes a step further and allows us to see if the various life-stage dominant and cohort dominant question-sets form a meaningful pattern, either in terms of attitudinal components or in terms of foreign policy objects. The attribute data in Figure 10.1 indicate that the relatively stronger power of the cohort effect, as summarized in Chapter Nine, is distributed quite generally across the attitude types.

### 10.3 Empirical Findings and General Propositions

The allocation of the major cohort and life-stage effects to a widely applicable attitude paradigm is one way of demonstrating the generality (and limitations) of our findings. A second approach is that of constructing general propositions. As pointed out before, the twelve question-sets which operationally define the foreign policy attitudes analyzed in this study represent a variety of attitude types. The classes of attitudinal objects used in the paradigm, for example,

apply to many substantive domains in addition to foreign policy. Therefore, the location of age effects with respect to types of attitudes should provide guidelines to future researchers who may choose to conceive of their studies in terms of our paradigmatic attitude types. The purpose of this section is thus to restate some of the foreign policy findings in the form of general propositions. It should be pointed out, however, that a complete enumeration of all potential general propositions would require the collective efforts of a number of scholars, since subject matter specialists in a variety of public policy areas should be able to construct propositions from our data based upon their knowledge of other problems. Therefore, a number of examples of such general propositions will be given. In each case the finding will be stated, followed by the general proposition.

10.3.1 Finding: The cohort data indicate a historical trend in which levels of both foreign policy Salience and Crisis Awareness have been increasing.

Proposition: The more recent the cohort the greater the general salience of political matters, as well as the awareness of matters which are relevant to political decisions.

10.3.2 Finding: For both the life-stage data and the cohort data, the Salience trend is more linear than the Crisis Awareness trend.

Proposition: The generalized importance attributed to matters of public policy increases more rapidly than

does the awareness of specific events relevant to the policy problem.

10.3.3 Finding: For two of the four negative expectation question-sets there is a linear relationship between the recency of the cohort and the increasing level of negative expectations. Expectation of Crisis Escalation, however, does not follow this pattern.

Proposition: There is an increasing belief on the part of the American public that, in general, problems are becoming more intense, but there is not to the same degree the feeling that any single event will alter the basic structure of the problems.

10.3.4 Finding: The foreign policy question-sets which express generalized and systemic negative expectations are linearly related to the succession of generational cohorts; the Local Nuclear Danger question-set, which expresses a more personalized expectation, does not share this relationship.

Proposition: The consequences of problems of public policy are differentially perceived of in terms of the self and the political system.

10.3.5 Finding: The cohort trend in increasing levels of negative expectations emanating from the environment is accompanied by decreasing trends in negative perceptions of the Soviet Union, a nation which may be

considered as a major threat-producing agent within the environment.

Proposition: There has been a historical shift away from the blaming of a single political actor as the source of political problems and toward the attribution of problems to a generally troubled system.

10.3.6 Finding: Cohort groups socialized before the Soviet Union was a major international actor tend to hold more negative perceptions of that country than do those cohort groups which were socialized after the Soviet Union achieved status as a major world power.

Proposition: Individuals or groups whose political perceptions are formed in a context of superiority over an adversary will, after a situation of parity has evolved, perceive the adversary with greater fear and suspicion than will those individuals or groups whose perceptions are formed in the context of parity.

10.3.7 Finding: Across all seven cohort groups, there is a strongly identifiable negative relationship between the trend in Crisis Awareness and the trend in Negative Image of the Soviet Union.

Proposition: The relationship between fear of an object or domain and avoidance of it, or the relationship between ignorance of the domain and subsequent fear of it--both of which have been documented by psychologists

in terms of individual behavior--are valid for generational cohort groups across the 1946-1966 period.

10.3.8 Finding: The more recent the cohort the higher the levels of attitudinal support across all four of the policy preference or behavioral question-sets.

Proposition: The American public has moved from endorsing single approach "all or nothing" solutions to the endorsement of a multiple approach program of solutions for problems of public policy.

These eight examples of the kinds of general propositions which can be fashioned from our foreign policy data may be applied to several different domains of political behavior. Proposition 10.3.5, for example, can be applied to the area of civil rights as follows: the American public views the turmoil and problems of civil rights as the result of a variety of systemic strains and failures, and not as the result of an organized conspiracy. The proposition can be similarly applied to problems which are now called "crime in the streets." Continuing this example of the domain of urban violence, Proposition 10.3.8 predicts that the American public may be willing to support a balanced multiple approach to the solution of problems which cause the violence.

Two of these general propositions describe the evolving environment in which all matters of public policy will be considered by the American public. Proposition 10.3.1 indicates that the American public is more aware of the events which comprise politics in recent years than was the case in the past, and that, in general, public policy problems are becoming

more salient to members of the public. A second proposition, Proposition 10.3.6, indicates that decision-makers must take into account the changing public perceptions of major political antagonists. While historically older cohorts have higher levels of negative image of the Soviet Union, the younger cohorts do not possess this view. What to an older generation may be an imbalance in the political system is to the more recent generational cohorts the prevailing equilibrium. It is in the context of these new equilibria that future politics will be conducted. To the extent that the existing political elites, largely drawn from older generations, do not appear to perceive the new states of parity as do the active and aware younger generations, generational strains and conflicts can be expected to emerge. The significance of this proposition is enhanced when it is recognized that the issue of Soviet-American strategic balance is not the only issue in which a new equilibrium has emerged; similar situations may be perceived in the domains of civil rights, domestic welfare spending, international empire versus nationalism, American hegemony in Asia, European independence, etc.

The above propositions and their implications are but examples of the kinds of general propositions which can be constructed from the cohort and life-stage trends defined empirically within our foreign policy data. Hopefully, the importance of the age variable, especially in its conflict of interpretations, will be recognized by scholars interested in many policy problems. Specialists in the many fields of political behavior are in the best position to read these foreign policy trends for their varying specific implications. These few examples do indicate, however, that significant statements concerning political behavior and

social change can be fashioned from empirical analysis which is conceptually linked to what at first might appear to be a simple variable, but a variable which, when investigated with the appropriate methodological orientation, can yield powerful explanatory and predictive statements.

#### 10.4 The Future of Cohort Analysis in Political Science

As an overview of this study, the present chapter has attempted to demonstrate the generalization of the foreign policy findings to other political and social domains. The allocation of cohort and life-stage attributes to the public policy attitude paradigm demonstrated the kinds of attitudes for which it might be expected that the influence of the generational experience or the aging process will be greater. The presentation of general propositions concerning political behavior which were constructed from the foreign policy data similarly demonstrates ways in which these attitudinal data, analyzed from the perspective of cohort and life-stage, can lead to testable hypotheses in other behavioral domains. As stated previously, however, the focus here has not only been upon the particular substantive findings yielded by the present analysis of age, but also upon the development and demonstration of the methodological tools necessary for the analysis of age in general. The final section of this study, therefore, will be directed toward describing the general utility of cohort analysis for the empirical investigation of problems related to the kinds of trend analyses carried out here, as well as other research tasks of interest to contemporary political scientists.

There are, of course, certain "obvious" future tasks for cohort analysis, some of which have already been described. A first task would be a more thorough analysis of the foreign policy content of the data analyzed in the present study since our own interest has been in the structure of cohort and life-stage trends rather than in the foreign policy attitudes per se. Other straightforward extensions of cohort analysis include the study of attitudes toward other problems of public policy, as well as studies of other national populations.

Chapter Four described a number of permutations of the basic structure of cohort analysis which can be employed to investigate a variety of problems. Students of history, for example, are just beginning to view public opinion archives as a source of data; the historian may choose a single cohort or a set of cohorts and trace patterns of behavior through time. It is unfortunate that a recent edition of the Public Opinion Quarterly<sup>1</sup> which was devoted to the use of public opinion analysis in historical studies did not contain any articles demonstrating the use of public attitudes as indicators of historical or generational trends. The present study, as indicated earlier, may be considered as an example of empirical political history. A series of related research questions which can be approached using cohort analysis are those which focus upon the definition of a generation. Experimentation with different cohort intervals would allow for the specification of the kinds of events which appear to delineate

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<sup>1</sup>The central controversy in this issue of the journal revolved around the question of whether or not the historian should or could capture the essence of public opinion in a given historical period. See: Lee Benson, "An Approach to the Scientific Study of Past Public Opinion," Public Opinion Quarterly, 31 (1968), pp. 522-667.

one generation from another. Similarly, the "half-life" of a major political event can be traced through cohort analysis, as can be the threshold experiences of political socialization.

In addition to these relatively straightforward extensions of cohort analysis, there are a number of suggestions which can be made concerning the use of the technique in the investigation of related research problems. Such suggestions will be made under the following four categories: (1) cohort analysis as an empirical scenario for other research, (2) cohort analysis as a basis for estimation and projection of trends, (3) cohort analysis as a provider of analytic individual political actors, and (4) cohort analysis as a basis for the isolation of valid longitudinal data sets.

#### 10.4.1 The Empirical Scenario

One of the basic problems in understanding indicators of political change is the lack of any base line to which the apparent change can be compared. If it is found, for example, that French respondents "no longer" support the North Atlantic Treaty Organization, to what extent is this apparent change the result of a dramatic shift of opinion, to what extent has this sentiment been developing over a long period of time, or to what extent has no real change taken place? The cohort analysis of existing public opinion records can provide the background for the evaluation of these kinds of statements. The first way in which cohort analysis can provide an empirical scenario to current behavior, therefore, is the comparison of a new attitudinal study with the trends previously found through cohort analysis.

Although not all of the specific attitudes with which one is interested in the late 1960's may have been measured over the course of the past thirty years, more general question-sets can be developed, as has been done in the present study. For example, there has been some recent interest in American attitudes toward ballistic missile systems.<sup>2</sup> Although surveys in previous years do not include many items focusing directly on missiles, question-sets concerning Military Capability or Military Extension can be measured over the course of a number of years, and the results compared with the specific attitude survey in which questions concerning missile systems are asked. In fact, the first extension of the present study will be the comparison of cohort and life-stage trends in foreign policy attitudes, as a scenario, with American public attitudes toward ballistic missiles.<sup>3</sup>

A second way in which the cohort scenario may be employed is in the evaluation of the sensitivity of public opinion to major political events. Attitude surveys taken at several points during an international crisis, for example, may indicate that certain types of individuals or groups tend to panic or tend to defensively ignore the crisis altogether. If these event sensitivity measurements were analyzed within the context of longitudinal trends, then the analyst would be in a much better position to evaluate the impact of the specific crisis event.

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<sup>2</sup>R. H. McMahan, R. E. Ehrlich, and A. T. Wald, Public Opinion and Ballistic Missile Defense. Santa Barbara, California, General Electric Company, TEMPO Report Number RM-64TMP-50, September, 1964.

<sup>3</sup>The data for this extension, analyzed in an exploratory manner in the TEMPO report cited above, are described in: Jiri Nehnevajsa, Civil Defense and Cold War Attitudes: Data Book for the 1964 National Probability Sample Study. Research Office of Sociology, Department of Sociology, University of Pittsburgh, December, 1964. A copy of these data are included in the survey data bank of the Oak Ridge National Laboratory.

A third use of the scenario which cohort analysis can provide is in the study of elite-mass relationships. In Chapter Four it was suggested that the attitudes and behavior of contemporary elites could be analyzed from a cohort perspective in order to learn if elites were responding to current problems according to the climate of opinion which was prevalent when the elites were in their formative years. It could be argued, however, that elite cohorts cannot be legitimately compared with mass public cohorts due to the elite selection process; that is, elites are basically different from the mass. As one means of providing a linkage between cohort analyses of the mass public and top governmental decision-makers, we suggest the cohort analysis of congressional voting behavior. In such a study, birth cohorts of congressmen could be used in an identical fashion as used in the present study of public attitudes, with records of individual congresses replacing sample surveys, and actual votes replacing interview responses. Since legislators are at the same time both representatives of mass opinion as well as elite moulders of that opinion, the cohort analysis of legislative voting would provide the linkage between the processes which may be at work in differentiating mass opinions and elite opinions.

#### 10.4.2 Estimations and Projections

The simplest way to estimate future parameters of behavior patterns is to establish a trend line for a given number of observations, and then extrapolate that trend line into future time periods. Such experiments provide one element of scientific research, that of the testing of a theory or model through pragmatic prediction. If the model succeeds

or fails to predict, however, the explanatory question may still be left unanswered. Cohort analysis allows the investigator to construct his estimations and projections upon a data set which is itself linked to a longitudinal process, that is, the aging or the generational process. When trends are computed on such a basis, the subsequent estimations may yield not only the parameters of the future, but also the explanatory linkage between estimation and theory.

Three examples of the utility of cohort analysis in this context will be described. In a series of recent articles, Glenn and his colleagues have attempted to use the secondary analysis of attitude surveys to estimate trends in intra-population differences across a number of social, political, and personal attitudes.<sup>4</sup> Differences at one point in time between analytic groups--occupation groups, regional groups, religious groups, etc.--are compared with the similarly calculated differences at a second point in time. Glenn is attempting to determine if the American society is becoming more or less homogeneous with respect to the various attitudinal indicators. Unfortunately, many of Glenn's conclusions may be rendered invalid due to a methodological artifact: the group measured at time one may not be the same group measured at time two, even if the definition of the group is the same.

Regional groups provide the clearest example of this potential artifact. Since 1940 there have been major population shifts within the United States, especially to the West Coast. Migration to California,

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<sup>4</sup>See, for example: Leonard Broom and Norval D. Glenn, "Negro-White Differences in Reported Attitudes and Behavior," Sociology and Social Research, 50 (1966), pp. 187-200. This series includes five additional articles, all listed in the Bibliography under "Norval D. Glenn."

for example, has been a selective phenomenon with certain states, age groups, and economic classes contributing disproportionately to California's in-migration.<sup>5</sup> Therefore, the comparison of attitude patterns in 1940 with similar patterns in 1960 is not a comparison of the same persons, that is, it is not a comparison of equivalent units of analysis. The use of cohort analysis in this kind of research, however, would allow the analyst to locate equivalences across units of analysis. One may legitimately ask if the cohorts which occupied various sociological strata in 1940 are different from the cohorts which occupy comparable strata in 1960. When the problem is analyzed in the cohort context, the investigator may be in a better position to validly conclude that the historical direction of society is toward greater or lesser differentiation of attitudes.

Another area of study which would benefit from the introduction of cohort analysis is one which has interested political scientists for a long time, namely, the analysis of political party identification. In Chapter Four of the present study the party identification data published by Crittenden was subjected to reanalysis from the cohort perspective with the result that the author's original conclusions were found to be less valid than he claimed. A more expansive study in this area is Key's analysis of the relationships among party identification, issue position, and presidential voting.<sup>6</sup> Key's investigation focused mainly upon two

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<sup>5</sup>An analysis of the impact of migration upon patterns of political behavior in California may be found in: Neal E. Cutler, "Ecological Dimensions of Migrant Voting Behavior in the Los Angeles Standard Metropolitan Statistical Area," Los Angeles, Population Research Laboratory, University of Southern California, 1965.

<sup>6</sup>V. O. Key, The Responsible Electorate. Cambridge, Massachusetts, The Belknap Press, 1966.

derived groups, the Standpatters, who voted for the same party in successive presidential elections, and the Switchers, who changed their partisan votes. If one wanted to project the magnitude of voting stability and switching, Key's data could be reanalyzed from the cohort perspective.

The following important question is one to which political scientists should attend: has there been a substantial change in the basic nature of politics so that successive generational cohorts manifest a greater or a lesser tendency to become Standpatters or Switchers? One could hypothesize, for example, that new voters who entered the political system at a time after the peak strength of the New Deal coalition will possess a greater tendency toward voting shifts. Another possible hypothesis may be stated as: Republican identifiers socialized during the Eisenhower years will tend to be Standpatters to a greater degree than will be Democratic identifiers socialized during this period. Although Key's analysis does indicate the magnitude of stability in past presidential voting, as well as some suggested explanatory reasons for the various voting patterns, cohort analysis of these data would provide the empirical basis for forecasting the future magnitude of voting stability.

The final kind of forecasting suggested here is the most general: the juxtaposition of cohort political data with population cohort estimates. As pointed out in Chapter Four, cohort analysis is a technique originally devised by demographers for the study of whole populations. Using the technique, demographers are able to combine birth rates and mortality rates so that the size and structure of future populations

can be estimated. If it is found, for example, that certain types of political behavior are strongly associated with old age, and it is known that in fifty years the old age population of a political system will be of a given proportion, an estimate can be made of the magnitude of that political behavior in fifty years.<sup>7</sup>

Estimates of future political behavior patterns must consider, of course, that significant events may occur which alter the range of potential political problems and solutions. Estimates based upon cohort analysis, however, may still be validly made if the reactions of past cohorts to different classes of politically-relevant events have been studied. In this situation, forecasting becomes an exercise in contingency: If an event of Event Class E occurs, then Cohort C is likely to respond in R ways with a probability of P. The future of political science, as Lasswell has argued, demands a variety of different information and data banks. Given the appropriate attitude data banks, event chronology data banks, demographic data banks, and substantive theory banks, contingent political projections of the kind described here may be reliably constructed.<sup>8</sup>

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<sup>7</sup>Population estimates are publicly available from the U.S. Department of Commerce. See, for example: U.S. Bureau of the Census, "Projections of the Population of the United States, by Age, Sex, and Color to 1990, with Extensions of Total Population to 2015. Current Population Reports, Series P-25, Number 359, February 20, 1967.

<sup>8</sup>For a description of the wide variety of data and information banks which are potentially of utility to political scientists, see: Karl W. Deutsch, "Information Needs of Political Science," International Federation for Documentation, 1965 Congress, Volume II. Washington, Spartan Books, 1966, pp. 199-203.

#### 10.4.3 Cohorts as Analytic "Individuals"

To this point the discussion has centered upon cohort analysis in terms of discovering historical, generational, and aging process trends in various attitude and behavior patterns. The fact that groups within a sample in 1940 can be theoretically linked with groups in a 1960 sample, through the age variable and cohort analysis, allows the investigator to construct a number of analytic "individuals" whose behavior can be traced through time. The theory behind cohort analysis states that the sample of individuals measured at time one is a sample of the same population group as the sample measured at time two. This logical transition cannot be made if the samples are stratified on the basis of variables other than age. Since most attitude measurement methodology, especially that which focuses upon attitude change, requires successive measurements of the same individuals, there is no direct way in which archival attitude data can be used to address a number of significant questions. Cohort analysis, however, produces analytic groups which are, theoretically, samples of the same individuals; thus, analytic "individuals" may be constructed which can then be used in conjunction with models of attitude change.

Over a decade ago, T. W. Anderson described a number of mathematical models for use in the study of attitude change over time.<sup>9</sup> In the absence of longitudinal studies of substantial duration, as pointed out in Chapter Two, the application of these probability models to politics has not been

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<sup>9</sup>T. W. Anderson, "Probability Models for Analyzing Time Changes in Attitudes," in Paul F. Lazarsfeld (ed.), Mathematical Thinking in the Social Sciences. Glencoe, The Free Press, 1954, pp. 17-66.

widespread. Survey data banks, however, possess many years of attitude measurement across a wide variety of conditions, subjects, and variables. If a way of constructing individual measurements over time could be fashioned from aggregate collections of attitudes, then probability models of the attitude change could be profitably employed. As an extension of the present study, for example, it would be useful to know if the probability that Cohort A will change its attitude is different from the probability that Cohort B will change. The location of significant socialization experiences, as well as the measurement of the "half-life" of an international event, could be better understood with the aid of mathematical models such as those described by Anderson. Similarly, the projection of behavior estimates to future situations should be based upon the varying probabilities of change associated with different classes of attitudes, behaviors, individuals, and events.

A second kind of analysis which may be opened up to students of attitude formation and change through the use of cohorts as analytic individuals is that of formal causal modeling. The initial attempts at causal modeling appearing in the annals of political research are most often based upon data representing a single point in time.<sup>10</sup> In the study of political attitudes it may be conceptually acceptable to state that a given statistical model demonstrates the proposition that support for issue position X "causes" the vote for candidate Y. When the measurements

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<sup>10</sup> See, for example: William E. Miller and Donald E. Stokes, "Constituency Influence in Congress," American Political Science Review, 57 (1963), pp. 45-56; Charles F. Cnudde and Donald J. McCrone, "The Linkage Between Constituency Attitudes and Congressional Voting: A Causal Model," American Political Science Review, 60 (1966), pp. 66-72; and Arthur S. Goldberg, "Discerning a Causal Pattern Among Data on Voting Behavior," American Political Science Review, 60 (1966), pp. 913-922.

of the X and Y variables are made at the same point in time, however, even the statistical model may be unconvincing. Time-series data add a dynamic dimension to causal analysis by facilitating measurement of the hypothesized cause at a time prior to the hypothesized effect. As stated above, however, the limited nature of longitudinal studies of political behavior inhibits the degree to which this kind of dynamic causal modeling can be carried out. The use of population samples analyzed by means of cohort analysis would facilitate the construction of causal models based upon time-series data.

Finally, an important class of questions concerns the ability of the political scientist to distinguish types of individuals or behaviors according to a given set of theoretically important variables. There are a number of techniques which can perform the required kind of analysis if the data base contains observations upon the same individuals. Discriminant function analysis and profile analysis are two statistical techniques which can be used to distinguish between sets of individuals. Assume, for example, that a study in 1968 is able to validly separate individuals who strongly support escalation of the Vietnam War from those who strongly support American unconditional withdrawal from the War. The analyst may be interested in the general profile of attitudes and background characteristics which best discriminates these two groups. In a single sample survey either profile or discriminant analysis can be readily employed. The analyst may also be interested in discovering the kinds of prior political and historical experiences groups of individuals may have encountered which influence attitudes toward the Vietnam War. The foreign policy attitude data analyzed in the present study, for

example, could provide a general background for this kind of analysis. The demands of the statistical techniques, however, require measurements upon the same individuals. Cohort analysis may be used, therefore, to provide a series of measurements, over time, on the same population groups. The subsequent determination of the best-fit profiles of these measurements in relation to the Vietnam War support/opposition attitudes could provide a significant amount of information concerning the dynamics of attitude formation at the level of the political system.

#### 10.4.4 Research on the Wording of Survey Questions

All of the future directions in which cohorts analysis can be profitably employed are built upon the assumption that clusters of survey items can be constructed for several time periods, clusters which measure the same underlying attitude. It must be recognized that the wording of questions in successive attitude surveys change over time since the interests of the various primary researchers differ. In the present study, for example, differences in question wording were recognized as a major source of unwanted response variation over the 1946-1966 period. Chapter Six described (a) the lack of attention paid to this problem in previous secondary analyses of political behavior, as well as (b) the operations by which a z-score transformation was applied to our twelve foreign policy question-sets as one approach to the elimination of spurious variation.

Although such statistical solutions as the z-score transformation can adjust for unwanted variation within a given cluster of items, there remains the problem of the initial selection of items into that cluster. There is a need, in other words, to objectively construct sets or clusters

of items measuring a given underlying attitude. In single sample studies, of course, there are several alternatives which may be employed to establish empirically reliable clusters or scales (factor analysis, Guttman scalogram analysis, etc.). As pointed out in Chapter Five, however, these techniques are not directly applicable to multiple-sample research designs.

The problems of comparability of measurement across time periods is not unique to the secondary analysis of survey data. A similar situation exists in the study of legislative roll-call voting. The investigator must decide which particular roll-calls in a given session are to be compared with votes in another session. As Clausen recently observed,

Unlike the survey researcher and the psychometrician, the roll call analyst is not given the opportunity to construct the set of items on which his measurements are based. Neither can he repeat the measurements utilizing the same set of items. Instead he must base his measurements on items that emerge at the different points in time.<sup>11</sup>

In his treatment of this measurement problem in the context of roll-call voting studies, Clausen was somewhat overoptimistic in his evaluation of "the survey researcher," as our own efforts in the secondary analysis of survey data have illustrated. Like the student of legislative voting, the secondary analyst has no choice in creating the items on which subsequent measurements are made. Clausen's model of longitudinal measurement identity, therefore, when combined with the products of cohort analysis, may prove to be a significant contribution to survey research.

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<sup>11</sup>Aage R. Clausen, "Measurement Identity in the Longitudinal Analysis of Legislative Voting," American Political Science Review, 61 (1967), pp. 1020-1021.

The logic of Clausen's model of measurement identity rests upon the pattern of interrelationships between two (or more) behavior dimensions and other variables. Items which purport to measure behavior dimension A, as contrasted to dimension B, should produce the following three conditions. (1) The intercorrelations among the A items at  $T_1$  (time one) should be stronger than the correlations of A items to B items at  $T_1$ . The same condition holds for  $T_2$ . (2) A items at  $T_1$  should have strong correlations with A items at  $T_2$ . (3) The pattern of correlations between A items and other variables at  $T_1$  should be the same as the similarly constructed pattern for  $T_2$ . All correlations, of course, should be calculated across a common set of political actors.

The first condition is easily accomplished since it requires only cross-sectional correlations at each time period. The remaining conditions require, however, a set of measurements on the same individuals for two or more points in time. The study of legislative voting can focus upon a subset of representatives who in fact voted in each of the time periods under consideration. In the context of secondary analysis of survey data, however, a common set of political actors cannot be obtained, except in the case of cohort analysis. The logic of cohort analysis allows groups within surveys at  $T_1$  and  $T_2$  to be considered as the same political actors. Each of the surveys, especially if they are of the type employed in the present study, will be rich in the diversity of "other variables" which can be used to construct the pattern of correlations required at each point in time. Under these conditions the combination of cohort analysis and Clausen's model of measurement identity can yield clearly defined attitudinal dimensions on which a substantial amount of significant longitudinal research can be accomplished.

## APPENDIX A

## TEXT OF ITEMS USED FOR EACH SAMPLING POINT

## IN EACH QUESTION-SET

1. Salience

- 1946: Which issue interests you most? Combined with:  
Which is second most interesting to you? (AIPO 379)
- 1951: What do you think is the most important problem facing the entire country today? (AIPO 480)
- 1956: \*
- 1961: What do you think is the most important problem facing the entire country today? (AIPO 648)
- 1966: Which one of these do you think is the most important problem facing the U.S.? Combined with:  
Which one do you think is the next most important problem? (NORC 876)

2. Crisis Awareness

- 1946: Have you followed the discussion regarding the Jewish plans to make Palestine a Jewish nation? (AIPO 378)
- 1951: \*
- 1956: \*
- 1961: Have you heard or read about the dispute between the Western Allies and Russia over Berlin? (AIPO 649)
- 1966: Have you discussed any aspects of the current Vietnam situation with anyone in the past two weeks? (NORC 876)

3. Expectation of Crisis Escalation

- 1946: (If you have followed discussion regarding plans to make Palestine a Jewish nation) Do you think the Arabs will go to war to prevent the Jews from making Palestine a Jewish nation? (AIPO 378)
- 1951: Do you think the United States is now actually in World War III--or do you think the present fighting in Korea will stop short of another world war? (AIPO 480)
- 1956: \*
- 1961: (If you know of the Berlin dispute) Do you think the Berlin crisis will end in war, or not? (AIPO 647)

1966: What do you think is the most likely ending of the current Vietnam situation? (NORC 876)

#### 4. Expectation of War

1946: Do you think the United States will find itself in another war within, say, the next twenty-five years? (AIPO 379)

1951: Do you think the United States will find itself in another world war within, say, the next year? Combined with:

(If you don't think the United States will be in another world war within the next year) How about within the next five years? (AIPO 477)

1956: Do you think we are likely to get into another world war in your lifetime? (AIPO 566)

1961: Do you think we are likely to get into another world war in the next five years? (AIPO 650)

1966: What is the likelihood that World War III will end the Cold War? (NORC 876)

#### 5. Negative Economic Expectations

1946: Do you think there will be a serious business depression in the United States within the next ten years? (AIPO 375)

1951: Do you think the prices of most things you buy will be higher, lower, or about the same six months from now? (AIPO 472)

1956: Many newspaper writers are making their predictions about what will happen during the coming year. What do you think will happen in 1957 about prosperity--will business in general be better or worse? (AIPO 576)

1961: Speaking generally, would you say that your standard of living--things you can buy or do--is going up, going down, or remaining the same? (AIPO 652)

1966: \*

#### 6. Expected Local Nuclear Danger

1946: Suppose the United States should fight in another war within the next 25 years. How much danger do you think there would be of an atomic bomb being dropped in the place where you live? (NORC 144)

1951: Living here in this city (community) would you feel reasonably safe if an atomic (atom bomb) war should come or not? (AIPO 470)

1956: Do you think the area where you live would be wiped out? (If there is another war...) (AIPO 466)

1961: If we should happen to get into an all-out nuclear war, do you think that this locality would be one the Russians would particularly want to bomb, or not? (AIPO 649)

1966: In case of nuclear war, how great a danger do you think there is that the area around here would be a target? (NORC 876)

7. Negative Image of the Soviet Union

1946: As you hear and read about Russia these days, do you believe Russia is trying to build herself up to be the ruling power of the world, or is Russia just building up protection against being attacked in another war? (AIPO 375)

1951: Do you think the government of Russia wants a war with the United States at this time? (AIPO 480)

1956: (RESPONDENT HANDED SCALOMETER) You notice that the ten boxes on this card go from the highest position of plus 5--or something you like very much--all the way down to the lowest position of minus 5--or something you dislike very much. Please tell me how far up or how far down the scale you would rate Russia. (AIPO 576)

1961: If war should come, do you think it is more likely to arise through the U.S., Russia, or some other way? (AIPO 647)

1966: Which is the most likely way in which a world war will start, if it should come? (NORC 876)

8. Perceived Soviet Superiority

1946: \*

1951: From what you have heard or read, who would you say is better prepared for war right now? (AIPO 477)

1956: Would you say the United States or Russia is winning the propaganda war--that is, doing a better job of winning people around the world to its point of view? (AIPO 566)

1961: Which country--the United States or Russia--do you think is ahead in the field of long-range missiles and rockets? (AIPO 647)

1966: Which one represents best the disarmament situation you expect most in the next five years? Combined with:

Which one would you guess the U.S. wants most? and

Which one would you say Russia wants most? (NORC 876)\*\*

9. Military Capability

1946: The Selective Service draft law expires in May. Do you think Congress should or should not vote to continue the draft law for one year? (AIPO 367)

1951: If the Korean War is brought to an end soon, do you think the United States should continue our defense program as planned, or do you think the defense program should be reduced? (AIPO 477)

- 1956: \*
- 1961: Since November, 1958, the U.S. and Russia have been trying to reach a permanent agreement on the control and inspection of nuclear bomb tests. During this period each country voluntarily agreed not to conduct any tests, but no permanent agreement has been reached. Do you think the United States should resume tests at this time, or not? (AIPO 652)
- 1966: What is the desirability of the United States having anti-missile missiles so effective in shooting down enemy missiles that no enemy would think of attacking us? (NORC 876)

#### 10. Advocacy of War

- 1946: Do you think the United States should declare war on Russia now? (AIPO 378)
- 1951: Do you think the United States should start an all-out war with Communist China, or not? (AIPO 471)
- 1956: \*
- 1961: (If you have heard or read about the dispute between the Allies and Russia over Berlin...) If Communist East Germany closes all roads to Berlin and does not permit planes to land in Berlin, do you think the United States and its allies should or should not try to fight their way into Berlin? (AIPO 650)
- 1966: \*

#### 11. Military Extension

- 1946: Churchill says that the U.S. and Great Britain should make a permanent military alliance--that is, agree to come to each other's defense immediately if the other is attacked? Do you approve or disapprove of this policy? (AIPO 367)
- 1951: Some people say that another world war is more likely to start if the United States sends additional soldiers to Europe. Other people say that our sending additional soldiers to Europe will more likely prevent another world war. With which group do you, yourself, agree? (AIPO 470)
- 1956: \*
- 1961: (If you know of the Berlin dispute...) Do you think we should keep American forces in Berlin--along with British and French forces--even at the risk of war? (AIPO 648)
- 1966: \*

#### 12. Non-Military Extension

- 1946: General Mark Clark believes that if we make a loan of 150 million dollars to Austria it may help to keep that country

from coming under the control of Russia. Do you think we should make this loan to Austria? (AIPO 379)

- 1951: Do you think Congress should or should not vote about 8 1/2 billion dollars to European countries for military equipment and economic aid this coming year? (AIPO 477)
- 1956: During recent years, Congress has appropriated about 4 billion dollars each year for countries in other parts of the world to help prevent their going Communistic. Should Congress appropriate the same amount this year, or not? (AIPO 576)
- 1961: Do you think the interests of the United States have actually been helped by the U.S. Foreign Aid program during the last five years, or not? (AIPO 652)
- 1966: Various national programs frequently compete before Congress for financial support. I would like your opinion about the following programs, but please keep in mind that it is very unlikely that enough funds will be available for all of them: Aid to Developing Nations? (NORC 876)

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\*An asterisk indicates that no data are available for this sampling point, i.e., no question was asked in a national survey which would serve as an indicator of the particular question-set.

\*\*In order to estimate the respondent's perception of Soviet superiority, three questions were cross-tabulated. The respondent's own perception of the most likely disarmament situation (from a multiple choice response category) was cross-tabulated against what the respondent perceived as the disarmament situation desired by the Soviet Union; the respondent's expectation of the most likely disarmament situation was then cross-tabulated against the perceived United States-desired situation. To the degree that a cohort perceived the Soviet-desired disarmament situation as more likely than the American-desired disarmament situation, i.e., the absolute difference between these two cross-tabulations, we considered this as indicative of perceived Soviet superiority.

## APPENDIX B

## COMPLETE CONTROL GROUP COHORT ANALYSIS MEAN Z-SCORE DATA

Separate cohort analyses were run for five control groups, stratified on the basis of the education and sex variables. For each sampling point, across the 1946-1966 period, each of the national samples was stratified into the five different groups. Each control group, thus, yielded a complete set of data analogous to the cohort analysis data for the total samples. The tables in this Appendix, consequently, are directly analogous to Table 7.1 (Cohorts) and Table 8.1 (Life-Stages).

It should be recalled that the cohorts are numbered from historically oldest to historically most recent. The life-stages are numbered from youngest to oldest. The cohort group data thus represent historical or generational trends; the life-stage group data represent maturation or aging process developmental trends.

TABLE B-1

## GRAMMAR SCHOOL COHORT MEAN Z-SCORES

Question-Set	Cohort 1	2	3	4	5	6	Cohort 7
1. Salience	-.73	.38	-.75	.37	.31	1.05	.12
2. Crisis Awareness	-.06	.25	-.36	.63	-.92	-.26	-.99
3. Expectation of Crisis Escalation	.29	0	.15	.61	.51	.06	-.80
4. Expectation of War	-.19	-.48	-.57	-.05	.08	1.09	.31
5. Negative Economic Expectations	-.42	-.54	-.29	-.28	-.40	.90	.18
6. Expected Local Nuclear Danger	.49	.96	-.25	-.12	-.26	1.17	.15
7. Negative Image of U.S.S.R.	.74	-.05	-.12	-.76	-.21	.40	.33
8. Perceived Soviet Superiority	1.06	.68	.33	.44	-.55	-.67	-.21
9. Military Capability	-.04	.43	-.13	.48	.84	.52	.93
10. Advocacy of War	.03	-.04	-.04	.16	.24	-.33	1.36
11. Military Extension	-.28	.07	-.23	.11	-.40	-.16	-1.05
12. Non-Military Extension	-.52	-.32	.64	-.54	-.20	-.31	.61

TABLE B-2

## HIGH SCHOOL COHORT MEAN Z-SCORES

Question-Set	Cohort						Cohort
	1	2	3	4	5	6	7
1. Salience	.05	-.08	-.11	-.35	.72	.51	.81
2. Crisis Awareness	-.80	-.94	-.27	.30	-.10	-.33	.22
3. Expectation of Crisis Escalation	-.52	.68	.23	.31	-.04	-.05	-.51
4. Expectation of War	-.89	-1.21	-.12	.05	-.11	.44	.62
5. Negative Economic Expectations	-.63	.04	-.13	-.39	.53	.44	.31
6. Expected Local Nuclear Danger	-1.23	.08	-.08	1.36	.72	.38	.24
7. Negative Image of U.S.S.R.	-.30	.35	-.08	.11	-.11	.19	-.41
8. Perceived Soviet Superiority	-.29	.03	.49	-.42	-.37	.04	.08
9. Military Capability	-.05	.85	.47	.70	.47	.18	.81
10. Advocacy of War	-.38	-.11	-.27	-.80	.09	.79	.64
11. Military Extension	-.47	-.34	-.61	-.68	-.23	.41	.74
12. Non-Military Extension	.78	-.12	.21	.16	-.04	-.07	.36

TABLE B-3

## COLLEGE COHORT MEAN Z-SCORES

Question-Set	Cohort 1	2	3	4	5	6	Cohort 7
1. Salience	-.90	-.57	0	-.13	.01	.86	.56
2. Crisis Awareness	-1.66	.24	-.29	-.65	.41	-.03	.13
3. Expectation of Crisis Escalation	-.40	.09	-.14	.19	-.44	.53	.35
4. Expectation of War	.57	-.19	.03	-.13	.25	.07	.69
5. Negative Economic Expectations	-1.26	-.39	.33	.29	-.06	.27	.78
6. Expected Local Nuclear Danger	.56	.21	-.13	.33	.88	.42	.16
7. Negative Image of U.S.S.R.	.40	-.79	.63	-.12	.38	-.18	.33
8. Perceived Soviet Superiority	-.55	-.31	-.49	.66	-.02	.31	-.09
9. Military Capability	.07	-.99	.90	.18	.21	-.08	.62
10. Advocacy of War	.06	.45	-.78	.30	.18	-.14	.45
11. Military Extension	-.09	-1.26	-.46	-.19	.12	.13	-.21
12. Non-Military Extension	-.37	.54	-.06	.06	0	.60	.14

TABLE B-4

## MALE COHORT MEAN Z-SCORES

Question-Set	Cohort						Cohort
	1	2	3	4	5	6	7
1. Salience	-.72	-.48	-.37	0	.45	.49	.27
2. Crisis Awareness	-1.07	-.38	-.33	.70	-.47	.10	.81
3. Expectation of Crisis Escalation	.17	.31	.21	-.21	.01	.17	.26
4. Expectation of War	-.38	-.57	.50	-.36	.09	.16	.86
5. Negative Economic Expectations	-.41	-.18	-.21	-.55	-.41	.40	.77
6. Expected Local Nuclear Danger	-.64	.53	-.93	.55	.86	.81	.26
7. Negative Image of U.S.S.R.	1.00	-.03	.33	-.53	.20	.06	-.25
8. Perceived Soviet Superiority	.11	-.67	-.17	-.20	-.16	.02	.04
9. Military Capability	.11	.11	.79	.98	.65	.14	.78
10. Advocacy of War	-.04	.20	-.92	-.43	-.01	.66	.88
11. Military Extension	0	-.45	-.91	-.48	.18	.17	.32
12. Non-Military Extension	-.17	-.07	.74	-.25	.22	.20	.35

TABLE B-5

## FEMALE COHORT MEAN Z-SCORES

Question-Set	Cohort						Cohort 7
	1	2	3	4	5	6	
1. Salience	-.83	.20	-.67	.10	.64	1.05	.72
2. Crisis Awareness	-.50	-.45	-.42	-.05	-.39	-1.02	-.09
3. Expectation of Crisis Escalation	.40	.35	.24	.09	.14	.37	.78
4. Expectation of War	.02	-1.40	-.98	.39	-.09	.77	.79
5. Negative Economic Expectations	-.98	-.65	.18	-.15	.32	1.07	.35
6. Expected Local Nuclear Danger	-.14	.14	-.17	.76	.47	.53	.17
7. Negative Image of U.S.S.R.	.78	.70	-.28	-.60	.18	.13	-.46
8. Perceived Soviet Superiority	-.09	.53	.51	.31	-.68	-.16	.19
9. Military Capability	-.08	.26	-.10	.25	.58	.27	1.26
10. Advocacy of War	.11	-.11	.07	-.23	.32	-.06	.24
11. Military Extension	-.94	-1.01	-.17	-.14	-.17	.49	.79
12. Non-Military Extension	-.02	-.31	.22	.19	.09	.54	.74

TABLE B-6

## GRAMMAR SCHOOL LIFE-STAGE MEAN Z-SCORES

Question-Set	Life-Stage										Life-Stage
	1	2	3	4	5	6	7	8	9	10	11
1. Salience	.89	.11	.28	.23	-.20	-.01	-.08	-.41	-.11	.24	-.94
2. Crisis Awareness	.26	-1.13	-.37	.16	-.17	-.04	.52	.52	-.13	.44	-.06
3. Expectation of Crisis Escalation	-.31	-1.81	1.03	-.08	.45	.94	.25	.18	.09	-.50	-.24
4. Expectation of War	0	.81	.40	.71	-.02	.29	-.53	.08	-.91	-.30	-.51
5. Negative Economic Expectations	1.69	-.23	.07	.05	-.28	-.45	-.47	.21	-.94	-.24	.58
6. Expected Local Nuclear Danger	-.14	-.45	-.23	-.19	.14	.50	.40	.36	.49	.69	.51
7. Negative Image of U.S.S.R.	.65	.16	-.54	.11	-.61	-.06	-.37	-.19	.20	.25	.40
8. Perceived Soviet Superiority	-1.14	-.50	-.70	.29	.11	-.41	.24	.48	.89	.32	.40
9. Military Capability	-1.15	.42	.16	.47	.73	.33	.63	-.80	-.65	.12	-.27
10. Advocacy of War	.08	.65	-.12	-.02	-.02	.71	-.03	-.15	-.21	-.51	-.37
11. Military Extension	-.33	-.02	-.33	.86	-.21	-.05	.02	.26	-.37	.02	.14
12. Non-Military Extension	.99	.26	.18	.07	-.11	.08	-.26	-.16	-.25	-.10	-.70

TABLE B-7

## HIGH SCHOOL LIFE-STAGE MEAN Z-SCORES

Question-Set	Life-Stage	2	3	4	5	6	7	8	9	10	Life-Stage
	1										11
1. Salience	.97	.26	.23	-.14	.62	.56	-.16	-.41	-.92	-.15	-.87
2. Crisis Awareness	-.20	.07	-.49	.30	.25	.32	.07	.37	-.39	.26	-.56
3. Expectation of Crisis Escalation	.61	-.03	.07	-.50	-.13	.66	-.06	-.41	.29	-.02	-.47
4. Expectation of War	1.00	1.03	.34	.31	.05	-.55	-.60	.38	-.10	-.63	-1.22
5. Negative Economic Expectations	.54	.13	.32	-.18	.69	-.05	-.81	.10	.59	-1.57	.25
6. Expected Local Nuclear Danger	.71	.25	.89	.35	.50	.46	.93	.16	-.59	-.64	-.88
7. Negative Image of U.S.S.R.	.48	-.16	-.52	-.60	-.04	-.08	.21	.26	-.23	-.09	.77
8. Perceived Soviet Superiority	.46	.46	.02	.20	.13	-.10	-.17	-.79	.61	-.42	-.39
9. Military Capability	-.32	-.06	-.60	-.33	.92	.42	.40	.12	.30	-.97	.10
10. Advocacy of War	.13	.46	.51	.38	.09	.35	-.81	-1.48	.87	-.23	-.27
11. Military Extension	-.14	.04	-.05	-.20	-.01	.09	-.95	-1.27	.81	.93	.76
12. Non-Military Extension	-.04	.73	.06	.27	-.16	.22	-.06	.09	-.70	.18	-.59

TABLE B-8

## COLLEGE LIFE-STAGE MEAN Z-SCORES

Question-Set	Life-	2	3	4	5	6	7	8	9	10	Life-
	Stage 1										Stage 11
1. Salience	1.26	.31	1.10	.05	.29	-.54	-.24	.24	0	-1.62	-.86
2. Crisis Awareness	-.11	.18	-.04	-.17	.25	.19	.60	-.39	.46	-.95	-.02
3. Expectation of Crisis Escalation	-.06	-.32	-.08	.05	.19	.14	-.50	.39	1.34	-.21	-.94
4. Expectation of War	.78	.54	-.13	.19	.53	.29	-.11	-.36	-.22	-.29	-1.21
5. Negative Economic Expectations	.02	.41	-.13	.76	-.24	.07	.26	-.71	-.01	.54	-.98
6. Expected Local Nuclear Danger	-.22	1.17	.18	.46	.77	.35	.55	.42	.54	-.73	-1.25
7. Negative Image of U.S.S.R.	-.05	-.36	.23	.54	.33	.02	.16	-.01	-.58	-.71	.43
8. Perceived Soviet Superiority	.76	0	-.18	.35	.11	-.06	.22	-.47	-.13	.27	-.87
9. Military Capability	-.32	.17	.22	.60	.29	-.62	-.40	.16	.12	-.64	.42
10. Advocacy of War	.29	-.07	-.02	.66	-.36	.92	.28	-1.27	-.30	.70	-.83
11. Military Extension	.07	-.23	-.49	-.10	.03	-.40	-.26	-.47	-.89	1.65	1.08
12. Non-Military Extension	.18	.02	.09	.27	-.20	.47	.02	-.72	.73	-.86	0

TABLE B-9

## MALE LIFE-STAGE MEAN Z-SCORES

Question-Set	Life- Stage										Life- Stage
	1	2	3	4	5	6	7	8	9	10	11
1. Salience	2.14	.23	.50	.10	-.19	.30	-.31	-.78	-.59	-.44	-.95
2. Crisis Awareness	.41	.16	.35	.89	.65	-.08	-.41	.47	-.88	-.44	-1.10
3. Expectation of Crisis Escalation	.99	-.64	-.17	.16	-.22	.55	-.26	-.34	.33	.17	-.55
4. Expectation of War	.89	.96	-.52	.01	.43	.17	-.11	-.14	-.18	-.59	-.92
5. Negative Economic Expectations	.51	-.37	.55	.10	.21	-.89	-.86	.47	.13	-.61	.76
6. Expected Local Nuclear Danger	-.05	.95	.16	.62	.49	.11	.69	.02	-.21	-.73	.04
7. Negative Image of U.S.S.R.	-.83	-.27	-.35	.09	.01	.05	.61	-.08	.08	-.09	.77
8. Perceived Soviet Superiority	1.21	-.26	.49	.68	-.13	-.82	-.44	-.48	.42	-.59	-.08
9. Military Capability	-.48	-.15	.25	.24	1.05	-.32	.74	-.21	.01	-.36	-.77
10. Advocacy of War	.48	.72	.66	.23	-.48	.49	-.37	-.81	-.05	-.10	-.77
11. Military Extension	.86	-.06	.52	.28	-.30	-.27	.35	-.82	-.48	.23	-.30
12. Non-Military Extension	.42	.62	.44	.10	-.25	-.01	-.23	-.02	.19	-.16	-1.10

TABLE B-10

## FEMALE LIFE-STAGE MEAN Z-SCORES

Question-Set	Life- Stage	2	3	4	5	6	7	8	9	10	Life- Stage
	1										11
1. Salience	.62	.71	.60	.18	.49	.15	.01	.25	-.53	-.73	-1.74
2. Crisis Awareness	.41	.19	-.13	.26	-.75	.06	.56	-.16	.21	.09	-.74
3. Expectation of Crisis Escalation	-.32	-1.08	.07	-.44	.20	.90	0	.30	.98	-.88	.26
4. Expectation of War	.72	.64	.40	.67	-.25	.05	-.68	.15	-.90	-.31	-.49
5. Negative Economic Expectations	.28	.50	.35	.13	.46	.27	-.28	-.15	-.75	-.61	-.20
6. Expected Local Nuclear Danger	.96	.77	.59	.03	.34	1.14	.45	.04	-.39	-.02	-1.71
7. Negative Image of U.S.S.R.	-.10	-.64	-1.06	-.42	-.48	-.11	.21	.31	-.27	1.22	1.33
8. Perceived Soviet Superiority	.51	.53	-.87	-.02	.50	-.29	.61	-.31	.22	.46	-1.35
9. Military Capability	-.27	.41	-.42	.28	.55	.40	-.13	-.42	-.46	-.11	.17
10. Advocacy of War	.18	-.11	-.12	.52	.41	.72	-.33	-1.43	.30	-.45	.31
11. Military Extension	.21	.26	-.29	.43	.06	.12	-.91	.06	-.77	.28	.57
12. Non-Military Extension	.59	.51	.10	.67	-.02	.71	0	-.42	-.81	-.65	-.67

APPENDIX C

MEAN DEVIATION DATA FOR ALL CONTROL GROUPS

TABLE C-1  
 COMPLETE MEAN DEVIATION DATA FOR TOTALS AND FIVE CONTROL GROUPS<sup>a</sup>

Question-Set	Totals		Grade School	
	Cohort	Life-Stage	Cohort	Life-Stage
1. Saliency	.48	.47	.59	.75
2. Crisis Awareness	.72	.71	.67	.70
3. Expectation of Crisis Escalation	.70	.65	.72	.55
4. Expectation of War	.51	.62	.51	.67
5. Negative Economic Expectations	.55	.71	.60	.58
6. Expected Local Nuclear Danger	.69	.87	.74	.92
7. Negative Image of U.S.S.R.	.49	.65	.58	.71
8. Perceived Soviet Superiority	.64	.61	.57	.66
9. Military Capability	.38	.75	.40	.63
10. Advocacy of War	.63	.61	.54	.66
11. Military Extension	.66	.71	.73	.71
12. Non-Military Extension	.49	.42	.54	.76

TABLE C-1  
(continued)

Question-Set	High School		College	
	Cohort	Life-Stage	Cohort	Life-Stage
1. Saliency	.64	.66	.65	.52
2. Crisis Awareness	.70	.75	.63	.73
3. Expectation of Crisis Escalation	.66	.74	.71	.65
4. Expectation of War	.51	.55	.64	.64
5. Negative Economic Expectations	.55	.61	.63	.68
6. Expected Local Nuclear Danger	.73	.83	.70	.76
7. Negative Image of U.S.S.R.	.71	.73	.47	.71
8. Perceived Soviet Superiority	.66	.73	.63	.66
9. Military Capability	.58	.71	.59	.69
10. Advocacy of War	.62	.61	.68	.60
11. Military Extension	.67	.58	.52	.51
12. Non-Military Extension	.53	.68	.63	.69

TABLE C-1  
(continued)

Question-Set	Males		Females	
	Cohort	Life-Stage	Cohort	Life-Stage
1. Salience	.59	.48	.46	.55
2. Crisis Awareness	.63	.64	.79	.75
3. Expectation of Crisis Escalation	.64	.70	.62	.55
4. Expectation of War	.71	.67	.47	.65
5. Negative Economic Expectations	.52	.68	.56	.75
6. Expected Local Nuclear Danger	.71	.92	.83	.75
7. Negative Image of U.S.S.R.	.64	.70	.50	.56
8. Perceived Soviet Superiority	.63	.62	.61	.63
9. Military Capability	.45	.73	.60	.80
10. Advocacy of War	.62	.70	.72	.67
11. Military Extension	.59	.71	.72	.69
12. Non-Military Extension	.55	.73	.63	.60

<sup>a</sup>Based upon the transformed z-score data, the mean deviation was calculated within each of the five sampling points (deviation from the mean z-scores given in Table 7.1, Table 8.1, and Appendix B). The average mean deviation across all sampling points was calculated, taking account of missing data points; the entries in Table C-1 represent these average mean deviation scores. The smaller average deviation indicates greater homogeneity of attitude scores; and the greater the homogeneity associated with either the cohort or life-stage effect, the stronger the effect.

## APPENDIX D

## DEMONSTRATION OF THE PUBLIC POLICY ATTITUDE PARADIGM:

## STUDIES OF FOREIGN POLICY ATTITUDES

In the course of the preliminary research and reading done in preparation for this study, a large number of studies of attitudes toward foreign policy has been reviewed. There is a great diversity in the interests and foci of this volume of research, as well as variation in the quality of the studies. Some researchers merely report percentages of given samples who favor a particular proposal or action; others employ foreign policy attitude data to illustrate a theoretical argument not related to the question of foreign policy. The generality of the different findings is also variable as political scientists tend to analyze national samples while psychologists tend to use college sophomores. In spite of this diversity, the allocation of many of these studies to the paradigm developed in Chapter Three imposes some theoretical order on the research literature. The following discussion is intended to be illustrative, rather than exhaustive, of the allocation of various studies to the cells within the paradigm. Complete citations for all of the studies listed in Figure D-1 can be found in the Bibliography; only some of the studies will be noted and discussed here.

The work of M. Brewster Smith has been discussed in Chapter Three. As a psychologist, he has been interested in all three components of the attitude construct as they relate to attitudes toward Russia; thus, his work, like that of other attitude theorists, falls into all three columns.

FIGURE D-1

ALLOCATION OF FOREIGN POLICY STUDIES TO PUBLIC POLICY ATTITUDE PARADIGM<sup>a</sup>

Public Policy Object Dimension	Attitude Dimension		
	Cognitive	Affective	Behavioral
Actors	Smith (1947) Dillehay (1964) Walsh (1944) Roper (1953) Hero (1966)	Smith (1947) Bobrow & Cutler (1968)	Smith (1947) Somit (1948)
Things	Douvan & Withey (1953) Kay & Gitlin (1949) Rose (1963) Levine & Modell (1965) Bobrow & Wilcox (1967)	Berrien (1963) Rose (1963) Levine & Modell (1965)	Berrien (1963) Rose (1963) Levine & Modell (1965) Bobrow & Wilcox (1967)
Events	Almond (1960) Michael (1960) Cutler (1968) Suchman (1953) Verba (1967) Cantril (1940) Jacob (1940)	Cutler (1968) Suchman (1953) Verba (1967)	Belknap & Campbell (1952) Smith (1961) Cutler (1968) Suchman (1953) Verba (1967)

FIGURE D-1

(continued)

Public Policy Object Dimension	Attitude Dimension		
	Cognitive	Affective	Behavioral
Processes	Berrien (1963) Cohen (1966) McClosky (1967) Scott (1953) Williams (1945) Gamson & Modigliani (1966)	Berrien (1963) Barkley (1953) McClosky (1967) Scott (1953) Inglehart (1967) Darr (1963) Schwebel (1963) Allerhand (1965) Gladstone (1955)	Berrien (1963) Miller (1967) Inglehart (1967) Scott (1953) Martin (1965) Bobrow & Cutler (1968)
States	Ekman (1963) Back & Gergen (1963) Farber (1951) Putney & Middleton (1962) Campbell & Cain (1965) Bobrow & Cutler (1968) Farris (1960) Kuroda (1964)	Ekman (1963) Back & Gergen (1963) Farber (1951) Putney & Middleton (1962) Farris (1960) Farber (1955)	Ekman (1963) Back & Gergen (1963) Farber (1951)

101

<sup>a</sup>Complete references for all studies will be found in the Bibliography.

Walsh, as a contrasting example, has also studied attitudes toward Russia.<sup>1</sup> His particular interest, however, was in the changing patterns of the recognition of the Soviet Union during World War II, and thus his work concentrates only upon the cognitive component. Bobrow and Cutler have also studied attitudes toward the Soviet Union; the study, however, includes only public evaluations of this particular foreign policy actor as an "enemy," that is, the extent to which the Soviet Union is seen as threatening and menacing to the American public.<sup>2</sup> Although the Soviet Union has been the most popular foreign policy actor to be studied, many attitude surveys often include items on public evaluation of the United Nations. Roper's research report described public perceptions of how good a job the international organization was doing; the many public opinion surveys summarized by Hero extended Roper's inquiry over a number of years.<sup>3</sup>

Probably the most studied foreign policy actors which can be called "things" are fallout shelters and nuclear weapons. In the case of the shelters, the attitude researcher is in a position to estimate not only the respondent's view of the world as a threatening situation, but his potential behavioral responses. Although most of the shelter studies

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<sup>1</sup>M. Brewster Smith, "The Personal Setting of Public Opinions: A Study of Attitudes Toward Russia," Public Opinion Quarterly, 11 (1947), pp. 507-523; William B. Walsh, "What the American People Think of Russia," Public Opinion Quarterly, 8 (1944), pp. 511-522.

<sup>2</sup>Davis B. Bobrow and Neal E. Cutler, "Time-Oriented Explanations of National Security Beliefs: Cohort, Life-Stage and Situation," Peace Research Society (International) Papers, 8 (1968), in press.

<sup>3</sup>Elmo Roper, "American Attitudes on World Organization," Public Opinion Quarterly, 17 (1953), pp. 405-442; Alfred O. Hero, "The American Public and the UN, 1954-1966," Journal of Conflict Resolution, 10 (1966), pp. 436-475.

demonstrate that few individuals actually build their own shelters, such analyses do offer interesting opportunities to relate behavior or action tendencies with the other components of an attitude. Thus, Levine and Modell, and Berrien, et al., were able to study the processes of attitude formation among shelter owners, potential owners, and those antagonistic to the concept of fallout shelters.<sup>4</sup> The subject of nuclear testing has received much public debate in the postwar years. While Douvan and Withey measured public awareness of the peaceful and harmful effects of atomic energy, Rosi went further and analyzed public support for various disarmament proposals.<sup>5</sup> More recently, researchers have begun to analyze attitudes toward alternative forms of nuclear weapons systems. Bobrow and Wilcox, for example, factor analyzed a large number of attitudinal items to determine if individuals cognize antiballistic missile systems as part of, or separate from, other forms of national defense. Similarly, these writers were able to estimate public policy preferences in regard to alternative forms of missile defense systems.<sup>6</sup>

Of the various kinds of foreign policy events about which individuals might have attitudes, war has certainly been the most popular as far as

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<sup>4</sup>F. K. Berrien, C. Schulman, and M. Amarel, "The Fallout-Shelter Owners: A Study of Attitude Formation," Public Opinion Quarterly, 27 (1963), pp. 206-216; Gene N. Levine and Jerome Modell, "American Public Opinion and the Fallout-Shelter Issue," Public Opinion Quarterly, 29 (1965), pp. 270-279.

<sup>5</sup>Elizabeth Douvan and Stephen B. Withey, "Some Attitudinal Consequences of Atomic Energy," The Annals, 290 (1953), pp. 108-117; Eugene J. Rosi, "Mass and Attentive Opinion on Nuclear Weapons and Fallout, 1954-1963," Public Opinion Quarterly, 29 (1965), pp. 280-297.

<sup>6</sup>Davis B. Bobrow and Allen R. Wilcox, Structure of American National Security Attitudes. Oak Ridge National Laboratory Unclassified Document No. ORNL-TM-1818, 1967.

attitude researchers have been concerned. The Cantril and Jacob studies of the 1940's, for example, were simply efforts aimed at tracing the development of American attitudes toward the war as it developed from a European war to a "world" war. "Analysis" was mostly confined to juxtaposition of successive population samples to various wartime events.<sup>7</sup> During the Korean War, Belknap and Campbell studied the effects of foreign policy preferences upon candidate selection in the 1952 election. They also attempted to develop a policy scale concerning alternative actions which the respondent saw as ways of best ending the conflict.<sup>8</sup> In another study of this time, Suchman, et al. surveyed student attitudes toward the war. An attempt was made to relate all three components of an attitude to one another; that is, to what extent did the evaluation of the "value" of the war and the evaluation of the "enemy" as threatening contribute to action tendencies which supported American military involvement in Southeast Asia.<sup>9</sup> In a forthcoming study, Cutler has attempted to replicate this Korean War investigation in the context of the Vietnam War. Again, the aim is to obtain measurements on all three of the attitude components.<sup>10</sup>

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<sup>7</sup>Hadley Cantril, "America Faces the War: A Study in Public Opinion," Public Opinion Quarterly, 4 (1940), pp. 387-407; Hadley Cantril, Donald Rugg, and Frederick Williams, "America Faces the War: Shifts in Opinion," Public Opinion Quarterly, 4 (1940), pp. 651-656; Philip E. Jacob, "Influences of World Events on U.S. Neutrality Opinion," Public Opinion Quarterly, 4 (1940), pp. 48-65.

<sup>8</sup>George Belknap and Angus Campbell, "Political Party Identification and Attitudes Toward Foreign Policy," Public Opinion Quarterly, 15 (1952), pp. 601-623.

<sup>9</sup>E. Suchman, R. Goldsen, and R. Williams, "Attitudes Toward the Korean War," Public Opinion Quarterly, 17 (1953), pp. 171-184.

<sup>10</sup>Neal E. Cutler, "Attitudes Toward the Korean and Vietnam Wars: Replication and Extension," unpublished paper, 1968.

Technological events have also received some attention as objects of foreign affairs attitudes. In these studies the main concern seems to have been awareness of the event as was the case in both Almond's and Michael's study of reaction to the first Soviet Sputnik.<sup>11</sup>

Processes, as Figure D-1 demonstrates, seem to be popular objects for attitudinal analysis. Perhaps this is so because of the social and political importance of many foreign policy processes, such as defense, involvement, and international integration. Unlike the studies of event awareness mentioned above, attitudinal investigations of processes often assume that the basic cognitions are held by the respondent; the task then becomes one of mapping affective evaluations and desired alternative actions and policies. Such is the case both with Inglehart's study of European integration and Martin's report concerning the attitudes of British peace demonstrators.<sup>12</sup> Another kind of interest in attitudes toward international processes is held by psychiatrists and psychoanalysts. Increasingly there has been an interest in describing the ways in which various groups of people, especially children, evaluate the world situation. As in the studies by Allerhand, Darr, and Schwebel, attempts

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<sup>11</sup>Gabriel A. Almond, "Public Opinion and the Development of Space Technology," Public Opinion Quarterly, 24 (1960), pp. 553-572; Donald N. Michael, "The Beginning of the Space Age and American Public Opinion," Public Opinion Quarterly, 24 (1960), pp. 573-582.

<sup>12</sup>Ronald Inglehart, "An End to European Integration?" American Political Science Review, 61 (1967), pp. 91-105; J. Martin, "A Survey into the Beliefs, Affiliations, and Foreign Policy Opinions of the Marchers on the Campaign for Nuclear Disarmament, Easter, 1965: A Preliminary Report," Peace Research Centre, Lancaster, England, 1965. See also: Robin Jenkins, "Who are these Marchers?" Journal of Peace Research, 1967, No. 1, 46-60.

are made to determine the nature of pathologies which might be caused or aggravated by the fears and perceived threats of the Nuclear Era.<sup>13</sup>

As in the case of events, the state-of-affairs which has been studied most is that of war. In this part of the paradigm, however, war is studied not as a particular instance of war, but as a desirable or probable future state. A question which is often included as a standard Gallup poll item asks the respondent if he expects war within, say, five or twenty-five years. Longitudinal series of these questions have been analyzed both by Bobrow and Cutler and by Campbell and Cain.<sup>14</sup>

Often the policy actions which are supported in favor of a given state-of-affairs can be explained in terms of the respondent's initial cognition of the existing state, and how he affectively evaluates various contingent solutions. Studies by Farber and by Back and Gergen have indicated that the individual's overall perspective of time has an effect upon the entire pattern of his cognitions of the world, his fears and hopes for the future, and his eventual policy choices.<sup>15</sup>

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<sup>13</sup>M. E. Allerhand, "Children's Reactions to Societal Crises: Cold War Crisis," American Journal of Orthopsychiatry, 35 (1965), pp. 124-130; John W. Darr, "The Impact of the Nuclear Threat on Children," American Journal of Orthopsychiatry, 33 (1963), pp. 203-204; Milton Schwebel, "Studies of Children's Reactions to the Atomic Threat," American Journal of Orthopsychiatry, 33 (1963), pp. 202-203.

<sup>14</sup>Bobrow and Cutler, op. cit.; Joel T. Campbell and Leila S. Cain, "Public Opinion and the Outbreak of War," Journal of Conflict Resolution, 9 (1965), pp. 318-333.

<sup>15</sup>Maurice L. Farber, "The Armageddon Complex: Dynamics of Opinion," Public Opinion Quarterly, 15 (1951), pp. 215-224; Kurt W. Back and Kenneth Gergen, "Apocalyptic and Serial Time Orientations and the Structure of Opinions," Public Opinion Quarterly, 27 (1963), pp. 427-442; Kenneth Gergen and Kurt W. Back, "Aging, Time Perspective, and Preferred Solutions to International Conflicts," Journal of Conflict Resolution, 9 (1965), pp. 177-186.

Finally, attitude researchers have attempted to determine the conditions under which individuals would support various war-like and peace-like solutions to crises. Kuroda, for example, has attempted to develop a "peace orientation" scale, while Putney and Middleton have attempted to evaluate the orientations toward nuclear stalemate, limited war, and nuclear war.<sup>16</sup>

As this brief overview illustrates, interest in attitudes toward foreign policy matters is widespread, ranging from political scientists to psychotherapists. Of course the differences in disciplinary affiliation instills this research literature with a richness of diversity which some might call chaotic. It has been the burden of this demonstration, however, that such a diverse or chaotic literature can be ordered in ways which are theoretically meaningful. The purpose of this Appendix, thus, has been to demonstrate that the paradigm proposed in Chapter Three can be used to theoretically order a large number of studies. In addition, this discussion has demonstrated that the present study has been designed and executed in light of a comprehensive knowledge of the relevant literature.

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<sup>16</sup>Yasumasa Kuroda, "Correlates of the Attitude Toward Peace," Background, 8 (1964), pp. 205-214; Snell Putney and Russell Middleton, "Some Factors Associated with Student Acceptance or Rejection of War," American Sociological Review, 27 (1962), pp. 655-677.



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