

This is to certify that the
thesis entitled

ORBITS OF OPINION: THE ROLE OF AGE IN THE
ENVIRONMENTAL MOVEMENT'S ATTENTIVE PUBLIC,
1968-1972
presented by

Kenneth Elmer Hornback

has been accepted towards fulfillment
of the requirements for

Ph.D. degree in Sociology

Major professor

Date May 17, 1974

K-147
291
R142
38
R156
R

K-292

P
C43
APR 17 '86
APR 20 '86
156

MAY 30 '86
JUN 19 '86
85168

176 JUL 1 '86 179

APR 25
JUN 21

NOV 12 2002

0115 15

0312 15

The
1970 is a
cent and a

The
people who,
be sympathetic
ence may be
growth and
tion, or

A
indicative
ture is a
social pro-
the individ-
eses are pro-
diffusion, or

The
tation of

ABSTRACT

ORBITS OF OPINION: THE ROLE OF AGE IN THE ENVIRONMENTAL MOVEMENT'S ATTENTIVE PUBLIC, 1968-1972

By

Kenneth Elmer Hornback

The attentive public of the environmental social movement (1968-1972) is studied with special interest in the distribution of promovement and antimovement bias among various age levels.

The attentive public is defined as that pool of interested people who, although not all active movement organization members, may be sympathesizers, discussants, or contributors whose aggregate influence may be seen as an effective force in the determination of movement growth and decline by virtue of their influence on the media, body politic, or on the movement organizations themselves.

A review of "generations," aging, and youth culture literature indicates that low levels of commitment to the existing social structure is a common theme frequently used to account for recruitment to social movements. Commitment is seen as variable over the life course of the individual and reciprocally related to change proneness. Hypotheses are generated from a model for age-stratified participation in the diffusion of social innovations over time.

To provide a theoretically relevant context for the interpretation of the data collected, an orbital model of public opinion

stratified

from the data

survey data

for Police

cross-section

1969, 1970,

1971

to the report

problem

to be the

assumed that

members who

port will

downward

the attention

tured by

public

expressed

its own way

ought to be

and a number

orbital

awareness of

First

are reported

for education

12,2023
stratification is developed and used to isolate the attentive public from the diffuse mass of opinion available on environmental issues. Survey data used in this study were originally collected by the Center for Political Studies, Ann Arbor, Michigan. The data are comparable cross-section probability samples of the United States collected in 1968, 1970, and 1972.

Operational indicators of the attentive public include responses to the open-ended question: "What do you think is the nation's greatest problem?" Those who define environment-related problems are considered to be the attentive public of the environmental movement. It is assumed that active members of movement organizations as well as non-members who play important indirect roles contributing to movement support will pass the minimal qualifying test of spontaneously mentioning movement-related issues without suggestive solicitation, thus separating the attentive public from the mass of public opinion, as would be captured by structured questions. An antimovement element of the attentive public is measured by a "pollution scale" item, one dimension of which expresses the idea that "industry ought to be allowed to handle pollution its own way" in contrast to the common normative belief that "industry ought to be forced to stop polluting." Validity checks are discussed and a high degree of consistency was found between indicators. The orbital model's utility to characterize the stratification of public awareness of environmental problems is discussed.

Findings with respect to age stratification of environmental bias are reported in tabular and graphic form (1968-1972). Controls are made for education and income. A number of exogenous variables are also

examined.

that are d-

1.

developed t

tial refu-

2.

lie in 14"

3.

public in 1

4.

in a crash,

is no evide

consequence

5.

in 1970 were

1970 they r

but still r

6.

in 1970 were

attachment.

these variou

ceded.

7.

were age and

age and 1970

activation of

examined. The following generalizations are inferences and conclusions that are derived from this study:

1. The public support base of the environmental movement developed between 1968 and 1970, peaked in 1970, and underwent substantial reduction in size by 1972.

2. Promovement bias was reflected by 16.6 percent of the public in 1970, decreasing to 9.8 percent in 1972.

3. Antimovement bias was reflected by 13.0 percent of the public in 1970, slightly decreasing to 12.3 percent in 1972.

4. Antimovement bias was present throughout the period studied in a nearly equal proportion to promovement bias, even in 1970--there is no evidence that this was a movement drawing widespread national consensus at any time.

5. The characteristics of people reflecting promovement bias in 1970 were youth, high income, and high levels of education. In 1972 they regressed toward the national averages for these variables but still remained younger, richer, and better educated.

6. The characteristics of people reflecting antimovement bias in 1970 were older age, low income, and low levels of educational attainment. In 1972 they regressed toward the national averages for these variables but still remained older, poorer, and less well educated.

7. The major distinguishing features of movement bias in 1970 were age and education. By 1972 these distinguishing features became age and income. Promovement bias may be seen as an artifact of the activation of the young and educated in 1970, the educated being those

with his-
however, and
ing from the
of the mid-
A.
organization
during the
role during
The
public of
Exercises
concerns
ranges of
related
with re-
theory, a
of the

with higher income as well. Antimovement bias became dominant in 1972, however, and may be regarded as essentially an economic reaction resulting from the crystallization of threats to life style and occupations of the middle and lower classes.

8. At least inferential data suggest that formal voluntary organizations played major roles in the changes of the attentive public during the growth period (1968-1970) and continued to play an important role during the period of declining interest (1970-1972).

The rise and fall effect found to characterize the attentive public of the movement is attributed to the stratification of change proneness (widespread recruitment to and abandonment of the movement concerns among the youth) and the numerical size of the younger age ranges of the population. The methods and findings of this study are related to other descriptive data (public opinion polls) and discussed with respect to social policy implications. As a contribution to social theory, a model of reform and reaction processes in the transformation of the support base of reform movements is discussed.

ORBITS OF OPINION: THE ROLE OF AGE IN THE ENVIRONMENTAL
MOVEMENT'S ATTENTIVE PUBLIC, 1968-1972

By

Kenneth Elmer Hornback

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Sociology

1974

© Copyright by
KENNETH ELMER HORNBACH

1974

At
problem, *
and analy
puter pr
my occas
and typ
master
all the
time to
of my di
John Bull
especially
my hand
Michigan
Marshall,
and I
start to
and a low
if I were
on any of
an sure I w

ACKNOWLEDGMENTS

At various points in the process of solving this dissertation problem, the following persons have played key roles: The preparation and analysis of National Election Study data was hastened by the computer programming of Al Kornow, who also reflected great tolerance for my occasionally absent-minded recollection of valuable numbers. Editing and typing of the final manuscript was deftly performed by Sue Cooley, master organizer. Graphs were drawn by Cathy Hornback, who also caught all the psychological flack Ph.D. candidates are prone to throw off from time to time. Guidance in the development of my studies and execution of my dissertation problem was handled by members of my committee, John Gullahorn, James McKee, and Jim Zuiches. Professor Zuiches is to be especially recognized for his pliant ear (now cauliflowered by abuse at my hands). Financial support has generously been accounted for by the Michigan State University Agricultural Experiment Station.

I shall never fully fathom nor forget the role played by Denton E. Morrison, my committee chairman, over the last four years of our comradeship and research fellowship. Without behaving in the fashion of the stern taskmaster, he has displayed a high-quality professional role model and a level of excellent standards to which, it was clear, I must aspire if I were ever to gain his endorsement on my work. Had he passed approval on any of the other dissertation problems we exchanged over the years, I am sure I would still be floundering in graduate student status. He has

a keen eye
sible to ob
standards
stage, at
of develop
extent to
mine the
performance
Not
entirely
or origin

a keen eye for quality and would not settle for anything vague or impossible to execute in a definitive manner. Whether I have fully met his standards remains to be seen. The execution of the problem to this stage, at any rate, meets his minimal standards. There remain problems of development and application to theory and methods in this work. The extent to which I can work these out in later publications will determine the extent to which I fully meet the expectations of professional performance that have been set by my mentor.

Needless to say, whatever shortcomings persist in this work are entirely of my own making and cannot be attributed by sins of commission or omission to anyone mentioned above.

1

TABLE OF CONTENTS

	Page
LIST OF TABLES	vi
LIST OF FIGURES	ix
LIST OF ABBREVIATIONS	xi
Chapter	
I. INTRODUCTION	2
II. THEORY	10
Social Movement Theory--Establishing a Theoretically Relevant Operationalization	11
Age and the Generations Theory of Social Movement Participation	30
Mannheim on Generations	31
Heberle on Generations	35
To Change or Not to Change--The Politics of Age	39
Social Integration and Collective Behavior	48
Age and Social Commitment	50
Theory--Scope of Application	60
III. HYPOTHESES	65
IV. METHODOLOGY	84
Data	84
Operationalization	86
Dependent Variables	86
Independent Variables	90
Analysis	91
V. FINDINGS	94
The Social Context of the Environmental Movement as Indicated by Related Research	94
The Pattern of Environmental Bias Over Time	103

1

Chapter	Page
Age and Environmental Bias	115
Exceptions to the Expected Findings	143
Age, Environmental Bias, and Related Variables	149
Education	149
Occupation and Income	161
Multiple Controls	171
Covariates of Environmental Bias	178
VI. SUMMARY AND CONCLUSIONS	187
Summary of Findings	187
Theoretical Contributions	195
Reform and Risk	197
Threat and Social Conflict	200
The Reform and Reaction Cycle	204
Next Steps	209
Professional Articles	209
Continued Research	210
APPENDICES	212
A. ARRIVING AT THE PROBLEM	213
B. GALLUP OPINION INDEX AND RELATED INDICATORS OF ENVIRONMENTAL OPINION TRANSFORMATIONS	218
C. QUESTION FORMATS AND CODES FOR DATA USED IN THIS STUDY	232
D. HISTOGRAMS OF AGE FREQUENCY IN TOTAL SAMPLE AND EMIP SUBSAMPLE	239
E. AGE-BY-AGE PERCENTAGES FOR 1970 NES and 1970 CENSUS	242
F. THE COMPLEXITIES OF AGE AS A VARIABLE	246
BIBLIOGRAPHY	251

1

LIST OF TABLES

Table	Page
1. National Opinion of Seriousness of Air and Water Pollution for Selected Dates	96
2. National Opinion of Presence of Air Pollution for Selected Dates	97
3. National Willingness to Pay Air Pollution Control Tax for Selected Dates	98
4. National Concern About Environmental Problems Related to Demographic and Socio-Economic Characteristics	99
5. National Concern for Air and Water Pollution by Respondents' Demographic and Socio-Economic Characteristics for Selected Dates	101
6. Approximate Size of the Attentive Public of the Environmental Movement Indicated by the Proportion of People Naming EMIP	105
7. Specific Dimensions of Environmental Problems Among People Who Mention EMIP	107
8. Promovement Subsample and Total Sample Pollution Scale Response Distributions: 1970-1972	109
9. Promovement Bias and Age in 1968	116
10. Age Characteristics of People Mentioning Environment- Related Codes in Wisconsin and in the Nation During 1968	118
11. Rank Order of Major National Issues According to Importance to Respondent, 1970	120
12. Age Characteristics of People Mentioning Environment- Related Codes in Wisconsin and in the Nation During 1970	122

Table

13. Fr

14. Fr

15. Fr

16. Fr

17. In

18. Ar

19. Env

20. Fr

21. Exp

22. Env

23. Env

24. Ar

25. Fr

26. Env

27. Env

28. Fr

29. Ar

30. Env

31. Env

Var

Table	Page
13. Environment and Inflation as Most Important Problems (1970)	123
14. Promovement Bias by Age: 1968-1972	125
15. Promovement Bias by Age (Ten-Year Intervals): 1968-1972	130
16. Promovement Bias by Age (Five-Year Intervals): 1968-1972	131
17. Interyear Percentage Differences in Promovement Indicator Levels and Age	134
18. Antimovement Bias by Age (Five-Year Intervals): 1970-1972	137
19. Environmental Bias by Age (Five-Year Intervals): 1970-1972	141
20. Formal Voluntary Organization Membership Among Promovement Subsample and the Sample by Age (1972) . . .	146
21. Expected Occupational Impact of Environmental Reform Legislation by Age (1970)	148
22. Responses to the Pollution Scale by Age (1970)	150
23. Environmental Bias by Education: 1970-1972	153
24. Antimovement Bias by Age and Education: 1970-1972	155
25. Promovement Bias by Age and Education: 1970-1972	156
26. Environmental Bias by Occupational Impact (1970)	163
27. Environmental Bias by Income: 1970-1972	166
28. Promovement Bias by Age and Income: 1970-1972	170
29. Antimovement Bias by Age and Income: 1970-1972	172
30. Environmental Bias and Age, Education, and Income (1970)	176
31. Environmental Bias by Year for Selected Variables	179

Table	Page
32. Environmental Bias by Age, Controlling for Party Identification (1970)	181
33. Environmental Bias by Age, Controlling for Party Identification (1972)	182
34. Political Party Preference	184
B1. Comparison of MIP by Gallup and NES, Late 1970	223
B2. Number of People Mentioning EMIP Initially, as the Single Most Important Problem, and Both Initially and as the Single MIP	225

LIST OF FIGURES

Figure	Page
1. An Orbital Model of Social Movement Location Within the Public	24
2. Hypothetical Distributions of Public Interest Orbitals Before and During Movement Activity	26
3. The Bell-Shaped Frequency Curve and the S-Shaped Cumulative Curve for an Adopter Distribution	67
4. Model Curve for the Dependence of Change Proneness on Age	68
5. Curves Reflecting the Changing Age-By-Age Change Proneness at Different Stages in the Diffusion Process .	69
6. Hypothetical Age Differentials in Social Movement Recruitment Rates Over Time, Assuming Equal Initial Starting Points	71
7. Hypothetical Age Differentials in Social Movement Recruitment Rates Over Time, Assuming Stratified Initial Starting Points	73
8. Percentage of Respondents Identifying Air and Water Pollution as One of Two Major Problems Facing Wisconsin	75
9. Distribution of Public Interest in Environment According to the Orbital Model, 1970	111
10. Distribution of Public Interest in Environment According to the Orbital Model, 1972	112
11. Distribution of Promovement Bias Over Time for Various Age Groups of Ten-Year Intervals	127
12. Distribution of Promovement Bias Over Time for Various Age Groups of Five-Year Intervals	128
13. Distribution of Antimovement Bias Over Time for Various Age Groups	138

Figure	Page
14. Environmental Bias by Age and Education, 1970	159
15. Environmental Bias by Age and Education, 1972	160
16. Environmental Bias by Age and Income, 1970	173
17. Environmental Bias by Age and Income, 1972	174
18. Proportion Naming Environment MIP by Age and Year	188
19. Paths of Pro- and Antimovement Bias According to Benefit/Cost Ratio of Change Impact on Different Groups	207
B1. Environment-Ecology Most Important Problem	221
B2. Environment MIP as Indicated by Selected Studies, 1968-1972	227
B3. Development of Environmental Interest by Selected Indicators of the Printed Media Content Over Time	228
B4. Growth Rates (in Absolute Numbers of Members) of Four Conservation Organizations--The Sierra Club, Wilderness Society, Audubon Society, and Save the Redwoods League-- 1950-1969	230
B5. Growth Rates (in Frequency) of Articles Concerning Environmental Issues in Selected Periodicals and Number of Periodicals (U.S. Only) Containing Environmental Articles--1953 to 1969	231
D1. Histogram of EMIP Subsample and Total Sample Distributed by Age, 1970.	240
D2. Histogram of EMIP Subsample and Total Sample Distributed by Age, 1972	241
F1. Differentiation of Age Variables Over Time	248

LIST OF ABBREVIATIONS

N = number

MIP = "most important problem"

EMIP = "environment as the most important problem"

NES = National Election Studies, products of the Center for
Political Studies

FLC = family life cycle

FVO = formal voluntary organization

PS = pollution scale

When people make statements about environmental "quality," they invoke certain values, the attainment of which is thought to be affected by salient features of the environment. Such values may involve or be assigned to matters of physical or mental health, personal worth or dignity, family stability, social order, survival of the species, physical comfort, beauty, and recreation. They may be expressed indirectly in statements about the quality of life.

Research is needed to discover how different values about such matters are manifested by and ordered among different segments of the population. How do they vary with income, age, urbanicity, ethnicity, and race, for example? How do people vary in their perception of, and commitment to, future values regarding the environment? Answers to such questions would be useful not only in designing environmental programs best suited to different parts of the population but also for anticipating reactions to such programs.

National Academy of Sciences. Environmental Quality: Strategies for Research. Washington, D.C., 1973 (p. 37).

CHAPTER I

INTRODUCTION

Certain features of the social movement to save the environment make it an ideal focus of study for social scientists interested in collective behavior. Of central importance is the fact that it flourished and, at least in substantial measure, declined in the relatively narrow time period between its major precipitant, the Santa Barbara oil spill (January, 1969), and the relatively sedate second and third Earth Days of 1971 and 1972. Moreover, the movement reflected changes over this time span as it underwent a transformation from a movement of national consensus to one within which lines of cleavage and conflict were precise and intense (Morrison, Hornback, and Warner, 1972; Morrison, 1973). In addition, the movement received widespread coverage from communications media as well as from various public opinion polling and other research organizations. It was open to study without covert research methods, since its reform theme was largely within the normative framework of the dominant culture; secrecy was not a necessary cloak of movement organizations or members. Finally, the concrete, recent emergence of movement-related issues such as the "energy crisis" suggests that this movement warrants special attention, since its periodic revitalization (and the emergence of counter movements) can be anticipated.

Despite the availability of much descriptive data on the environmental movement and its participants, this research does not shed precise light on theoretical questions. Partly, this is due to methodological problems with the data available; partly it is due to the fact that simple description rather than theoretically aimed analysis characterizes the research reports.

The polls suggest that the overwhelming majority of the public perceive pollution to be a problem, in most cases a serious one (reviewed by Erskine, 1972). Yet there is reason to believe that impressions may be more misleading than they are informative.

While the polls have used a variety of techniques, in most cases they have used highly structured questions which produce normative bias or social desirability response sets (Backstrom and Hursh, 1963:174). A classic example is the National Wildlife Federation question (reported in Munton and Brady, 1970:55): "You may have heard or read claims that our national surroundings are being spoiled by air pollution, water pollution, soil erosion, destruction of wildlife, and so forth. How concerned are you about this?" In a study of the effects of open and closed questions about environmental concern, Rita Simon found a high level of concern was elicited by structured question formats, but the open-ended format indicated only 13 percent of the respondents felt environment was a problem of first-order importance (Simon, 1971:99).

Interpreting the data produced by structured questions about environmental sensitivities is complicated and possibly even empirically meaningless. Simon found that while 95 percent of the respondents

said water pollution is a serious problem, half of them also said the President is putting too high a priority on the problem. What could be the meaning of a poll that says 60 percent of American business executives feel pollution is a high-priority problem but seven out of ten of those same executives say it does not affect them or their families' health (Fortune, 1970)? Typically, environmental reforms are seen as abstractions, normative goods to which everyone subscribes. It is difficult to understand what generalizations can be drawn from evidence that says 95 percent of the Americans interviewed approve of a normative good.¹

The task of summarizing what is known about people who identify with environmental problems is also complex. Sigler and Langowski tried to do it systematically, but failed to receive necessary cooperation from the polling agencies responsible for the majority of nationwide studies (1971:10). Munton and Brady (1970) were more successful; however, their product suffers from limitations resulting from dealing with published statistics rather than raw data. Every time a different defining characteristic is examined, a different distribution of demographic variables results. It makes a great deal of difference whether a description of the environmentally sensitive public results from responses to "perception of effects of air and water pollution" (1970:11) or from "attention and support received by government programs on improvement of the natural environment" (1970:37). But what the difference is remains an open question.

¹Converse has provided an excellent critique of the data collected by commercial agencies. See Philip E. Converse (1966).

The picture that can be pieced together must be drawn from studies conducted at diverse times. These studies represent a wide variety of methodological, question, and sampling strategies. Question formats are seldom comparable among pollsters, and are rarely used more than once in the same format. The following questions have been used by Harris and Associates and illustrate the difficulty of interpreting what the findings may mean beyond their opinion content (cited by Erskine, 1972^a):

As an American, have you often, sometimes, or hardly ever felt bad because of the pollution of rivers and streams (1965)?

As far as the rivers, lakes, and streams around here go, do you feel that a lot of them, some but not a lot, only a few, or almost none are polluted (1966)?

From what you know or have heard, do you think there is a lot of air pollution around here, some but not a lot, only a little, or hardly any (1967; 1970)?

The completeness and quality of reporting data vary considerably and reflect major problems of coding nonstandardization (see Appendix B for examples). Those who do indicate concern about the environment tend to be so numerous that it is statistically probable they would resemble the criteria upon which the sample itself was drawn (representativeness). At the same time, those few who reflect less concern or fail to respond to items are also the subpopulation among whom the survey technique would seem less sensitive--older, less educated, lower income, and minority groups. Because the questions for which data have been collected tend to be such gross indicators of public sentiment, it seems inappropriate to conclude anything but gross generalizations about environmental concern; i.e., it is greater than what it used to be.

At

people who

matic. At

and more

obviously

around the

participate

found that

headquarters

apparent

found in

organization

ships. The

able variable

hundred

gory of

Center for

survey, M

for environ-

the 21-34

Gallup nation

people "don't

Brady, 1970

The

acteristics

linked to the

Any firm generalizations regarding the characteristics of people who are sympathetic to environmental issues remain problematic. Age, in particular--the focus of this study--warrants further and more specific examination. While the environmental movement obviously received high youth participation at its most visible peak around the initial Earth Day, 1970, it is just as apparent that youth participation has drastically declined since that time. (Pittman [1974] found that over 62 percent of the correspondents with the national headquarters of the 1970 "teach-in" were under 29 years old.) Equally apparent is the fact that much of the strength of the movement is found in both traditional civic and revitalized naturalist-conservationist organizations, which are not generally characterized by young memberships. These alternative considerations are reflected in the considerable variability in the available data. A study of participants in two hundred environmental voluntary organizations indicated a modal category of people aged 36-45 (a 1972 survey conducted by the National Center for Voluntary Action, 1973). In his review of a 1969 Gallup survey, McEvoy saw "little substantial difference in level of concern" for environmental problems, except for a nine-point difference between the 21-34 age group and people over 50 (McEvoy, 1972). Another 1969 Gallup national survey indicated no differences at all in ages of people "deeply" concerned about environmental problems (cf. Munton and Brady, 1970:17).

The difficulty with all the available findings about the characteristics of environmental movement participants is that they are linked to the movement at specific points in time and change very

little in their characterization over time. Yet the historical and sociological treatments of social movements amply document the changing recruitment patterns of social movements as they grow, mature, and decline. Why do the available data fail to show differences other than those that can be attributed to variations in the wide variety of styles of data collection and presentation? Obviously, the published data cannot be manipulated to answer this question. This study will resolve, partially, the practical problem of developing a reliable indicator of environmental interest over time, as well as address some key theoretical issues in the theory of social movements.

The problem of characterizing the changing composition of the environmental movement focuses initially on the age variable. The problem is developed by the following steps. Our concern with theory discusses two problems: (1) the specification of a concept of social movements that allows the introduction of survey research data as an indicator, and (2) the clarification of the role age plays in social movement involvement (Chapter II). Hypotheses are then derived from an application of the theoretical age differentiation in change proneness to the pattern of the diffusion of social innovations (Chapter III). After treating the technical matter of methods of data collection, sampling technique, etc. (Chapter IV), the findings are presented and discussed in relation to the hypotheses (Chapter V). Finally, theoretical questions are again taken up at a general level in considering the degrees of support and character of modifications suggested by the findings (Chapter VI). This final chapter closes

with a brief discussion of the application of the findings to theoretical and empirical issues of professional interest and the possibilities for continued research on this subject area.

The relative absence of studies of social movements by sociologists is particularly distressing because of the frequency of such movements in current society. The neglect of such phenomena could be better understood in periods of social stability than at present, when there are many such movements to study. The current neglect leads one to suspect that the whole discipline of sociology (and not just certain theoretical positions, such as Parsons' and functional analysis, which have often been described as oriented to equilibrium) has evolved toward the study of social statics, and becomes impotent in the face of change. Whether this is the case, or whether it is merely that the study of social change, social movements, conflict, collective behavior, and other transient states is simply more difficult, the end result is the same. These are the underdeveloped areas of social research. They are not only backward at present; they are not catching up.

James S. Coleman. "The Methods of Sociology." A Design for Sociology: Scope, Objectives, and Methods. Edited by Robert Bierstedt. Philadelphia: The American Academy of Political and Social Science, 1969, p. 112.

As
all of some
movement for
ously form
ecus progr
anarcho-
ronmental
sion of id
groups and
organization
movement
ment organi
tional or
heart of the
thetic to
culture; po
formation a
of knowledge
large. But
interest in
the issues

CHAPTER II

THEORY

An examination of a social movement can be directed at any or all of several levels of activity. Frequently, the existence of a social movement first comes to our attention through the activities of spontaneously forming, short-lived, "grass roots" organizations with heterogeneous programs and membership constituencies (ranging from revolutionary anarcho-ecology groups to bottle recycling clubs, in the case of the environmental movement). The "movement" of a social movement is the diffusion of ideas and world views (through individuals) to other unconventional groups and conventional special or general interest organizations with organizational histories and memberships which antedate the "birth" of the movement in its popular form. Similarly, there are "institutional movement organizations" defined as any institutional organization (e.g. educational or governmental) whose day-to-day activities are logically at the heart of the scope of interest of an emerging social movement and sympathetic to it (e.g. schools and departments of natural resources and agriculture; see Morrison, Hornback, and Warner, 1972). Concomitant with the formation and/or mobilization of movement organizations is the diffusion of knowledge and/or interest in the movement issue among the public at large. Both in the short and the long run, the stimulation of public interest in the movement issues and a modicum of public endorsement for the issues greatly facilitate a reform movement's efforts.

its publi

were driv

was to b

M

interest

ist or ur

public exp

However, -

dation by

erence the

the stimu

izations.

in a grow

subset of -

formulate a

1-
ety of soci
erature on
and change
structural
psychologi
find prod
estranger
ships to w
Hoffer (19
and espec

The environmental movement was particularly oriented toward its public impact since, in many respects, profound collective changes were deemed necessary if the cataclysmic vision of world destruction was to be avoided.

Most collective behavior and social movement literature takes interest in the spectacular hard-core organizations, the radical activist or group, or the confrontation event. Only infrequently is the public support base defined as a subject of scrutiny in its own right. However, the ebb and flow of popular sentiment is an important foundation upon which movement organizations are built, the frame of reference through which political decision makers understand events, and the stimulus for new program development in private and public organizations.

Social Movement Theory--Establishing a Theoretically Relevant Operationalization

Social movements involve periods of heightened public interest in a given issue stimulated by the formation of collectivities of some subset of that public to propagate, discuss, and debate the issue or formulate action in regard to the issue.¹ The issue is most likely to

¹The social movement topic is a rubric for listing a wide variety of social phenomena which have variously been treated by the literature on collective behavior, diffusion of innovations, social conflict and change, and political sociology, among others. This perspective is structural and process oriented, and may be distinguished from those social psychological perspectives that are more concerned with a frame of mind produced by man's alienation, declassed position, or self-estrangement resulting from a disruption of the society of relationships to which man is bound. For a review of these perspectives see Hoffer (1958), Kornhauser (1959), Fromm (1960), McLaughlin (1969), and especially Lystad (1972).

be one with

issues to

issue is

recognize

would be

at least to

ments'--

through

of com

the study

of the

tronal

Al

and while

social

text and

key factor

rists have

of associat

social move

association

17

open society

24

what is be

do emerge

consciously

also operat

tory of def

be one without precedent, since heightened interest in conventional issues tends to be absorbed by existing social groups. But whether the issue is totally "new" or not, should existing social groups fail to recognize or fail to be able to cope with an emerging concern, there would be theoretical grounds for the formation of new groups. Therefore, at least two conditions are necessary for the formation of social movements¹--the transformation from individual to shared perspectives and, through organizing, the creation of new role relationships and patterns of communication.² As a result, the study of social movements involves the study of public opinion formation and transformation and the study of the development of new and activation of old voluntary and institutional associations, their growth and transformation.

Although the interdependent roles of public opinion formation and mobilization of associational activity are basic to the study of social movements, the attention paid to these phenomena is intermittent and not systematic, touching on one but rarely on both of these key factors. Problems typically arise from the simplifications theorists make. Turner and Killian failed to make explicit the importance of associations because of their view that "the longer the life of a social movement . . . the more it takes on the characteristics of an association rather than a collectivity" (1957:307). This view leads

¹The present focus is on social reform movements in modern, open societies.

²Most brief definitions of social movements fail to clarify what is being discussed. Perspectives similar to the one stated here do emerge after pages of discussion, although rarely is it stated concisely (cf. Blumer's general discussion of social movements [1946]; also Oberschall, 1973). Rush and Denisoff (1971) provided an inventory of definitions of social movements (p. 180).

one to 4
the anti-
likely to
debate,
products
clarify
and Mill
"if some
issue at
with a
and in
(1957)
station
some
have an
social
a large
work a
local
of the
to the
the separ
ments. T
lio opini
of concer

one to assume that associations grow out of social movements. Actually, the argument that social movements grow out of associations is more likely to be the case. The issue, however, is a "chicken or egg" debate, the answer to which is that associations are both causes and products of social movements. A third process must be introduced to clarify this matter--the public opinion formation process. Turner and Killian approached an important realization when they noted that "if members of a public who share a common position concerning the issue at hand supplement their informal person-to-person discussion with some organization to promote their convictions more effectively and insure more sustained activity, a social movement is incipient" (1957:307). The missing link is the realization that voluntary associations are ubiquitous in modern society, and it is unimaginable that some issue would capture an element of public attention that would not have an "interest group" sympathetic to the cause somewhere within that social structure. The point is, a population is already organized into a large number of microsocieties (churches, civic groups, hobby clubs, work associations, etc.), one or more of which might act to catalyze local interest in an emergent issue. Killian, at least, was aware of the importance of associations (1964:431), but gave scant attention to the subject.

Another problem that arises from analytical simplifications is the separation of the subject matter of public opinion and social movements. Turner and Killian (1972) failed to highlight the role of public opinion fluctuations in social movements by separating the topics of concern into different chapters, thus avoiding the problems of

making

mention

have got

suggest

after he

which is

are dynam

play other

most unf

of the pu

"The large

tudes and

sympathies

anticipate f

a function

with issue

influence

as position

public ser

to the rev

needed res

perspective

spectives

public at

making clear conceptual distinctions. Others either have failed to mention the subject (McLaughlin, 1969; Rush and Denisoff, 1971) or have given it peripheral attention (Smelser, 1962). Indeed, one author suggested it is more important to know what happens to a participant after he joins a movement than to know the antecedent conditions from which he was recruited (Killian, 1964:445). Since social movements are dynamic events in which public opinion and associational activity play changing (and interchanging) roles, such a post hoc approach is most unfortunate.

Zald and Ash (1966) expressed in concise terms the importance of the public sentiment resource to social movement organizations: "The larger society affects the movement organization because the attitudes and norms of the larger society affect the readiness of movement sympathizers to become members, and the readiness of members to participate fully" (1966:330). The ebb and flow of public sentiment is a function of three things: (1) the number of people identifying with issues defined by the movement, (2) the potential for social influence of that support base, and (3) the affect of public opinion as positive, negative, or neutral toward the issues. Changes in the public sensitivity to a movement issue influence the power attributed to the movement and subsequently the movement's ability to mobilize needed resources. The probability of an individual adopting a defined perspective is a function of the size of the set of convergent perspectives available and the discussion of these perspectives by the public at large.

ally

are

(Heber)

the st

organi

tions

enough

undergo

concern

Heber

neglect

that are

associati

movement

theory

est group

elementary

social

"is repre

those who

trial which

large migra

characteriz

disorganiza

At least one classic text on social movements focused specifically on "social collectives" as distinguished from social trends, which are the results of numerous identical but disparate social acts (Heberle, 1951:8-9). "Heberle places at the center of his analysis the study of social movements as groups in the process of becoming organized" (Killian, 1964:429). Yet Heberle's treatment of associations was limited, since he focused on large groups "consisting of enough individuals to be able to endure a change in membership without undergoing a change in quality" (1951:269). Unfortunately, the implied concern with movement dynamics is not realized by Heberle's effort. Heberle's model of a social movement group was the political party--neglecting the plethora of smaller formal voluntary organizations that are constantly present in modern social life (business, religious associations, etc.), or that may spring up with the development of a movement.

Another early statement of the province of collective behavior theory clearly established the centrality of public opinion and interest groups in social and mass movements (Blumer, 1946). Two of Blumer's elementary collective groupings are important in the formation of social movements--the mass and the public. "The mass," said Blumer, "is represented by people who participate in mass behavior such as those who share in a land boom, those who are interested in a murder trial which is reported in the press, or those who participate in some large migration" (1946:185-186). The mass reflects the following characteristics: social heterogeneity, anonymity, dissociation, and disorganization. The mass is a collectivity giving attention to a

"wider"

rules, R

stipula

alienated

interest

and order

that of "

and feeling

1971. A -

on the part

Excerpt, .

The direction

ture of ord

The

grouping of

judgments

1971. The

"following,"

the 'public'

S. v.

remain untr

The mass, f

the crowd of

not specific

topic to day

expectation

"wider universe, toward areas which are not defined or covered by rules, regulations, or expectations" (1946:186). Blumer went on to stipulate that "the mass can be viewed as constituted by detached and alienated individuals who face objects or areas of life which are interesting, but which are also puzzling and not easy to understand and order" (1946:186). The activity pattern manifested in the mass is that of "selections which are made in response to the vague impulses and feelings which are awakened by the object of mass interest" (1946:187). A mass movement results from the convergence of discrete actions on the same selections (or social choices), e.g. purchases of The Exorcist, a "best seller," or attendance at "The Exorcist," the movie. The distinction between the mass and the social movement is the feature of organization present in the latter.

The public, in contrast to the mass, refers to a spontaneous grouping of people who are confronted by an issue, are split in their judgments of the issue, and engage in discussion over the issue (1946:189). The public, therefore, is not the entire populace nor is it the "following," which is defined only by example, "as in the instance of the 'public' of a motion picture star" (1946:189).

Several ambiguities characterize Blumer's discussion and remain unresolved by later writers interested in collective behavior. The mass, for example, is seen to be convertible, variously, into the crowd or into the public. The means of conversion, however, are not specified. Must the mass be alienated? Is it possible for a topic to capture human attention and that those humans might have no expectations or myths to lend structure to the topic? Blumer spoke

of membership in the mass and public, yet what does this mean in the context of a nonorganized collectivity? Moreover, "the existence of an issue means that the group [the public] has to act" (1946:189) but why, how? Blumer did not explain these apparent questions. He clearly had more in mind than his definitions encompassed.

Yet Blumer captured the essential relationship between the public at large and that element of the population involved in any given social movement. "The public, ordinarily, is made up of interest groups and [is] a more detached and disinterested spectator-like body. . . . The interest groups endeavor to shape and set the opinions of these relatively disinterested people" (1946:192). In Blumer's discussion of social movements, however, little importance at all is attributed to public opinion and interest groups, as he adopted an extremely global conception of the phenomena. Perhaps Blumer assumed the connection between his discussion of elementary collective groupings and social movements was obvious. Nevertheless, the link escapes theorists writing from the sociological perspective for the following 25 years.

In a later article, Blumer (1948) took public opinion pollsters to task for their own implicit conception that public opinion is what public opinion pollsters poll (p. 543). In the course of his general critique he made the following point, which has significant ramifications for the problem of conceptualizing the relationship between public opinion and social movements. Referring to the success of polling in predicting election outcomes, Blumer noted that "the casting of ballots is distinctly an action of separate individuals wherein a ballot cast by one individual has exactly the same weight as a ballot

cast by

that is

mass

People

the hand

they feel

voting

of the

is great

appeals

measure

this

ments, P.

are we

on to

public

viduals

tiated in

... and

public is

social

lic becom

We

Members of

ness of the

cast by another individual" (1948:547). Voting is a social activity that is widely and normatively supported. Institutions such as the mass media and political organizations "drive people out to vote." People may go out to vote even when they have little knowledge of the candidates and little opinion about the outcome, simply because they feel they ought to vote. The point is that the dependent variable (voting) may be determined one way or the other by a very low threshold of the independent variable (opinion). This is possible because there is great influence from an intervening variable (norms and media appeals to vote). A survey attitude question may be expected to measure the underlying current of favor and predict the outcome of this mass effect.

The matter is entirely different in the case of social movements, because we are not concerned with the bulk of the people nor are we concerned about institutionalized social action. Blumer went on to make the point from a slightly different perspective: "Effective public opinion is not an action of a population of disparate individuals . . . but is a function of a structured society, differentiated into a network of different types of groups and individuals . . . and occupying different strategic positions" (1948:547). The public is stratified into several elements. The problem of studying social movements is to understand how elements of the stratified public become involved in varying degrees with the issue at hand.

We are now dealing with the following concept of society: Members of the society are characterized by varying degrees of awareness of the stock of ideas available in the society. When one of these

ideas assumes importance through historical, political, or technological development, the attention given to the idea is differentially reflected according to the stratification of awareness in the population. The process of transforming public awareness is the problem to be solved.

We may begin with a general dichotomy of public attention that was offered by Rosenau, who characterized the general public as being composed of two distinguishable populations--the "mass public" and the "attentive public."¹ Of the mass public, Rosenau suggested that "their response . . . is less one of intellect and more one of emotion; less one of opinion and more one of mood, of generalized, superficial, and undisciplined feelings which easily fluctuate from one extreme to another. . ." (1961:35). The attentive public, on the other hand, comes into being "because members of the mass public have a variety of political, economic, and social affiliations which can form the basis of temporary emergence from passivity" (p. 38). Such attention groups

acquire structure as an aroused group whenever an issue arises that directly affects their common interests. . . . Their entrance into public debate is then sudden and impulsive, and confined exclusively to the single issue which provoked them. . . . Once the issue has subsided, these attention groups disband . . . returning to the status of unorganized and passive segments of the mass publics (p. 37).

¹Earlier attempts to conceptualize public opinion as changing and composed of different elements which vary in degrees of involvement were offered by Lippmann (1925), Clark (1933), and Foote and Hart (1953). A noteworthy attempt to build propositions touching upon the public, public opinion, and general interest group activity as part of a theory of political power was provided by Lasswell and Kaplan (1950). Rosenau's work is the most recent and concise statement of the key issue.

Implied

the law

covaria

the nat

standing

the song

ing the

location

important

istic elab

suited to

movements

For

movements

(although

[1966]);

lation and

activated

but it is

tions, loca

the larger

would seem

issue would

because of

the popular

Implicit in this distinction is the hypothesis that affiliations define the awareness of the stock of ideas. This is a statement of the familiar covariance from the sociology of knowledge: Social location specifies the nature of social conception. Although the genetic problem of understanding how social location gives birth to social movements is beyond the scope of the present problem, the epigenetic problem of understanding the life cycle of a movement as it diffuses into different social locations within a population is of concern here. The distinction is important because the genetic problem may be amenable only to relativistic elaboration, while the epigenetic problem is, at present, more suited to generalizations that would be expected to characterize social movements regardless of ideology and location of origin.

The crucial relationship between public opinion and social movements is not the relationship between all opinionated people (although that is not a trivial matter, as Zald and Ash pointed out [1966]); rather, it is the relationship between the activated subpopulation and the movement organizations that develop. Not all of the activated (attentive) public will join social movement organizations, but it is from their ranks that supportive actions such as contributions, letter writing, etc. would be expected to flow. If we turn to the larger opinionated public as a source of analytical study, it would seem that any device to measure the popularity of a movement issue would tend to be unstable over time, or perhaps overendorsed because of the normative bias associated with the issue (depending on the popularity of the movement).

behavior is

pretations

Althou
partic
of corr
a shif
ment of

Converse (1

placed on a

of ideolog

based on "p

of the poli

of the dia

conservative

levels of

sophisticat

The ranc
rate rate
dent p
involv
downward

We

be conceptu

to the aut

Correspond

itively men

ull, and to

movement id

This distinction is not explicitly made in the collective behavior literature, but it is certainly within the spectrum of interpretations that can be derived from such observations as Killian's:

Although the movement may encompass formal associations, many participants may be informally tied to it with varying degrees of commitment and involvement. Moreover, the following may be a shifting collectivity, expanding and contracting with the movement of individual participants in and out (1964:443).

In a discussion of the nature of belief systems in mass publics, Converse (1964) suggested that perceptions of political issues may be placed on a continuum of varying degrees of clarity in the perception of ideological issues. Five "levels of conceptualization" are named, based on "a priori judgements about the breadth of contextual grasp of the political system" (Converse, 1964:215). In the first two levels of the classification fall persons who are conversant with the liberal-conservative continuum--the "ideologues and near-ideologues." Lower levels of conceptualization are intended to reflect less clear-cut, less sophisticated, or less articulate grasps of political distinctions.

The ranking of the levels performed on a priori grounds was corroborated by further analyses, which demonstrated that independent measures of political information, education, and political involvement all showed sharp and monotonic declines as one passed downward through the levels in the order suggested (1964:217).

We would argue that identification with social movements may be conceptualized in a similar fashion, with ideologues corresponding to the active core of social movement organization leaders and members. Corresponding and financial supporters, those who spontaneously and positively mention the movement issues in conversation or with minimal stimuli, and the element of the public that gives verbal endorsement to the movement ideology and programs all represent levels of lower participation

in the SO

might be

large. I

core" this

sample, an

acter of m

over the m

tions for

All

the sentim

tenor of

may be qu

degrees of

1970 was

eral publi

riding for

For

this point

made betw

crete clon

in a contin

vior. The

reinforce

to be dist

to enact or

conceptual

in the social movement in question. Measurement of a social movement might tap any level and make limited inference to "the movement" at large. For some purposes, one would like to know about what the "hard core" thinks. Unfortunately, the hard core is difficult to enumerate, sample, and study. Because of the polycephalous (Gerlach, n.d.) character of many movements, focus on a hard core that has unified control over the movement or pretends to speak for the movement involves limitations for generalizing about the movement in its full societal context.

Although a comprehensive study of a social movement would take the sentiment of the hard core into account, it may also focus on the tenor of sentiment among the public at large, upon which the hard core may be quite dependent. While different movements depend to differing degrees on a public support base, the early environmental movement (1970-1971) was particularly dependent on external financial support and general public cooperation through "participatory ecology"--recycling, riding bicycles and mass transit, voluntary consumption reduction.

Three distinctions are central to the argument presented to this point. First, at the level of mass effects, a distinction may be made between involvement in a social movement and opinion on a concrete electoral issue. The former is an instance of deliberate action in a context in which there is no provision for institutionalized behavior. The latter is an instance of action supported by strong secondary reinforcements and an institutionalized pattern of behavior. They are to be distinguished for the level of motivation that must be activated to enact one action in contrast to the other. Second, at the level of conceptual distinction, public opinion may be divided into the mass

public, who

and the at

issue 1934

ment partic

empirical

these dist

would be in

only the m

the

gested by W

oric of m

might be re

ment. The

or theoret

should not

the "core,"

rest of the

two, the "a

knowledge

movement

the

the

here includ

wider publi

stances of a

defined uni

plained. Of

is character

of a formal

public, which reflects generalized moods relating to the focal issue, and the attentive public, a subset of people more interested in the issue itself.¹ It is from the attentive public subset that social movement participants are logically recruited. Third, at the level of empirical operationalization, it is crucial to use devices that enable these distinctions to be preserved; e.g. structured questionnaire items would be likely to elicit a normative response bias that would define only the mass public. We will return shortly to this third point.

The idea of "orbitals" of involvement was explicitly suggested by Wilson (1973), and has been implicitly suggested in the rhetoric of many students of social movements.² Figure 1 characterizes what might be referred to as an "orbital model" of social movement involvement. The actual number of orbits reflected varies according to empirical or theoretical needs. The diagram is offered as a heuristic device, and should not be taken to task for its geometric limitations. Orbit one, the "core," involves the people who are involved in voluntary movement organizations and institutional movement organizations. Orbit two, the "attentive public," adds people who are sympathetic to and knowledgeable of the movement efforts. Among these are contributors to movement organizations, letter writers, and informal propagandists.

¹Empirical documentation is provided by Rosenau (1961:113).

²Clark (1933) pointed out many of the relevant parts referred to here including a core, a wider following beyond core members, and an even wider public which grows as other groups become impacted by the consequences of activities of the core. However, Clark left the parts he defined uninterpreted and the dynamics of which they are a part unexplained. Clark's effort was impeded by his assumption that "a public is characterized by its spontaneity, diversity of attitude, and lack of a formal action-pattern" (1933:312).

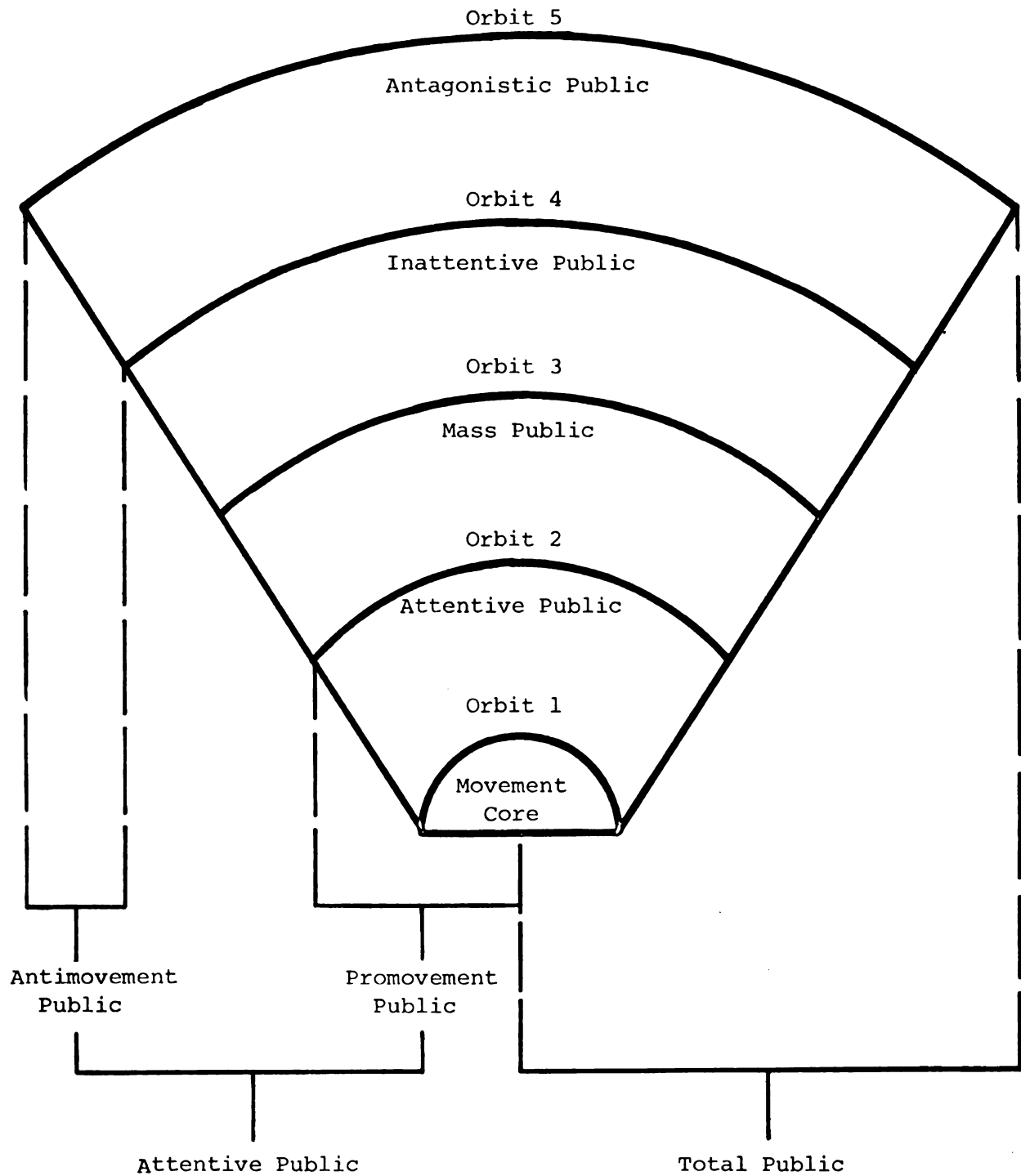


Figure 1.--An orbital model of social movement location within the public.

Orbit three, the "mass public," involves those who are generally sympathetic to the movement program, once you tell them what it is. Since they are not knowledgeable about the movement efforts, their opinions may be fickle, illogical, vague, and fleeting. (No negative connotations should be concluded, since everyone falls into this category concerning certain subjects.) Orbit four, the "inattentive public," would not be interested in the subject matter regardless of the amount of information provided to them. Orbit five, the "antagonistic public," is composed of those people whose interests may be at odds with those of people involved in the core of the movement. In reality, of course, the distinctions between orbits are much less clear cut.

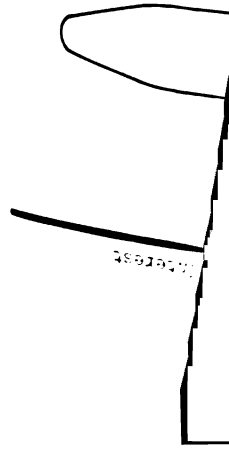
Two points should be emphasized, since they are not perfectly obvious in Figure 1. Operationally, structured questionnaire items would produce data about the mass public inclusive of orbits one through four (because of the influence of normative bias on orbit four), whereas theoretically the mass public involves only orbits one through three. The difference is more important in the study of social movements than in the study of electoral behavior. If the "attentive public" is measured by an unstructured item to avoid the normative bias, it should be kept in mind that additional data must be collected to determine the direction of affect since the unstructured type of question might collect both favorable and unfavorable orientations to the issue under study. That is, the "attentive public" may consist of both favorable and unfavorable orientations to the issue.

Figure 2 shows another aspect of the distinctions made in Figure 1, e.g. their hypothetical frequency distributions. This

During the
Movement



Before the
Movement



Interest

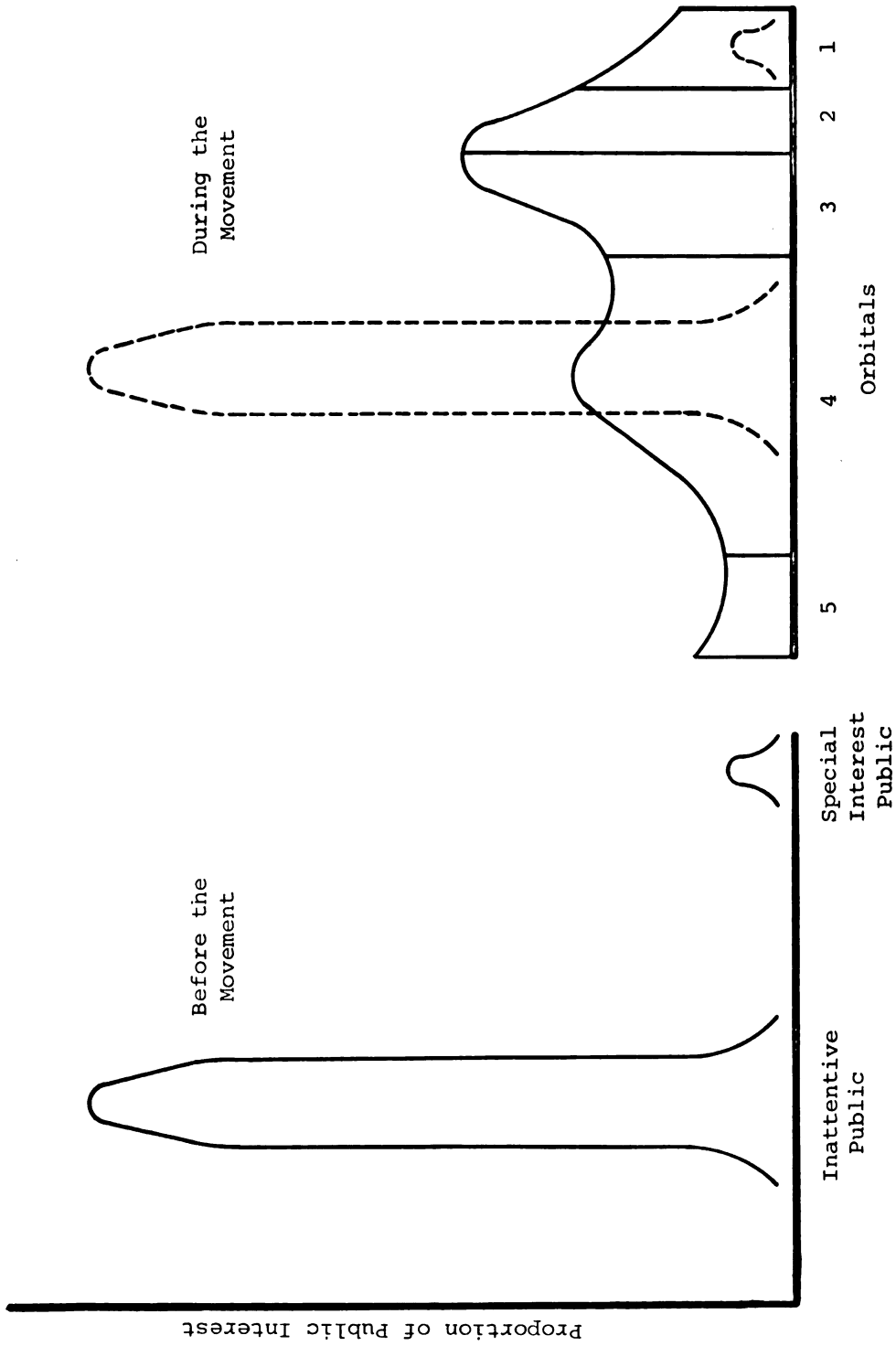


Figure 2.--Hypothetical distributions of public interest orbitals before and during movement activity.

distinction requires the added consideration of the point in time in question. We are well advised not to give all of our attention to the movement structure per se, but to the changes in the composition and size of these different orbitals as well. Before the movement develops, everyone may logically be placed in the "inattentive" orbit, except for the ubiquitous theoretical "interest groups" such as conservation organizations for the environmental movement. As the movement develops, the redistribution of interest flows in the direction of normative support of the movement, with peaks in the areas of orbits two, four, and perhaps five, depending on the comparative deviance from the normative order the movement ideology implies or the real threats posed by the movement reform programs. Further specifications would best be left as empirical questions, as the development of possible movement configurations may be characterized many different ways. (For the actual distribution of interest in the environmental movement, see Figure 9, page 111).

From the foregoing summary of the conceptualization of public opinion, formal voluntary organizations, and social movements found in various works, we conclude the following: Social movements are based upon a range of phenomena from the general opinion bias of uncommitted individuals to the developed ideology of movement organization leaders. Empirically we can develop knowledge about this range of phenomena by two common procedures: the collection and analysis of poll data about attitudes toward the movement issue and the participation in and observation of movement organizations throughout the full range of their activities. Although the former process permits inferences to a larger

frame of reference, its conclusions may be of questionable validity when applied to the theoretical conception of social movements. The latter process permits detailed study of a movement organization, but it is difficult to place that experiential information in the context of activities that involve much more than one organization (see Appendix B). In any case, there are numerous examples of both efforts, which have succeeded in making significant contributions in spite of their limitations. Yet there is a third alternative that has yet to be tried.

It is possible to address to the public a question that does not stimulate responses characteristic of the mass public at large. At the same time, it is possible to collect a kind of datum that can be theoretically associated with what is conceived of as requisite for involvement in a social movement. The question is: "What do you think is the nation's greatest problem?" (hereafter referred to as the MIP-type question for "most important problem"). The datum to be associated with social movements is a response in a category defined by other criteria to correspond with the issues and the subject matter of the movement--derived from an examination of the movement literature. The assumption is that if involvement in a movement must be signified by something more than agreeableness to its cause (that is, one must be of the attentive public rather than the mass public), then the spontaneous mention, without suggestive solicitation, of movement issues is such an indicator of involvement, broadly defined. Such a measure would not reflect the normative bias of the mass public that a structured question would elicit by cueing the respondents to the topic.

it may be ant

organization

with or contri

issues as the

away superficial

that are in

associated with

important tr

of social p

survey re

tion research

romental p

result from

(keeping in m

sitive to dir

assumed to

specifically

The p

will serve

section of

bear meaning

following

of a social

class, and

tion toward

It may be anticipated that people who are active in formal voluntary organizations representing the movement interests, and correspondents with or contributors to such organizations, would mention the movement issues as the "most important problem." The question serves to pare away superficial opinions while retaining a smaller core of opinions that are theoretically important because they logically would also be associated with movement activity as commonly conceived. The "most important problem" (MIP) question is an indicator of a level and type of social movement involvement that avoids the conventional bias of survey research and the limitations of intensive participant observation research. The data to be collected in this study of the environmental movement will utilize such an indicator. The data that result from this operation will be referred to as "environmental bias" (keeping in mind that such an unstructured question is basically insensitive to direction as favor or disfavor). Environmental bias is assumed to be promovement. However, that question will be taken up specifically as a matter of evaluating the indicator and findings.

The measurement of a social movement by the indicator discussed will serve several specific purposes, to be discussed in the following section of this chapter. One general purpose that will be served should bear meaningfully on the theory of social movements as it exists. The following question will be answered, at least in part: Are "members of a social movement . . . heterogeneous not only as to age, sex, social class, and other objective characteristics, but also in their orientation toward the movement and its values"? (Killian, 1964:444).

The
movement part
ience. People
activity, de
especially th
socialization
the appeals of
their life co
two facets: 1
response to th
differently us
aging itself
from the same
problem of gen
ences from

The the
former of the
people involved
data available
erence, however,

1 See G.
conceptual proble
gitudinal data an
the sociology of
(1972:127). Aff
and period distri

Age and the Generations Theory of Social
Movement Participation

The generations theory of social movements suggests that social movement participation is a function of historical and life course experience. People are differentially sensitive to contemporary movement activity, depending upon their early social and political experiences, especially those that transpire during the period of their political socialization in youth. People are, as well, differentially prone to the appeals of social and political movements at different points in their life course. The theory of generations, then, may be divided into two facets: First, political generations are thought to develop in response to historical events such as wars and depressions, which weigh differently upon people of different ages; and, second, the effects of aging itself differentiate the opinions of people experiencing history from the same point of view in time. Any empirical treatment of the problem of generations faces the problem of separating historical influences from aging influences.¹

The theory and empirical efforts of this work focus only on the former of these distinctions, since a treatment of the aging effects of people involved in the environmental movement is not fully covered by data available to date. Within the "political generations" scope of reference, however, we are concerned only with the age strata and period

¹See Crittenden (1962) and Riley et al. (1972:69-85) on the conceptual problem of separating aging and historical effects in longitudinal data analysis. Mannheim referred to a similar problem as the sociology of chronological tables (geschichtstabelle Soziologie) (1972:127). Appendix F reviews the technical aspects of age, cohort, and period distinctions.

differentials in
cohort effects
methods that are
longer data base

There are
generations.¹
of generations
World War II
published an
has been under
works serve as
ture of the di
the theory of

Vannheim on

Marx
midway betw
"concrete pr
association
category, "

1
its first
Marias (19
flict and
cross-cult
tem (fami
to modern.

differentials in environmental interest rather than with aging and cohort effects (see Appendix F). The latter effort would require methods that are not well developed (Mason et al., 1973) and a much longer data base than is available.

There are two major, classical developments of the theory of generations.¹ Karl Mannheim's (1972) essay on the sociological problem of generations is undoubtedly the major work on the subject in the pre-World War II period. Shortly after World War II, Rudolf Heberle (1951) published an exceptionally insightful text on social movements, which has been underevaluated by latter-day students of the subject. Both works serve as key points of departure for determining a clearer picture of the difference age makes in social movement recruitment and in the theory of social movements.

Mannheim on Generations

Mannheim's conception of generations as a social entity falls midway between statistical groups, such as the birth cohort, and "concrete groups," such as the community (*gemeinschaftgebilde*) and associations (*gesellschaftgebilde*). Generations are part of a third category, "location groups" (*lagerung*), of which social class and

¹For a review of the conceptual history of "generations" since its first scientific formulation by Comte, see historical philosopher Marias (1967); also the thought-provoking study of generational conflict and student movements by Feuer (1969). For the macro-level, cross-cultural treatment of age grading and grouping in the social system (family to polity) and its influence on social change from primitive to modern societies, see Eisenstadt (1956).

generations are subgroups. Generations are to be distinguished from mere cohorts by the process of the "stratification of experience" (erlebnisschichtung), by which members of a society come to be influenced by history in a like manner. However, generations are again stratified into elements called "generation units," which achieve identity by reflecting similar reactions to history, possessing a common "gestalt" for that history, and developing a common stock of ideas and concepts--that does not obtain when applied to other generation units--by which to characterize their unique existence. Historical events that weigh heavily on a generation may thus result in the formation of more than one generation unit, which can be characterized by antithetical themes. "Youth experiencing the same concrete historical problems may be said to be part of the same actual generation; while those groups within the same actual generation which work up the material of their common experiences in different specific ways, constitute separate generation units" (1972:120). Interaction between generation units and concrete groups can provide a direct means of expression of the gestalt of a generation unit or, if concentrated in time and space, members of a generation unit can form new organizations.

The stratification of experience follows from the "natural data" or "biological rhythm" inherent in the processes of cohort succession, partial socialization, and historical evolution. Mannheim summarized the process as follows:

New participants in the cultural process are emerging, whilst former participants in that process are continually disappearing; members of any one generation can participate in only a temporarily limited section of the historical process, and it is therefore

necessary continually to transmit the accumulated cultural heritage; the transmission from generation to generation is a continuous process (1972:107).

Mannheim did not fall into the error committed by many social historians who are fascinated with generational phenomena that come to their attention, and conclude that cycles are operating by which society moves like an inchworm pacing out its progress. Instead, many generations are present at any one time. During periods of stability, "the younger generation tends to adapt itself to the older, even to the point of making itself appear older" (1972:117). During periods of instability, the older generations turn to younger generations as a source of creative insight and adaptation. Curiously, "the process can be so intensified that, with an elasticity of mind won in the course of experience, the older generation may even achieve greater adaptability in certain spheres than the intermediary generations, who may not yet be in a position to relinquish their original approach" (1972:117).

As with many scholars who became fascinated with the problem of political generations, Mannheim believed there is a single key period, around the age of 17, when intellectual curiosity and skepticism make one especially receptive to the prevalent ideas of the day (1972:115). Moreover, ideas formed in youth are lasting. Mannheim may be criticized for placing undue emphasis on youth's sensitivity to political events and asserting that the resultant political frame of reference dominates all later experience. He claimed that "if the rest of one's life consisted in one long process of negation and destruction of the natural world view acquired in youth, the determining influence of these early impressions would still be predominant" (1972:113).

Without detracting from the importance of youthful political experience, whether that youthful experience is dominant throughout life depends on the political salience of that period of history in comparison with the prominence of periods which follow it and are in the experiential realm of the individual. It seems reasonable to argue that people who were sensitive to the political events of the "silent 50s" (people aged 18-30) might have been even more politicized by the "tumultuous 60s" or the "tricky 70s," and not always as negations of experience resulting from their politically sensitive years in the 50s, as Mannheim would have us believe. The question of political generations has become, in recent years, a complicated question of empirical measurement and suitable data bases.¹

As an explanation of social movements, generation theories have several similarities to the Marxian theory of class conflict. Mannheim noted that:

The fact of belonging to the same class, and that of belonging to the same generation or age group, have this in common that both endow the individuals sharing in them with a common location in the social and historical process, and thereby limit them to a specific range of potential experience, predisposing them for a certain characteristic mode of thought and experience, and a characteristic type of historically relevant action (1972: 106).

Mannheim specified that generations must be thought of not simply as cohorts but cohorts that are further substratified according to their social location at the time of key historical events. The theory of generations may be thought of as a specification of the general theory of class politics but one that is more sensitive to the processes of

¹See Foner (1972), especially p. 135.

individual and
of class lead
ditions, g
patterns of
by the nature
(Mannheim, 1
would be more
class political
of biological
the interven-

erations are
Moreover, the
mation of pol
of political
a more detailed
matters through
problem of pol
ical movements
that serve to
foundations of

Heberle on Social

Heberle
vior suggests a
differ from old

individual and social change (Mannheim, 1972:102). "While the nature of class location can be explained in terms of economic and social conditions, generation location is determined by the way in which certain patterns of expectations and thought tend to be brought into existence by the natural data of the transition from one generation to another" (Mannheim, 1972:107). The perspective of the theory of generations would be more suited to a time-sensitive analysis than a theory of class politics alone, in that it takes into account both the processes of biological/social aging and the "suspension" of the process that the intervention of historically discrete events necessarily implies.

Unfortunately, Mannheim was less than explicit about how generations are formed by means of the "stratification of experience." Moreover, his contribution was constrained by his fixation on the formation of political perspectives in youth. Believing that the casting of political judgment occurs in the mold of youth enabled him to avoid a more detailed consideration of the differential role of political matters throughout the life course. Rudolf Heberle, taking on the problem of political generations as an explanation of social and political movements, focused more directly on the structural determinants that serve to stratify cohorts as well as the social-psychological foundations of political judgment at different age levels.

Heberle on Generations

Heberle's review of the literature that covers political behavior suggests a common underlying idea: "that younger people tend to differ from older people in their outlook on life and consequently in

their P
by a "So
enced and
generatio
period of
to the sam
themselves
(1951:112).
German "to
political
1951:101-11
the "democr
(1951:123).
social movem
some individ
socialization
are formed
of that futur
imagined or ex
changes do not
the changes an
individual be
kind of world
during earlier
Heberle, socia

their political views" (Heberle, 1951:118). A generation is determined by a "decisive experience" that transforms the way history is experienced and interpreted (Heberle, 1952:122). Heberle used the notion of generation to refer to people socialized during a narrowly defined period of time, a community of kindred minds, subject, more or less, to the same historical experiences. "All men of a generation feel themselves linked by a community of standpoints, of beliefs and wishes" (1951:119). Like Mannheim, Heberle emphasized the importance of classic German "temperament theories," which associate political outlook with political behavior as differentiated by the "seasons of life" (Heberle, 1951:101-102, Ch.6). Generations are defined as people experiencing the "decisive experience" during the youthful "season" of their lives (1951:122). It is not the generation per se that forms the core of social movements, however, but the relations that come to exist between some individuals and the remainder of their social context. During the socialization period, certain goals, values, beliefs, and expectations are formed about one's role in the future and the structural components of that future. Many things happen over time, which act to prevent the imagined or expected future from coming about. The effects of the changes do not ramify equally on all people, nor do all people accept the changes and adapt to them in the same manner. In a sense, the individual behaving in a real world becomes deprived in relation to the kind of world he expected and with which he has been prepared to cope during earlier socialization experiences. In general, according to Heberle, social movements may be attractive to people who "for one

reason or another . . . [are] prevented from achieving the goals of their youthful ambitions" (1951:127).

A generation would rarely be an entire birth cohort, but some subset that, by virtue of its class or occupational characteristics, becomes sensitized by social or political conditions and continues to react in terms of that experience during subsequent periods. An event that prompts a generational reaction may result in several generations reacting to the event, perhaps with favor or disfavor, depending on their social locations. Location in the social structure, according to Heberle, channels the impact of historical processes. Location is particularly defined with a major emphasis on intervening structural variables such as geographical location, age, and class (re: occupation, income). Morrison et al. (1972) suggested how an application of Heberle's perspective could result in the case of the environmental movement. The generation activated by the environmental movement may split along age (older vs. younger) as well as occupational lines (threatened vs. nonthreatened industries), producing a four-way classification of pro- and antienvironmental factions. Such differences are a result of the relationship between a person's position in his life cycle and his role in the division of labor, and the differential impacts on each of these by the environmental movement.

Heberle characterized young people as more frequently being recruited to social movements because of affectual motivation, referring to one of Weber's four types of rational action (1951:96). The effects of aging, it may be argued, displace this form of action for another form, which is a rational-purposive strategy (*zweckrationalitat*)

that deliberate

means-costs

1947:115, 3

be more inclined

typically and

the middle of

since their

speculated to

for political

different kinds

vehicles for

History

motives of war

more purposive

The history
tries have
and profits
balanced,
a fact which
aries (1941)

From

problem of gov-

for believing

ical and social

different age

1. Also
"ethic of respect"
vided an inter-
tinction between
(Poner, 1972:15)

that deliberately involves desired ends-benefits as well as possible means-costs of one against a set of alternative objectives (Weber, 1947:115, 38n). For purely moral reform movements, youth would likely be more inclined to offer endorsement, as their stock-in-trade is typically ideas and emotions. For material/structural reform movements, the middle aged would likely be more inclined to offer endorsement, since their stock-in-trade is typically material resources. It may be speculated that institutionalized politics is an ideal competitive arena for political resolutions based on conflicts of interests of parties with different bases of material wealth, while social movements are ideal vehicles for the expression of political problems of the moral sort.

Heberle added to this distinction the idea that the changing motives of subsequent recruits to a social movement become progressively more purposive rather than affective (1951:100).

The history of the socialist labor movement in all Western countries has been characterized by a gradual elimination of fanatics and prophets and an increasing predominance of sober-minded, well-balanced, practical men with administrative and political ability--a fact which has often been deplored by disillusioned revolutionaries (1951:114).¹

From the efforts of Mannheim and Heberle, two facets of the problem of generations become apparent: First Mannheim provided grounds for believing that key historical events will ramify into future political and social problems according to the events' impact on people at different age levels--presumably, the youth in particular. Mannheim was

¹Also see Weber on youth's "ethic of ultimate ends" and age's "ethic of responsibility" (Gerth and Mills, 1958:120-128). Foner provided an interesting approach to the problem as a matter of the distinction between class (material) vs. status (ideational) politics (Foner, 1972:151-155).

obscure, however, about the process involved in the cleaving of a generation into several "generation units." Heberle added the point that a host of social structural variables--occupation, possibly race, geographic region, etc.--intervene in the process to differentiate further the articulation of key events to various subgroups of society.¹ He also was more lucid than Mannheim on the subject of the "politics of age" and how people of different age levels are predisposed to different forms of political expression. What is still lacking in this gradually more precise picture of age differentiations in response to historical events is a clear picture of what the "politics of age" is and how it works. For that we turn to the empirical work on youth and aged politics, which has grown rapidly in the last decade of social science writing.

To Change or Not to Change-- The Politics of Age

Whether one tends to opt for social changes or against them depends on how a person views the impact of change on his/her own life. "Any social and political movement which rebels against existing social institutions will attract individuals who have been suffering real or imagined injustice under these institutions" (Heberle, 1951:112). On the other hand, "opposition . . . will tend to come from those who

¹Heberle is perhaps better known to sociologists for his "ecological" approach to social and political movements. We have emphasized the facet of Heberle's work that bears on present concerns to the exclusion of other, equally fascinating ideas Heberle has developed. (For a discussion of geographic and economic influences on political movements, see Heberle [1951:212]).

view . . . [the] movement as a real or potential source of frustration-- that is, a movement which will disturb accepted values and attitudes" (Edwards quoted in Heberle, 1951:106). The view one adopts about change is less favorable as age advances, excepting those changes (and movements) that are specifically age graded in their impacts. It is not age alone, however, that determines reactivity to change, but the entire syndrome of effects that accompany aging and the interplay between mental outlook and social location, as will be shown (cf. McNeil and Thompson, 1971:635).

Youth Politics.-- Young people, in the aggregate, chronically reflect low participation rates in conventional politics. Yet student youth and youth generally, as will be shown, reflect great vigor and enthusiasm for innovative causes and selected political issues. In many respects, the politics of student youth may be seen as results of at least three distinct conditions:

1. The spontaneity and urgency of political ideals pursued by youth and the generally time-consuming process of institutional political activity (Mazda, 1964:210; Cain, 1964:295; Riley et al., 1968: 476; Riley et al., 1972:129-130).

2. The age-homogenous nature of the educational institutions; their digestive presentation of knowledge in component parts; their high value of purity of ideas, which tends to degenerate into a chaste dogmatism of thought; and their general value of discovery and innovation (Riley et al., 1972:148).

3. The marginal role of the college-age person, unprotected by parental ties, unconstrained by personal family ties, legally an

adult yet without resources, and often having fewer skills than he can psychologically admit (Sarnoff, 1962:392).

While the opportunity for full political participation in conventional politics is not well suited to youth, the opportunity for immediate immersion in "movement politics" of one sort or another is a perennial condition of the experimental climate of universities.

By way of contrast to student politics, young people who are not involved in centers of higher learning because of going directly to work or into trade schools would not be expected to reflect the spirit of political volatility characteristic of some students in centers of higher learning. Similarly, one would not expect students engaged in highly demanding academic work to be as involved as students with more leisure or students whose focus of study is also a focus of protest (or could be conceived as such). The nature and degree of political involvement rests on a community of interests into which nonstudent youth are evolving (the "work-a-day" world) and from which student youth are isolated (Riley et al., 1972:130, n20). Heberle paraphrased the conclusions of social psychologist Eduard Spranger, noting that "working-class youth are more ready to think in terms of concrete aims than middle-class youth, presumably because they have more experience" (1951:102).

The politics of youth has extensively been explained as a product of psychological alienation from parents, the world, from "basic values," etc. One of the more renowned treatments of youth movements rests its case on parental rebellion, specifically father-son conflict (Feuer, 1969). Other causes of youth protest have been named

"alienation, estrangement, disaffection, anomie, withdrawal, disengagement, separation, non-involvement, apathy, indifference, and neutralism" (Keniston, 1960:1; see also Bay, 1967). Indeed, the activity of explaining generational conflict has been a respectable pastime since Plato and Aristotle. However, the empirical support for explanations such as these is slim (Flacks, 1967:66-68; Lipset and Altbach, 1967; Lane, 1959; Riley et al., 1972:149). As Matza noted, the term "alienation," as applied to the political reactions of youth (and older people as well), obscures "the obvious fact that integration in social systems is a matter of degree" (1964:198)--age-graded degree, we should hasten to point out. It is not surprising to find alienation a concept that can be applied with facility to all malcontents--youth, the aged, minorities, even, when convenient, the middle class in general (Lystad, 1972). The application of the alienation concept reflects the problem that to name is not to explain.

The process of the commitment of youth and the disengagement of the aged involves the creation and destruction of motives on which the individual places his identity, as well as his self-interests in the society of which he is a member. It is important to keep in mind that excessive commitment or disengagement results in social problems. There is, of course, no consensus about what is the optimum degree of commitment or disengagement.

Aged Politics.--It is not surprising to find explanations of the political behavior of older people to be, in essence, mirror images of the explanations offered for the political behavior of youth; the

political ramifications, however, are the opposite. A major theme of the social gerontological literature is that people become more inflexible as they grow older. Theories of the social behavior of older people are variously referred to as the "fixation model" (Carlsson and Karlsson, 1972:710) or the "theory of disengagement" (Cuming and Henry, 1961). Support for the fixation model is drawn from psycho-physiological research, which supports the idea that real changes occur in the physical metabolism of aging people (Ryder, 1965; Carlsson and Karlsson, 1972; Evan, 1959). Physiological changes may also create a situation of real or imaginary threats to which a natural reaction is a rigid, dogmatic, and/or conservative behavior" (Klecka, 1971:360). A more sociological explanation is the disengagement theory, which suggests that the "transition from middle age to senescence is characterized by progressive disengagement of the individual from other members of the society" (Cuming and Henry, 1961; Cain, 1964:275; Gergen and Back, 1966).

The entire normative syndrome toward aging in America, from retirement law to retirement villages, involves the easing of "old folks" into activities that are economically, politically, and socially innocuous. At least one author has suggested that the consequences of this syndrome might be other than expected under certain circumstances.

The circumstances of social dislocation may render the individual receptive to suggestion and vulnerable to the appeal of social movements, and, by separating older people from the diffuse orientations of the larger community, groups of age peers may provide the organizational basis and cognitive frame of reference for individuals to give expression to their common dissatisfactions (Trela, 1972:244).

While it is true that old people are nudged into retirement villages and young people are hustled into universities, the expression of dissent

and protest does not follow in both cases. Just as the young are denied the sanctions of cooperative behavior with older age groups and engage in political dissent, the very old are denied the sanctions of cooperative behavior with younger people and stagnate. One cannot help but wonder if rigidity and other behaviors attributed to the aged are not simply rational responses to the social positions in which older people are placed. "Disengagement of the elderly," noted Glenn and Grimes, "may typically entail only certain aspects of societal involvement. The process is initiated by others and the elderly acquiesce to it with reluctance" (1968:574).

Milbrath summarized the relationship between age and political participation: "Participation rises gradually with age, reaches its peak and levels off in the forties and fifties, and gradually declines after sixty" (1965:134). Riley et al. (1972) indicated similar findings for a wide variety of studies, except they suggested the drop-off for political participation more frequently occurs in the seventies and is attributed to mortality and health constraints rather than loss of political interest. For all income groups, political bias grows in a conservative direction as aging takes place (Riley et al., 1968:471). Older people tend to be more change resistant and less tolerant of political and social nonconformism, even when education is taken into account (Riley et al., 1968:473).

In essence, the age distribution of people involved in a nonage-specific social movement would be expected to be greatest for young people, decreasing with increasing age. This is essentially the opposite of the characterization for conventional political participation, which seems

logical given the understanding that social movements are normally concerned with social changes which cannot be readily accomplished by conventional political arrangements. These complementary theoretical notions highlight the tendency of older people to find suitable political expression in institutional forms (where their political power is dominant),¹ but younger people, when they choose to engage in political expression, gravitate more toward the nontraditional modes of expression where their creativity, enthusiasm, and freedom to act operate to their advantage.²

The mechanism operating in the aging process revolves around the increasing tendency for the actor to arrange for a "career," which is possible only when some prediction of the future is possible. Prediction is based on the knowledge that there will be no change or, if there is change, it will be at known or predictable rates that will allow gradual adaptation. The adoption of innovations with unknown persistence or impacts may be increasingly threatening as one ages. As goals and objectives of life become more clearly defined, the pressure to take actions appropriate to those goals and objectives increases. The effect is to increase the search for dependable conditions.

The young are uniquely prepared to cope with change and innovation. Their repertoire of experience upon which to base critical

¹Heberle estimated that the politically dominant generation is composed of adults roughly between 40 and 65 years of age (1951: 123); also Marias (1967:96).

²For an interesting comparison of the role of youth in campus political organizing and demonstrations vs. their role at the polls, see Hyman (1972b).

judgment in
rapid accor
(cf. Feuer,
undergo con
ments where
passage of
tions of sta
the totem pol
of change in
in the direct
ditions, whil
time and eff

Minist
the aged to
tions tend
in referen
1972:113).
tionship to
characterized
political ex
power and w

Growing con
resistance
to changing
of the per
structure.
conservati
to hold on
ment, Rattr
et al., 197

judgment has not had a chance to form. Their strength lies in their rapid accommodation to change with minimum personal discomfort (cf. Feuer, 1969:388; Mannheim, 1972:111). Younger people frequently undergo considerable discomfort in routinized but complex social arrangements where the basic problem is "learning the ropes" and biding the passage of time, which will eventually carry them into existing positions of status. As "newcomers," if youth can arrange a reshuffle of the totem pole, it can only operate to their advantage. The advocacy of change is strategic youth politics--change tips the balance of power in the direction of those who can adapt their futures to the new conditions, while those who are committed to lines of action in which much time and effort have been invested are relatively disadvantaged.

Mindful of the old saw, "new is not always better," politics of the aged tends to be conservative. Many commentators on political generations tend to convert the logic of age politics to a biologism, especially in reference to the conservatism of the aged (for example, Mannheim, 1972:113). It might be pointed out, however, that it is not the relationship to the status quo (for either the old or the young) that characterizes age politics, but the pursuit and endorsement of a political environment over which the actor feels he has controlling power and within which he feels capable of managing his future.

Growing commitment to society does not necessarily imply any blanket resistance to change in attitude or values, but rather a resistance to changing those attitudes implicated in the fundamental structure of the person's environment or in the values associated with this structure. . . . The person's tendency to shift toward political conservatism might then express, not a change at all, but an attempt to hold on to that structure to which he has worked out an adjustment, rather than risking the unknown consequences of change (Riley et al., 1972:139). (Italics mine.)

The aged are in no position to renegotiate their investments in life, since all of their payments are about up. Rationalizing in this way, they are able to operate within a complex system as though they understand it, when they have simply learned what to expect from it during its frequent throes of chaos. Youth, believing they understand the system and believing they know what they want from it, are ready to define and demand what they want when they sense its chaotic state of affairs. The edge older people have, possibly, is the knowledge that the system is not supposed to make sense and therefore cannot be chaotic.

Undoubtedly, both the elements of physical change and the organization of society tend to advance the onset of "old folks" role playing. However, it has also been pointed out that as age advances, and the duration of the future diminishes, cognitive patterns also change (Back and Gergen, 1963). The accumulated experience of the years tempers the enthusiasm to accept change, giving older people skepticism of a unique point of view from which current changes are not totally new in comparison with past changes, more of which are likely to be known to the older person. In other words, as the volume of changes one has witnessed increases, the comparative innovative character of any single change is diminished, and with that, the crucial nature of any single innovation subsides. Part of this reaction is because of the sheer volume of changes, which increases with age. Part is a result of the benefit (from change)/cost (of change) ratio associated with any given event, which decreases with aging.

Social Integration and
Collective Behavior

As with the theories of generation and age politics, many theories attempting to explain the occurrence of movements of conflict and change eventually narrow the problem down to the degree of integration into society. At the micro level, people who are less integrated into the social structure are more available to become involved in movements of conflict and change (cf. Ryder, 1964:460; Ryder, 1965:849). At the macro level, societies reflecting less connectedness of interactional networks are also more prone to experience movements of conflict and change. (This is essentially Kornhauser's "mass society thesis" [1959]; some empirical support is provided by Pinard, 1963; Gamson, 1966.) Studies of participants in collective behavior do, in fact, support the idea that participants in one form of collective behavior, riots, are younger people who tend to be unmarried, unemployed, less well educated, and generally without constraining alliances with their communities (Wada and Davis, 1957; Solomon and Fishman, 1964; Kerner, 1968; Kerckhoff et al., 1965). These characteristics tend to be true even when compared to the characteristics of the community within which the activity takes place (Geschwender and Singer, 1970). When the characteristics of riot participants are controlled for age, they are found to be "less well educated . . . than their riot-zone counterparts. They have lower occupational status, lower weekly incomes, and have experienced greater unemployment in the year preceding the riot" (Geschwender and Singer, 1970:463).¹ Such research

¹Contrasting views of rioters are expressed by Fogelson and Hill, 1967; and Caplan and Paige, 1968.

in collective behavior seems to indicate that an underlying condition is present that is not unlike the absence of commitment among dissident college populations and older disengaged people. The social "integration" concept comes to mind. Degrees of social "integration" (Holzner, 1967) have received consistent attention from sociologists over the years, but applications tend to be grandiose and not inherently suited to theoretical precision or empirical demonstration. However, beginning with Ryder's classic essay on the role of the cohort in social change, we find a more reasonable attempt to sort out the relationships among aging, political style, and social change. The most extensively developed continuation of that effort to date was by Riley et al. (1972).

Although implicit in many places (including all of those mentioned thus far), a concise statement at a low level of abstraction that connects this diverse literature has not been made. At the same time, there exists a very systematic and specific sociological focus on the concept of "commitment," but this has rarely been systematically applied to the problem of social and political movements and social change.¹ The following discussion is a step in the direction of completing the missing links or, at least, pointing out the significance of the "commitment" concept. While the result is not

¹Although the term has been widely used descriptively in relation to political and social movement behavior, it has not been elevated to the ranks of central concepts in theory construction. Cf. Oberschall, 1973:225; Foner, 1972:129; Campbell et al., 1960:164, 496-498; Lipset et al., 1954:1128-1134; Cain, 1964:296, 303-304; Abrams, 1972:106-107; Ryder, 1965:849-850, 856; Glenn and Grimes, 1968:572; McNeil and Thompson, 1971:635; Trela, 1972:244, 250-251; Zeitlin, 1966:507; Matza, 1964:207; Rush and Denisoff, 1971:469.

complete, it provides a sufficient foundation for the assumptions and hypotheses to be generated in the following chapter.

Age and Social Commitment

In the foregoing review of literature on age and politics, a basically simple theme has become somewhat complicated by the approaches of scholars with diverse interests. All of the theories--generations, alienation, disengagement, and fixation--involve a few basic points with respect to aging. These notions can be and have been concisely expressed by the notion of commitment to the existing social structure.¹ By focusing attention on the strength of the bond between the actor and the social system, this concept expresses the difference that age makes in political behavior. Age itself is only an indicator of an underlying relationship between the individual and society; i.e., it is not being under 30, per se, that may predispose one toward social movement involvement more than being over 30 does, but rather the social location and social roles implied by the status of being a given age. The single concept of commitment may be broadly applied to capture the implications of age differentials and the varieties of status differentials associated with aging.

In the early sixties, the idea of social commitment as a measure of social integration became popular. The notion of commitments and investments is integral to the exchange theories of Homans (1961: 235 ff) and Blau (1967:160-165), which specify that certain activities,

¹Commitment, as used here, refers only to commitment with respect to the existing social structure. If commitment to a social movement is being discussed, the term "movement commitment" will be used.

once performed, ramify in future exchanges. Moreover, all changes are to a large extent the result of prior activity patterns and experience (see Riley et al., 1972:124-156; Smith, 1969; Campbell et al., 1960:164, 496-498; Lipset et al., 1954:1128-1134). Man's contemporary behavior is based on recollections of past activity and projections of future activity, as well as assessments of present conditions.

According to Becker, commitments ("side bets") are defined as the number of extraneous prior actions an individual makes that dictate the pursuit of consistent lines of action (1960:38). The more committed a person is to his own past behavior, the fewer the degrees of freedom to adopt alternative modes of behavior in the present. "Committed lines are those lines of action the actor feels obligated to pursue by force of penalty. . . . Committed lines . . . are sequences of action with penalties and costs so arranged as to guarantee their selection" (Abrahamson, 1958:16). The degree of commitment is a function of the number and kinds of activities that bring people into normative exchange relationships with others in the context of ongoing social role playing. Commitments may be operationalized by several schemes, including: involvement in functional economic roles, networks of informal affiliations and associations; economic investments; legal contracts; political, racial, religious, or ethnic bonds and identities; and investments in time.

Kornhauser's study of political commitment (1962) focused on the varying degrees of constraint on behavior that are found to accompany different degrees of ideological extremism. A major point of Kornhauser's study of liberal and radical movement organization members

was that increases in ideological movement commitment required decreases in commitment to the "outside" world--withdrawal from nonmovement friendship ties, abandonment of recreational pastimes, and deterioration of occupational performance, including loss of jobs. In this case, the finite nature of discretionary time would require that conflicting activities be reciprocally related. This would be most characteristic of "radical" (counter-cultural) groups, but less so for reform movements with conventional objectives. For conventional reform movements, "movement time" and routine social time investments would overlap somewhat, so that increasing movement commitment would not strictly require reductions of social commitment. In the extreme, commitment to society and movement commitment would tend to merge for the movement to uphold the status quo or the counter-movement to suppress radical reform movements. It can readily be seen that if we continue to use commitment as a tradeoff between social roles and movement roles (as a dependent variable), the abstraction quickly degenerates into the relativistic problem of specifying the particular movement we are talking about so the social centrality of the ideology can be determined and the implied commitment status of members and nonmembers established. For the purpose of analytical clarity, therefore, commitment is used only in reference to the relationship of the individual to the existing social structure from which variously committed social movement recruits may emerge. This is particularly justifiable because societal commitment begins with the earliest phases of socialization, whereas people become intellectually available for movement recruitment only after considerable progress has been made in that activity. Societal commitment is



empirically antecedent to movement commitment and is a logical point of reference for movement analysis.

We are faced with the following limitation: While the concept of commitment answers the general question "Who is free to join?" it does not address the specific question "Whom does it benefit to join?" The latter question is theoretically unanswerable in the abstract, because it depends on the movement program and the historically unique time of its occurrence.

Recruitment to a social movement is a function of commitment to society, but commitment is a process-bound concept, and is taken to be an independent variable. Commitment was further defined by Stebbins as "the awareness of the impossibility of choosing a different social identity . . . because of the imminence of penalties involved in making the switch" (1970:527). Committed lines of action are infused with some degree of normative affect; thus the continuance of an activity pattern matters, if not for its own intrinsic merits, for reasons that are related to it, such as the ratification of behavior by a significant other (Foote, 1951:17). The process-oriented concept of commitment is referred to as "continuance commitment" and should not be confused with "value commitment," which is defined as "a frame of mind that arises from the presence . . . of subjectively defined rewards associated with a particular position or social identity in which the person finds himself" (Stebbins, 1970:527). In other words, one's values might suggest that war is bad (value commitment as a dependent variable) but that suggestion does not imply flight from military conscription as the rational action because of competing, prior commitments,

such as large monetary investment in one's education, normative expectations from loved ones, or physical dependencies of one's own family (continuance commitment as an independent variable).

Continuance commitment suggests that patterns of activity for the actor tend to become internally congruent as age increases.

A person's past affects his present, and his present affects his future. Persistence is enhanced by the tendency to structure inputs, so that each will disturb as little as possible the previous cognitive, normative or even esthetic design, and, in the extreme, to reject dissonant items (Ryder, 1965:856).

More tersely, "an individual life is an organic entity, and the successive events that constitute it are not random but patterned (Ryder, 1965:856).¹ Age is the best single gross indicator of the importance to the actor of the pattern of commitments that accrue over time into a mutually reinforcing syndrome.

Age, however, is only one indicant of commitment. It is an empirical question as to whether age or some other indicator might best reflect varying degrees of commitment. Lansing and Kish (1957)

¹Factors that covary with age and contribute to commitment include employment status (Ryder, 1965:851; Zeitlin, 1966:506), characteristics and duration of education (Ryder, 1965:845), occupational distribution of the cohort and its chances in the labor market (Ryder, 1965:847; Heberle, 1951:126), family ties and residential commitments (Ryder, 1965:848), community ties and participation in formal voluntary organizations (Carlsson and Karlsson, 1972; Trela, 1972; Phillips, 1969), and subjectivity to cross pressures (Trela, 1972; Glenn and Grimes, 1968:573). None of these variables has been synthesized into a common explanatory scheme but steps in that direction have been suggested by Ryder (1965, 1964) and McNeil and Thompson (1972). Riley *et al.* (1972) defined a model that attempts to show how cohort flow regenerates the social structure by virtue of its relationship to the division of labor (roles and sanction systems operate over time to rejuvenate the society with actors performing functions appropriate to emergent needs of the social system). Also see Blau and Duncan (1967) and Kelley (1973).

attempted to determine whether age or stage in the family life-cycle (another indicant of commitment) served best to account for such dependent variables as indebtedness, wife working, size of income, and ownership of several major material goods (home, automobile, and television). Stage in family life-cycle (FLC) may be considered a commitment indicator in that being young and single connotes fewer ties between the actor and his community than being older, married, and having children, to mention two of Lansing and Kish's eight FLC stages. The FLC variable was found to be more highly correlated with the dependent variables than age. What Lansing and Kish showed was that there exists a syndrome of associated conditions that vary over the lifetime of the individual. Their dependent variables themselves can be seen to be indicants of commitment. Ideally, one would want to examine the association between some contingent condition, such as recruitment to a social movement, and these commitment indicators.

Milbrath amplified the general findings of Lansing and Kish by pointing out that "the most apathetic group are the young, unmarried citizens who are only marginally integrated into their community" (1965: 134). He went on to suggest that community integration, availability of free time, and good health are key intervening variables between life cycle and political participation. It is not difficult to imagine how indebtedness, the presence of children, and other age-graded patterns operate to thwart or support political participation, and it seems a logical extension to conclude that the same conditions also affect social movement propensity.

For all the elusiveness of the concept of commitment to become defined so rigorously as to avoid all conceivable objections, in empirical application the operationalizations of commitment have been quite informative.

Hajda's examination of student intellectuals found that alienation varied with:

- (1) the number of qualitatively different collectivities an individual belongs to and thus the number of subcultures he participates in;
- (2) the extent to which the membership in these collectivities is concentrically coordinated with, grows out of, or is supported by the personal primary groups, such as one's family and one's childhood, adolescent, and adult peer groups, as well as by the ties to one's birthplace, neighborhood, or community of residence;
- (3) the degree to which the ties to chronologically earlier membership groups are not discarded or attenuated in favor of a commitment and attachment during one's life cycle; and finally,
- (4) the extent to which the membership collectivities to which one belongs represent or symbolize the main body of society and are infused with the prevalent values, norms, and beliefs (1961:759).

This focus on integrating group memberships and other linkages between the individual and his reference community corresponds with the commitment concept.

Wilensky (1961) related the life cycle concept to community integration by studying the extent to which people in occupations that may be said to be careers are more involved in their community life than those who have no careers (rather labels such as "burr knockers" on assembly lines). It was found that "even a taste of an orderly career enhances the vitality of participation: Compared with men who have chaotic work histories, those who spend at least a fifth of their work lives in functionally related work, hierarchically ordered jobs have stronger attachments to formal associations and the community" (1961: 521). Wilensky did not offer a general theory other than to note that

the effect of the division of labor on general social solidarity is a classic Durkheimian problem for the sociology of work. It might be added that the difference career patterning makes to community integration is a macro-level outcome of the operation of continuance commitment at the individual level.

Sociologists concerned with the stratification of society have contributed a wealth of terms that, it seems plausible, could be reduced to the commitment concept, except that stratification models tend to be static glimpses of the degree of commitment of the individual to the social structure. Status consistency (Goffman, 1957), status crystallization (Lenski, 1954), status congruency (Adams, 1953), and status equilibrium (Benoit-Smullyan, 1944) are all terms that, when applied to social or political movement participation, suggest only people with imbalanced scalar values (high education but low income) are likely to become involved in social movements. Since such terms regard the individual's reaction to his own status as inert, an additional term is needed to account for the comparison processes humans are constantly engaged in--relative deprivation (Davis, 1959; Morrison and Steeves, 1967; Morrison, 1971). The concept of relative deprivation makes possible dynamic considerations. Status self-satisfaction becomes contingent upon how one views where he has come from, where he is going, where his neighbors have come from, and where they are going. Status self-satisfaction is a constant but fickle problem, changing as the actor negotiates his status by the management of his commitments--renewing some, discounting others. Status self-satisfaction is a constant problem that is only periodically perplexing, especially

during those times when the evaluation of commitments becomes uncertain because of changing alternatives the actor may face--such as a social movement that suggests his life can be better, more moral, or heroic. If the basis of commitments is shallow or if commitments are few, status becomes a severe problem. Under such circumstances it is the process that avails the actor differentially to political extremism, not the static summary, which may be recalled at any moment.¹

The age component of the theory of generations as an explanation of social movement processes is not so much a theory about age differences per se as it is a special perspective on the strength of the social bond between the individual and the social structure. To say one is a certain number of years of age is to say (1) one has been exposed to social life for a certain duration, (2) one has most likely grown to a certain degree through everyday experience, and (3) one has a limited amount of time left to do whatever it is that humans do. In other words, to define one's age is to locate oneself, with respect to the social system of which he is a part, in several important respects suggested by the following generalizations: The older the actor, the longer the duration of time in the social system (Waisanen, 1969). The older the actor, the more likely copesetic adjustment to all relational systems has been made, i.e. integration of the individual into individual roles in the religious, political, economic, and social subsystems. The older the actor, the greater the material and psychic

¹ Social movements as well as social status are products of dynamic forces. Rush and Denisoff reviewed the applications of various "status upset" theories as applied to social movements (1971: 75-77).

investments in establishing and maintaining his contribution to and compensations from society. The older the actor, the less benefit likely to be gained from social innovations (because of the costs of disruptions in the relational systems to which adjustments have been made). The older the actor, the greater the accumulation of material and social resources. The older the actor, the greater the relative political power (due to membership in a class in which the majority of social wealth is held in stock). The older the actor, the fewer the status dominants, and the greater the number of status inferiors in the social structure to which he may compare himself. The older the actor, the greater the likelihood that new information will be mentally catalogued as repetitions of old wisdom rather than new information (half of the time he will be right).

The mechanics behind these hypotheses are captured by the commitment concept. Commitments differ in kind and degree throughout the life cycle. They increase in number as parental dependency withdraws, self-dependency grows, and, eventually, as the interdependence of affiliations with other people is accepted--the latter being a political compromise as well as a matter of convenience. The commitments increase in salience as the network of isolated commitments becomes interconnected. There is an increase in the relative costs and rewards of acting congruently or incongruently with respect to one's commitments. Finally, perception, analysis, and belief formation about the world known through one's commitments become aligned and objectified as isomorphic to reality as it exists independently of one's involvement in it. The changes in the degrees and kinds of commitments have

implications on the mode of political expression, as well as the orientation toward change likely to be favored by the actor. With more numerous and complex commitments, the adaptation to change is increasingly problematic. Younger people are free to be nonconforming and so express their idealism through innovative forms of organization and expression, while older people are progressively committed in ways that tend to depress the inclination to favor change and are oriented toward traditional forms of organization and expression.

Theory--Scope of Application

In the foregoing discussion of social movements, we specified the importance of public opinion formation and transformation for the purpose of legitimizing a particular operational indicator of social movements. Next, we reviewed the development of the idea of age differentials in political involvement from Mannheim to the present, and suggested a rationale for such differences as captured by the notion of varying levels of social "commitment."

Before moving on to the generation of specific hypotheses, the phenomena such ideas are intended to explain must be clarified. It was already cautioned that movements whose programs are specifically age graded, such as the Townsend Movement of the 1930's, constitute exceptions to the ideas presented. The focus is also limited to social reform movements occurring in an open, pluralist society. Several other general types of social movements would not be explained by the rationale under study here.

Linton defined the nativistic movement as "any conscious, organized attempt on the part of society's members to revive or

perpet

istic

occur

ture of

rather

such a

quo ante

because

which the

are not

younger

confusing

fication

nativistic

to Linton,

minority

available

Sub

sianic" and

a past or

Another var

as discussed

movements

preparation

ments would

ments stre

perpetuate selected aspects of its culture" (1943:230). Because "nativistic tendencies will be strongest in those classes or individuals who occupy a favored position and who feel this position threatened by culture change" (Linton, 1943:240), there is reason to believe that older rather than younger people would gravitate to such movements. Because such a reintegrative movement is concerned with strengthening the status quo ante, it is logically unsuited to the interests of younger people because it implies the perpetuation of a stratification system from which the young are excluded. Afro-American and Indian power movements are notable exceptions to the generalization that older rather than younger people will be drawn to nativistic movements. The problem is confusing in the context of a pluralistic society where several stratification systems may coexist. Insofar as the "main function" of certain nativistic movements is the maintenance of social solidarity, according to Linton, the use of nativistic symbols in ideology may be made by any minority power movement. There is clearly a persistent ambiguity of available terms and their implications that cannot be settled here.

Subtle variations of the nativistic movement are the "messianic" and "millennial" movements. Such movements invoke a dream of a past or future "golden age," which is predicted to spring forth. Another variety of this type of movement is the apocalyptic movement, as discussed by Festinger et al. (1956). These general types of social movements have in common the emphasis on individual reform and/or preparation for the future state of salvation. Religious reform movements would generally fall into such a category. Because these movements stress the internalization of problematic conditions, theories

such as the age/commitment theory which stress the relations between the individual and society, do not operate as specified. Under circumstances of deprivation, to which such movements have been attributed (Barber, 1941:663-664), the young would not tend to abandon the possibility that their control over their opportunity structure is foreclosed as much as would the old. At the same time, such movements stress the personal element of behavior modification, making it possible for involvement in such movements to take place without "threats" to other commitments, depending on the character of the suggested personal reform. Obviously, according to the commitment idea, young people would be in a better position to join Hare Krishna¹ than older people, but people of any age might attend Moral Rearmament or Christian Science meetings without threat to the character and process of their everyday lives. In consideration of such movements, the age/commitment idea becomes more relative than general.

Beyond these typological distinctions, a large number of problematic social reform movements remain; thus any theory so limited still has valuable social scientific applications. It would be the young, for example, who would play major roles during the growth of the civil rights movement, antiwar movement, women's liberation movement, and many other social reform movements over the last several years.²

¹A mystic East Indian cult that requires its disciples to shave their heads, abandon their material goods, and devote their lives to meditation and ritual chanting.

²Data are available to study these movements; however, because these movements are drawn out over a considerable period of time, many additional complexities are introduced that are beyond the scope of theory under examination here and would make them less well suited as phenomena with which the ideas presented here can be evaluated.



Two analytical specifications should be made about the phenomena that would be appropriate to address with the age/commitment theory. First, the degree of departure from the dominant culture that a movement program suggests would be expected to influence the extent to which the young are differentially involved in the movement. The more radical the departure from the dominant culture, the greater the importance of lack of social commitment, and the greater the probability of social movement recruitment from the younger members of the population.¹ Second, when applying the age/commitment notion to any given movement, special attention must be paid to the time period in question, both in terms of the overall duration of the movement and the stage of the movement at a particular point in time. Since movements are dynamic events, they are composed of different mixes of people with different demographic characteristics at different points in time. Any movement must always be considered relative to the changing pattern of this mix. Age, unlike race or sex, is hypothesized to vary in a predictable fashion for all social movements within the previously defined scope of application.

It should be kept in mind that the age/commitment theory offered is not regarded as an explanation of the entire variance of characteristics of people who take special interest in various social movements. These ideas capture only a minor portion of the variance

¹The environmental movement did not generally pose a great threat to the dominant culture. While some groups within the movement entertained radical programs, they did not gain a high profile. Age differences among people involved in this movement would be expected to be less than in other movements, and to that extent this particular movement constitutes a rigorous test case for the theories in question.

in membership in the civil rights movement in comparison to the single variable of race (or sex, in the case of "women's liberation"). Ceteris paribus, that is, controlling for such obviously powerful conditions, age is hypothesized to continue to account for social movement membership; e.g. the civil rights movement can be shown to be composed of young black people (cf. Bell, 1968:77).

The following chapter applies the age/commitment theory to the known diffusion characteristics of social innovations as a model of social movement transformation. This exercise leads to a number of empirically testable hypotheses, which are now taken up.

CHAPTER III

HYPOTHESES

Although the basic arguments for the theory of generations have been put forward with respectable eloquence by Heberle and Mannheim, they are too vague for direct empirical specification. To elaborate the general hypothesis that there is a direct, monotonic, decreasing relationship between age and social movement sentiment, we must draw upon two additional works dealing with age, generations, and change proneness (Carlsson and Karlsson, 1970) and the diffusion curve (Rogers and Shoemaker, 1972).

From studies of geographical mobility, occupational mobility, and change in party identification, Carlsson and Karlsson (1970) constructed a curve representing the differential change proneness of different age levels. This hand-fitted curve is intended to suggest how changeability decreases as age increases (see Figure 3).

Rogers and Shoemaker (1971) offered a curve they found representative of the findings of the majority of research on the diffusion of innovations. This curve, according to the authors, reflects the increasing proportion of a population that adopts an innovation over time. Once 15 percent of a population has adopted, the chances for complete or nearly complete adoption are multiplied (see Figure 4).¹

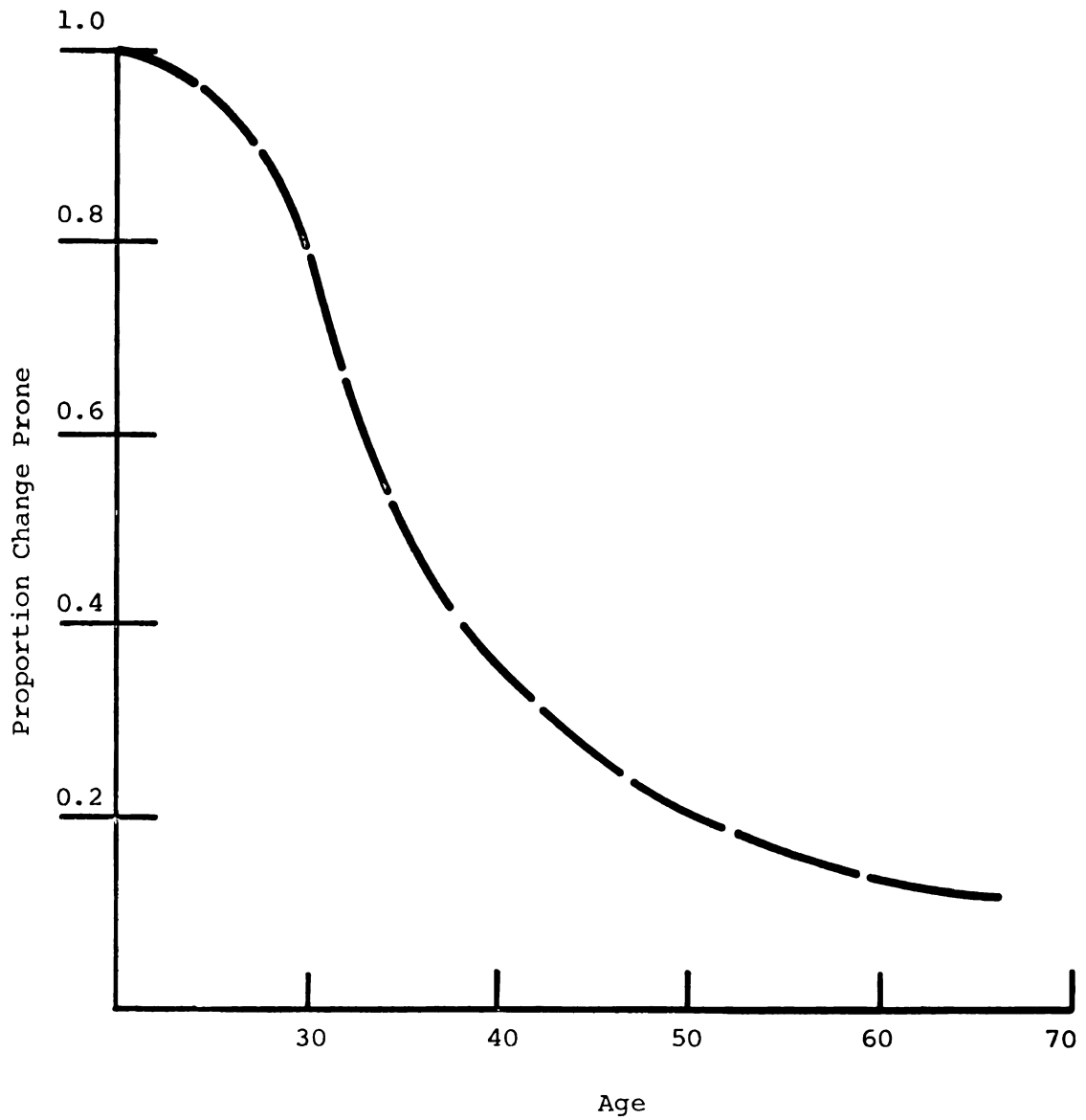
¹Both Figure 3 and 4 are approximate generalizations that tend to oversimplify the available data; e.g. diffusions rarely achieve

1.0
0.8
0.6
0.4
0.2

Proportion Change Prone

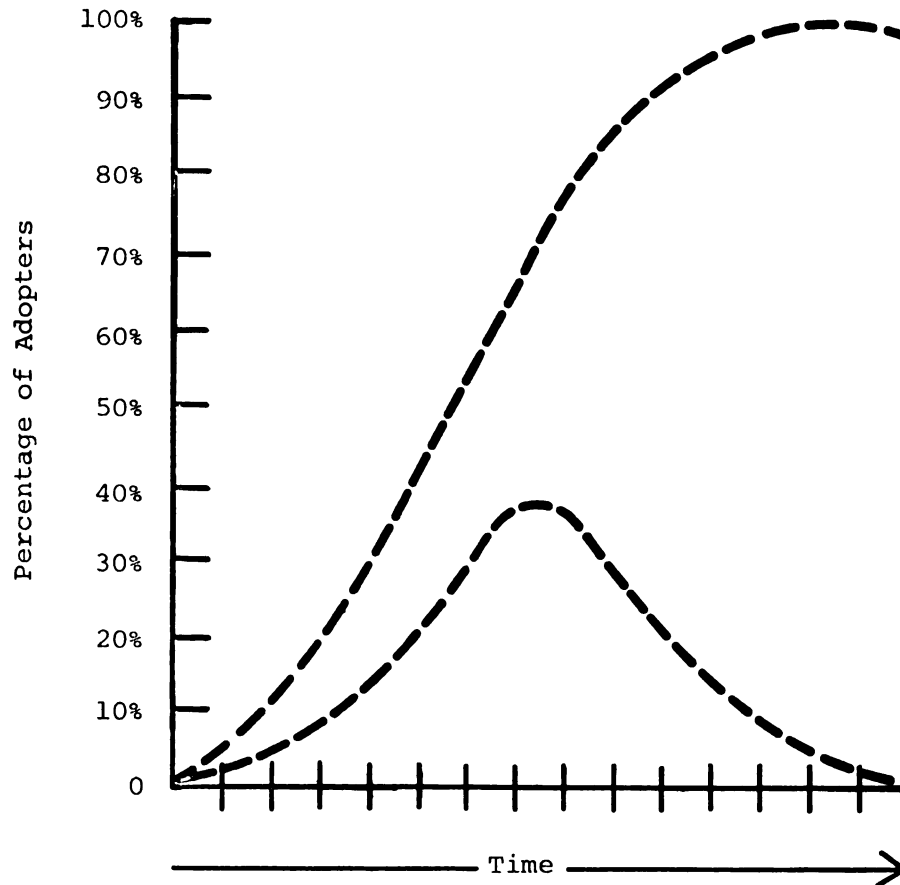
Scu

Fig



Source: Carlsson and Karlsson, 1970:714.

Figure 3.--Model curve for the dependence of change proneness on age.



Source: Rogers and Shoemaker, 1971:177.

Figure 4.--The bell-shaped frequency curve and the s-shaped cumulative curve for an adopter distribution.

Combining the differential expectations of change proneness (Figure 3) with the diffusion curve (Figure 4), it is possible to generate a series of simultaneous curves that correspond to the expected adoption rates, over time, for different age levels.

Considering Figure 3 from the perspective of the dynamic conditions reflected in Figure 4, it seems likely that the single curve offered by Carlsson and Karlsson might reasonably be modified to reflect the changing risk/uncertainty factors that occur as the "innovation" matures and becomes more commonplace. Such a modification is strongly suggested when approaching the problem from the standpoint of "social movement" literature, which places crucial importance on the dynamics existing between the "movement" and the public at large (cf. Zald and Ash, 1966). Figure 5 reflects this modification.

For any age, the point on the curve (A, B, or C) represents a rough probability factor that people in that category might adopt an innovation. Curve A represents the chance factors early in the life of the innovation, and Curves B and C represent chances during later stages. (No empirical meaning is suggested for the numbers on these figures; they are included for illustrative purposes only.)

Now consider Figure 4 from the perspective of the modified change proneness curve(s) shown in Figure 5. According to the age-by-age probabilities suggested by Curve A, a sampling of early adopters should be dominated by younger people. Samples of adopters by the

100 percent adoption (Figure 4) and people of a certain age are rarely 100 percent changeable with respect to a given topic.

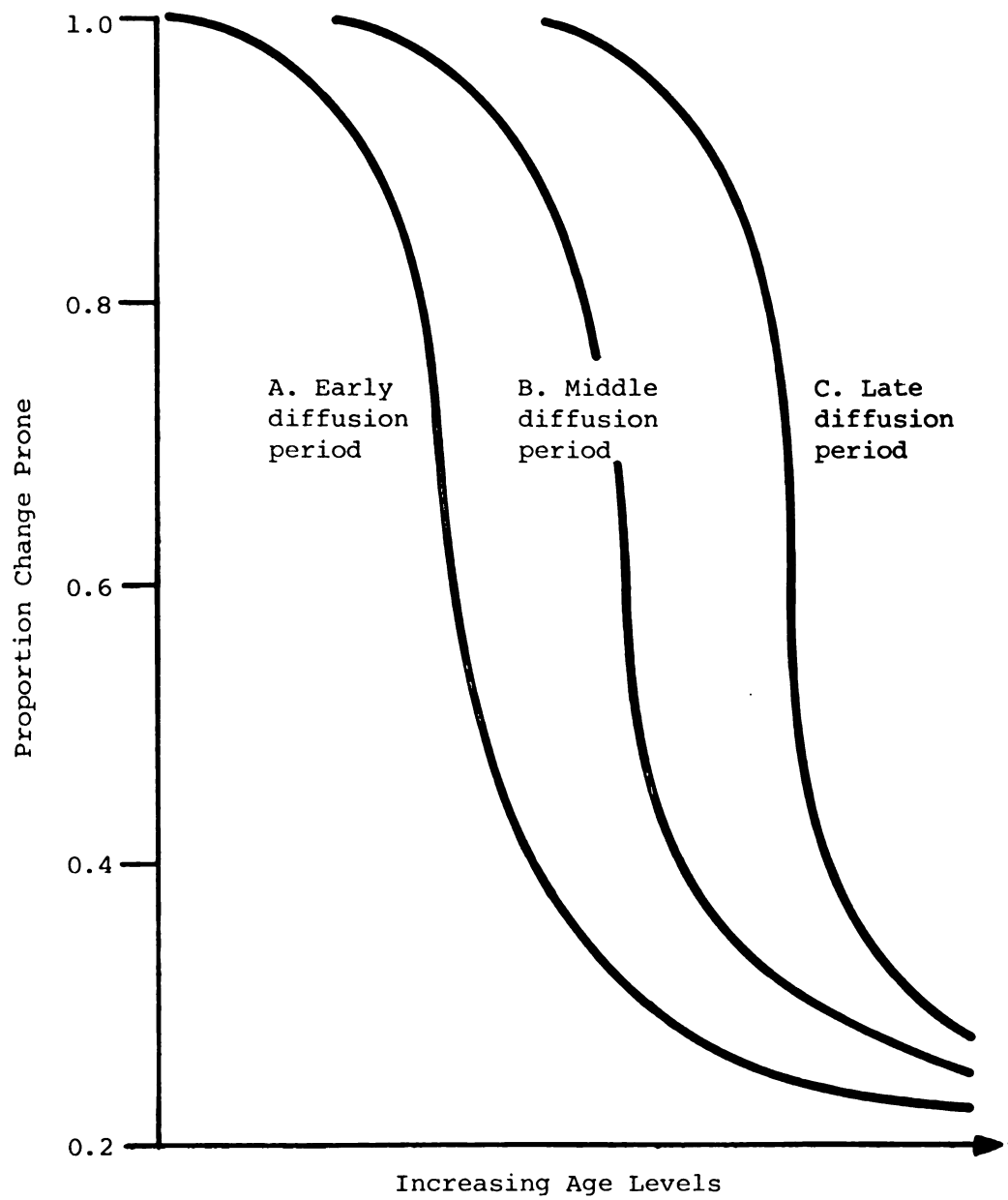


Figure 5.--Curves reflecting the changing age-by-age change proneness at different stages in the diffusion process.

middle period of diffusion should grow to include older people, according to Curve B. Late in the diffusion, still older people are included. (Age-by-age probability factors are not shown for a point in time where complete adoption of an innovation occurs. This is an unlikely event in the case of social movements, and undoubtedly more complicated than this simple model can reflect.)

Figure 6 is a reconstruction of the cumulative curve for adopter distribution considering the age differences as discussed above. Note that as the innovation matures, age makes less of a difference since more people fall under the higher probability factors of Curves B and C (Figure 5).

This exercise serves well enough to illustrate age differentials in the adoption of innovations (or social movements) and the convergence of those differences over time. What this does not illustrate is that fads, social movements, and even innovations seem to decline after a fashionable period of high visibility. Here we can draw from no research reflecting the differential tenacity of respective age levels over time, although some anecdotal evidence exists in the area of social movement literature to suggest young people tend to skip easily from movement to movement. Figure 6 departs from the idealized state of affairs represented in Figure 4. The downswing reflects known changes in the environmental movement, but otherwise is unchanged (age differentials are still converging). The downswing does reflect additional differences by age in consideration of differential rates of attrition, the younger, rapid adopters also being the group that most rapidly abandons the movement after it peaks.

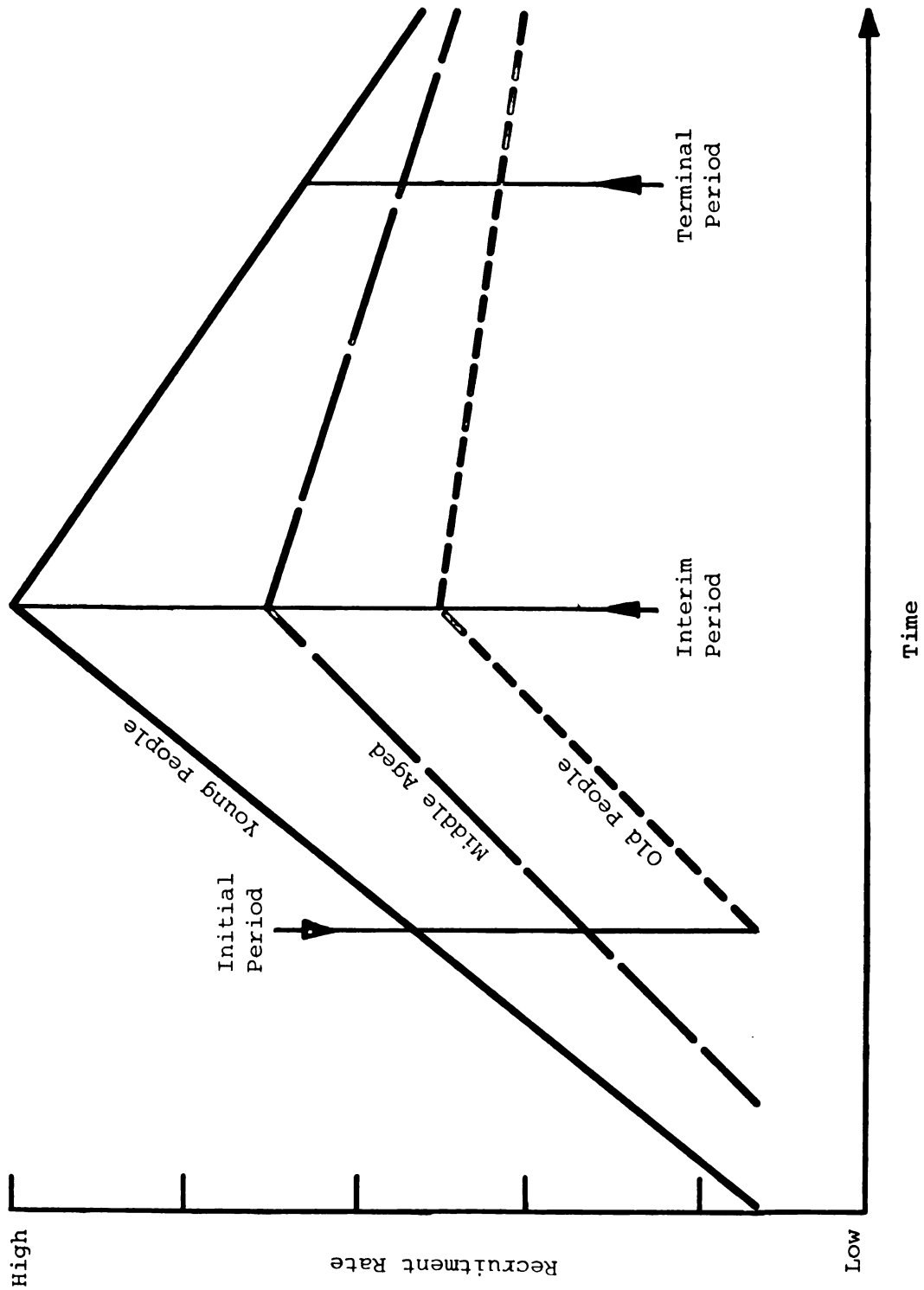


Figure 6.--Hypothetical age differentials in social movement recruitment rates over time, assuming equal initial starting points.

The assumption reflected in Figure 6 is that all groups begin to adopt from the same level (zero); e.g. at some point in time there are no adopters. Differences that come to exist between age levels are differences attributable to the time lags associated with the onset of initial adoption and the rate of subsequent adoption.

The alternative assumption is that the initial point of departure is age stratified. This is reasonable, given that a "cause" without a constituency hardly seems imaginable. In the case of the environmental movement, a sizable conservation-naturalist interest group has been active for over a century. The age composition of such groups is typically 35+, suggesting that the early period of this movement might be characterized by middle-aged people rather than by the youth. Old people (postretirement period), although they do retain some voluntary association memberships, tend to engage more in retirement interests. They are hypothesized to rank second but ahead of youth, who are viewed as either uncommitted and not inclined to "grouping" into traditional voluntary associations, or engaged in family and career building. For these reasons, the initial rank order is expected to be middle-aged adopters leading, followed by older people and the youth.

Given the age differentials in change proneness, a somewhat more complicated picture emerges (see Figure 7). The figure gives a rough approximation, because there is no theoretical or empirical reason for judging the distance between the curves in the abstract. Whether the curves will cross or not is largely an unknown, although

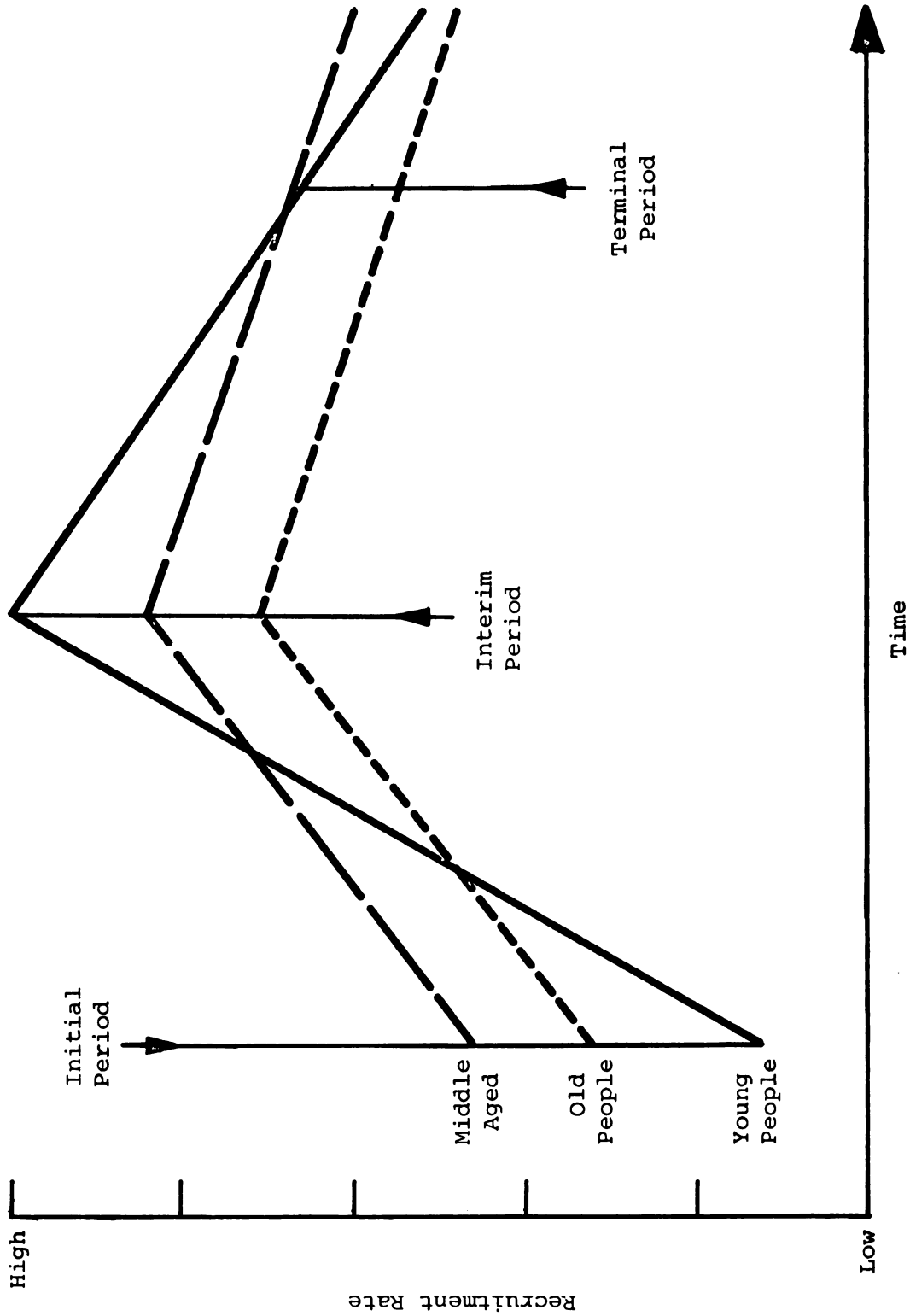


Figure 7.--Hypothetical age differentials in social movement recruitment rates over time, assuming stratified initial starting points.

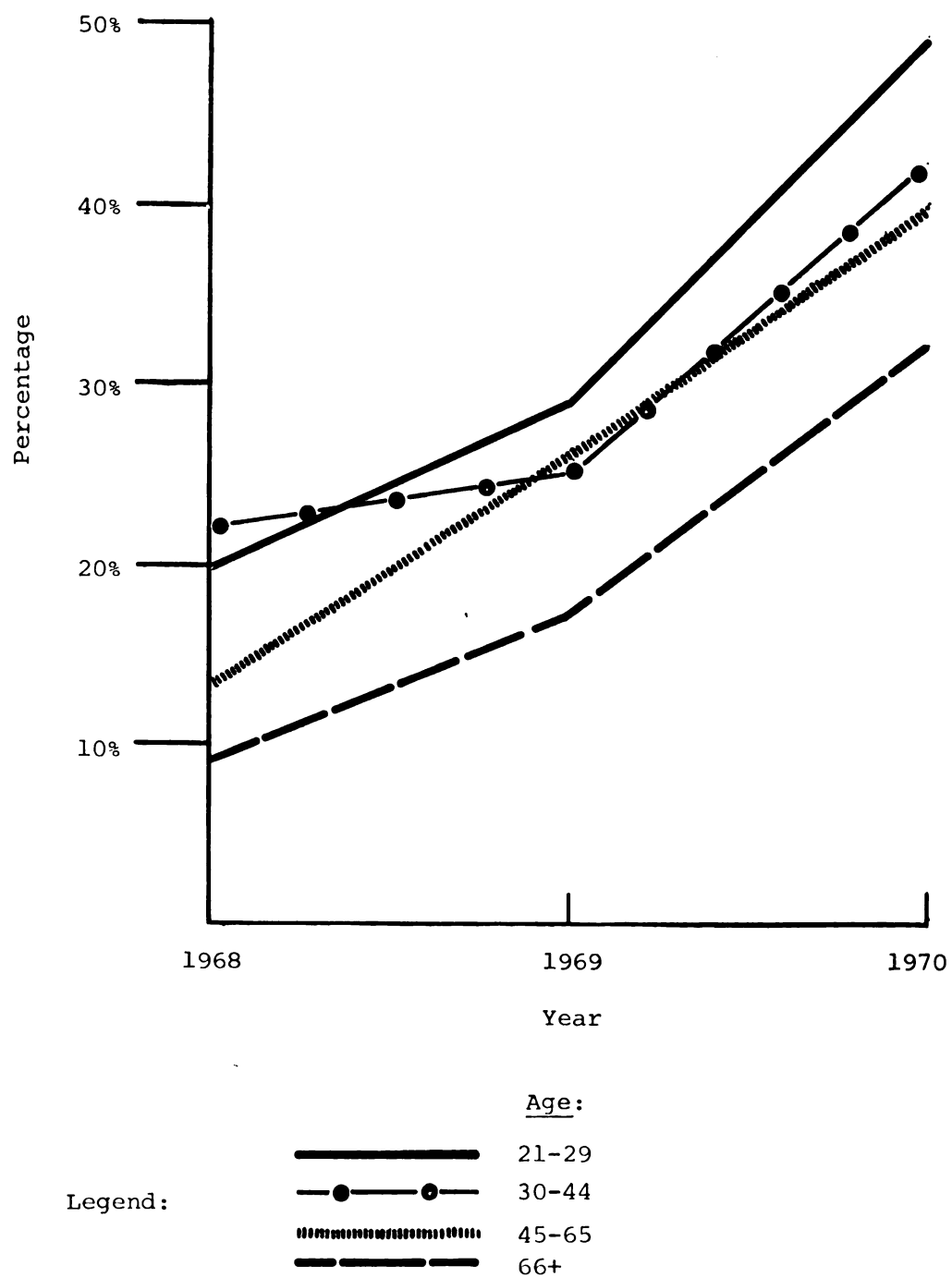
Buttel did find such a configuration in his study of Wisconsin residents (1972) (see Figure 8).

Several stages of the environmental movement have been noted (Morrison et al., 1972; Morrison, 1973), which are suggestive of the rank orders by age that are likely to be found during subsequent periods:

1. The year 1968 was a time of growing interest among existing conservation and naturalist groups but preceded widespread media attention following the St. Barbara oil spill in 1969 (Munton and Brady, 1970).

2. In 1970 there was a period of rapid mobilization among young people, especially students on campuses hosting an Environmental Teach-In. New movement organizations proliferated, and the ranks of traditional organizations swelled. "Institutional movement organizations" developed as a wide range of bureaucracies (departments of agriculture, natural resources, universities, legal agencies, etc.) came to realize their opportunity to fulfill organizational goals by building programs oriented toward the spirit of excitement in the public at large. Among the public the emphasis was on participatory ecology, and the movement appeal was purely a "mass" invitation to join ranks.

3. By 1972, many new organizations had disappeared and some of the older groups had overextended themselves financially, not expecting the losses of members that were almost as large as their gains. The activity of the movement changed from participatory ecology (riding bicycles and recycling bottles) to litigation and research. The remaining strength of the movement changed locus from the "masses" to the



Source: Buttel, 1972:45.

Figure 8.--Percentage of respondents identifying air and water pollution as one of two major problems facing Wisconsin.

institutional movement organizations and traditional conservation and naturalist interest groups that survived. It is widely believed, however, that the impact of the movement on young people was deeper than their retreat from active movement participation would indicate.

In light of these impressions of the stages of the environmental movement, the rank orders of ages recruited into the movement would be predicted to favor the youth during the middle period but revert to the middle-age groups during the later period (Figure 8).

In the following discussion, the rate of the occurrence of an event in a defined social group is the dependent variable we want to explain. The event with which we are concerned here is interest in environmental problems. The ratio of people reflecting such interest to those not showing an interest is called environmental bias. If all people in a defined social group are interested in environmental problems, the environmental bias of the group is unity--1.0. If only ten out of one hundred people are interested in environmental problems, the environmental bias of the group is 0.1. The indicator, therefore, amounts to an aggregated index based on the sum of individual reactions to the measurement devices taken collectively for defined social groups.

As Ryder has noted, "The properties of distributions of variables are specific to populations rather than to individuals." In the present study of the environmental movement it is the population involved in the social movement that is of analytical interest (see Ryder's discussion of microanalytic and macroanalytic levels of inquiry, 1964:458-460).

According to the orbital model, environmental bias is highest among the attentive public, which is composed of promovement (nearest the core) and antimovement (nearest the periphery) elements. Environmental bias may be divided, therefore, into proenvironmental bias and antienvironmental bias.

The foregoing discussion and related figures may be summarized by the following hypotheses:

- Hypothesis 1: The gross transformation of proenvironmental bias over time (for all ages) will be characterized as an increasing monotonic curve during the movement's emergence and diffusion, to some point in time (in the present case around Earth Day, 1970), after which it decreases, stabilizing below its highest level and above its lowest level.
- Hypothesis 2: Proenvironmental bias will be stratified by age.
- Hypothesis 2.1: Proenvironmental bias for the initial period of measurement (1968) will be highest among the middle-aged, lowest among the youth.
- Hypothesis 2.2: Proenvironmental bias for the interim period of measurement (1970) will be highest among the youth, lowest among the aged.
- Hypothesis 2.3: Proenvironmental bias for the final period of measurement (1972) will be highest among the middle-aged, lowest among the aged.
- Hypothesis 3: Differences among age groups in proenvironmental bias will tend to diverge prior to reaching their apex, after which point they will converge over the duration of the movement.
- Hypothesis 4: For each age group, the initial level of proenvironmental bias will be lower than the final level.

The above-stated hypotheses involve only proenvironmental bias. However, both the orbital theory and historical experience with other social movements make it plain that a substantial level of antienvironmental bias can be expected from the period under consideration.

Proenvironmental bias tends to be goal and future oriented. Early in the course of the environmental movement, several important legislative objectives were realized, especially the enactment in 1970 of the National Environmental Policy Act (PL 91-190) and the Environmental Quality Improvement Act (PL 91-224). The development of anti-environmental bias may be seen as a reaction to the early successes of the movement. Such bias tends to lag the development of the social movement itself. Although resistance to the environmental movement existed from the start (especially from the automotive lobbies), it was during a somewhat later period that antienvironmental bias gained substantial general public support. A much wider base of antagonism developed as the costs of economic dislocations became publicly recognized. Antienvironmental bias involves the paradox that people may be sympathetic to goals of the movement but emphatically reject means that hasten those goals or ramify directly on their own lives (Dunlap, Gale, and Rutherford, 1971). The difference between pro- and antienvironmental movement bias was captured by Herzog's (1949) study of splits of opinion over questions dealing with issues of special interest to the United States government. She observed:

It was found repeatedly that those who reported in favor of a program or policy tended to speak in terms of the objective: the ends to be served, the needs to be met. The opposition, on the other hand, tended to voice objections to the means proposed, insisting either that these would not achieve the objective or that their concomitants and results would be so bad as to offset any possible gains--or both.

In contrast to proenvironmental bias, antienvironmental bias may be characterized by a focus on means and present conditions without necessarily objecting to the goals of reform. Similarly, as reactions to

the antiwar movement and school desegregation efforts of the federal government, the support for gradual withdrawal from Viet Nam and the antibusing movement may be seen as public reactions to the means necessary to implement otherwise unobjectionable ends.

The development of antimovement bias involves social processes that are quite different from those associated with the emergence of proenvironmental bias. While the spread of popular enthusiasm for environmental reforms enveloped the public mind with incredible haste (in social time, not necessarily chronological time), antimovement sentiment has developed more gradually. While the growth catalysts of promovement sentiment are public enthusiasm and mass media endorsement, antimovement sentiment springs from a combination of ideological opposition and negative reactions to the costs of reform, which slowly surface. To many people, the early accomplishments of the movement were interpreted as the passage of poorly written legislation, awkward administrative efforts to carry out the spirit of the legislation, and the unforeseen side effects of the strategies of reform that followed. Although the movement was successful at enlisting large numbers of supporters, it was also successful at creating antagonism from the same public pool and by the same feats. As the movement ideology moved from abstraction and slogan to application and problem resolution at a concrete level, profound changes occurred in the composition of the attentive public (see Morrison, 1973). The movement tended to change from consensus to confusion as ambiguity increased over the costs and benefits of the goal of a clean environment. Confusion gave way to conflict group formation as corrective action to reduce pollution served

to fix costs on specific groups, such as certain industries that were forced to curtail production, install costly equipment, relocate their factories, or close down altogether.

Typical of the emerging conflict of interest is the 1973-1974 energy crisis. This situation has been interpreted by many commentators and industrial spokesmen to be the "fault" of environmentalists whose efforts to block the trans-Alaskan pipeline by court action are viewed as a partial cause of the energy crisis. Such a view is likely to have gained a respectable level of public endorsement in spite of the fact that, had the development proceeded at its proposed rate, it would not have been operative in time to ease the problem. Such arguments against environmental reform become increasingly creditable in the skeptical climate of the 1972-1974 period.

While there is reason to believe the young will be especially caught up with the proenvironmental bias, the same reasons suggest that the aged will be more characterized by antienvironmental bias. Not only might it be expected that the ramifications of environmental control legislation will fall more heavily on people of older age status (job retraining is more problematic for them, and they are also threatened by premature retirement), but also there is reason to believe that older people will gravitate to a view of the world that makes the apparent benefits of environmental reforms much less certain and desirable.

Older people are more likely to be skeptical and antagonistic to environmental ideology, possibly because of greater tendencies toward conservative political outlooks, prodevelopment, or laissez-faire

economic preferences. As Albrecht (1972) pointed out, antienviromental bias is likely to be characterized by utilitarian values rather than aesthetic considerations, which motivate many environmental reforms. The penchant for older people to prefer utilitarian values while younger people prefer aesthetic and moral values has been cited as a fundamental difference by which to account for variations in political style (refer back to page 38). Older people are less likely to be caught up in what may seem to them little more than an outburst of periodic public concern for resource management which had been plagued in earlier times with no small amount of difficulty--from the Pinchot-Ballinger controversy, through Teapot Dome, to the Dixon-Yates affair (a thorough review of conservation history is covered in Part II of Burton and Kates, 1965).

Essentially, while the movement offered something new and noble to young people, it offered something old and controversial to older people, in spite of the effort of movement leaders to establish a uniqueness in the "ecology" and "eco-system" rhetoric. The differential reactivity of people of different ages to the antienviromental bias assumes a unique pattern over time. Newness and enthusiasm may wear down, leading us to hypothesize a decline of support for both pro- and antienviromental bias among the young. This is obvious enough for young people with proenviromental bias, but for young people with antienviromental bias it might be pointed out that sufficient reinforcements (peer and primary group support) are not present to permit continued resistance to the promovement perspective. As people of higher age levels are considered, however, the likelihood that skeptical

political
recollect
only serv
also woul
is not ea
certain f
mitted to
more to
the age

bias be
time? th
same fig
by age
curve wit
resistanc
that. On
ized by

bias can

political
people an
and peer

of develo
Unfortun
available
over whic

political evaluations, negative reactions from economic effects, and the recollection of historical problems of environmental reforms would not only serve to make antienvironmental bias a more likely perspective but also would make that position a rather firmly established attitude that is not easily eroded. While recruitment to a promovement outlook has certain faddish characteristics (even among those who are apparently committed to the movement), recruitment to an antimovement outlook tends more to be charged with a syndrome of supportive rationales.¹ The older the age level under consideration, the more this tends to be true.

Given the development of antienvironmental bias, how will such bias be distributed across various age levels? How will it change over time? The simplest answer to these questions may be derived from the same figures presented earlier, only in reverse. While the change prone by age configuration (Figure 4) may be described as a backward S-shaped curve with high change proneness characteristic of youth, the change resistant by age configuration may be hypothesized as the opposite of that. Change resistance is the greatest among older people, characterized by an S-shaped curve that diminishes toward the lower age levels.

Expectations about the characteristics of antienvironmental bias can be summarized as follows:²

¹Glenn and Grimes (1968:574) noted that as people grow older, political influences become interpreted via consistent schemes. Younger people are less inclined to resolve discrepant conditions (of parental and peer group political values).

²It was not until our 1970 period of measurement that the scope of developing anti-environmental bias would be expected to develop. Unfortunately, the empirical indicator of antienvironmental bias is not available in 1968. From the standpoint of an adequate spectrum of time over which to capture the movement and countermovement, a study design

Hypothesis 5: Antienviromental bias will be age stratified.

Hypothesis 5.1: Antienviromental bias for the interim period of measurement (1970) will be highest among the aged, lowest among the youth.

Hypothesis 5.2: Antienviromental bias for the final period of measurement (1972) will continue to be highest among the aged, but will decrease among the youth.

Hypothesis 6: Differences among age groups in antienviromental bias will tend to diverge over the duration of the movement.

Hypothesis 7: For younger age groups, the initial level of anti-environmental bias will be greater than subsequent levels.

Hypothesis 7.1: For older age groups, the initial level of anti-environmental bias will be lower than subsequent levels.

that ends in 1972 can represent only the beginning of antienviromental sentiment. It would be desirable to be able to report and consider data for 1974; however that effort will have to be deferred to future research. The hypotheses are written for the 1970-1972 period only, and do not reflect as complete a picture of the "life cycle" of anti-movement bias as has been attempted for the promovement bias.

CHAPTER IV

METHODOLOGY

Data

Available sources for the particular indicator desired (MIP-type question) are limited. The MIP-type question has been developed in several different forms, not all of which are acceptable for methodological reasons. (See Appendix B for further details of differences attributable to question format.) The data must also be available for a period prior to, during, and after the most active period of the movement.

The Inter-University Consortium for Political Research included an MIP-type question of the desired form, covering the period 1968 through 1972, well before and after the highest visible activity of the movement that occurred during "Earth Day," April 22, 1970. The data were originally collected by the Center for Political Studies of the Institute for Social Research at the University of Michigan, under a grant from the National Science Foundation. Neither the original collectors of the data nor the Consortium bears any responsibility for the analysis or interpretations presented here.

Items collected from the 1968, 1970, and 1972 National Election Studies constitute the specific data for this study. Individuals interviewed in these surveys form a probability sample of citizens of voting age (21 in 1968, extended to 18 in 1970

and 1972) living in private households in the contiguous United States. The sample is representative of the four major regions of the country (Northeast, North Central, South, and West). The 12 largest metropolitan areas of the United States were drawn with certainty. The remainder of the sample selection technique was a stratified proportional random sampling (described in detail by Kish, 1964). Excluded were people living in group quarters (barracks, dormitories, rooming houses, fraternities, etc.), institutional populations (hospitals, convents, homes for the aged), and people with no place of residence. Such sampling limitations tend to suppress the incidence of younger and older people, i.e. people living in retirement centers and students in group living arrangements.¹ The surveys were all of the interview type, occurring during the last quarter of the survey year or within the first two months of the following year.

Composition of the National Election Studies by year was as follows:

1. 1968 National Election Study, N = 1,673, collected September-December, 1968. Only the cross-section subsample was used, N = 1,557. The Black supplement accounts for the difference, N = 116.

2. 1970 "Off Year" National Election Study, N = 1,694, collected November, 1970-January, 1971. Only the cross-section subsample was used, N = 1,580. The Black supplement accounts for the difference, N = 114.

¹See Appendix E for a comparison of U.S. Census and National Election Study age representation for 1970.

3. 1972 National Election Study, $N = 2,705$, collected December, 1972-February, 1973. The required data were contained only in the Form II interviews for which both pre- and postelection interviews had been conducted, $N = 1,072$. Eliminated were Form I ($N = 1,372$), mail questionnaires ($N = 37$), and respondents with only pre-election interviews ($N = 224$).

Operationalization

Dependent Variables

The dependent variable is environmental bias, which includes both pro- and antienvironmental bias toward the movement ideology and reform programs. Environmental bias is a quality of the "attentive public" of the environmental movement. Although environmental bias is defined as a level of concern that is closely associated with movement organization membership, contributing and other supportive behaviors (or derogative behaviors in the case of antienvironmental bias), it should not be equated with membership in the core of the movement itself.

Because the media content during the relevant period was heavily proenvironment, there is reason to believe many conventional forms of questions would be likely to prompt overwhelming endorsement from the general public once cues to the subject matter are presented to the respondent. The "attentive public" would be inextricably buried in the midst of consensual data gathered by most types of questions. The operational problem was to measure the "attentive public" in a manner that accomplishes the following: avoidance of normative

response bias, sensitivity to both pro- and antienvironmental bias, and separability of both pro- and antienvironmental bias in data produced. The operational problem was best resolved within the limits of available data by the use of two indicators--the "most important problem" item and the "pollution scale" (hereafter MIP and PS will be used).

Positive environmental bias that is relatively unbiased by normative responses is indicated by the data produced by the general open-ended question: What do you think is the nation's greatest problem? This question elicits the social conditions foremost in the minds of the respondents as they consider the nation's problems. The item occurs early in the interview schedules that are oriented to a wide variety of personal, social, and economic issues. There is nothing in the context immediately preceding the question in any year that might bias the response toward any particular problem. However, it is made clear that the question is interested in the respondent's opinion about the problems of the country at large, as opposed to local and personal problems. The structure of the question is identical in 1968 and 1970: "What do you personally feel are the most important problems the government in Washington should try to take care of?" It is conceivable that the "government in Washington" element might act to suppress opinions from people of a conservative frame of mind. However, considering the slightly higher rate of EMIP interest among Republicans in the present study (see page 180), this possibility is not viewed as a bias on the present research interests. In 1972 the question is reduced in form to "What do you think are the most important problems facing this country?" In

that year the question follows questions probing personal problems, but is not believed to be confused with that level of consideration. The two styles of wording, however, are believed to produce equivalent results.

Positive "environmental bias" results from the respondent's naming of one or more of the following as the MIP: population increase, birth control, conservation of natural resources (forests, parks, wildlife, minerals); ecology problems; prevention of water and/or air pollution; pollution; environmental problems; other references to "natural resources."

It should be noted that although the MIP-type question seems to be an adequate dependent variable for this study, this indicator is not necessarily claimed to be a general indicator of social movements. The many different kinds of responses that may result from the MIP question include nascent social movement concerns as well as conventional everyday issues such as crime, inflation, and other issues that do not become the focus of social movements. We do not know enough about this particular indicator to assess its promise or limitations. However, such criticisms as have been offered are clearly too superficial to resolve the issue at this point (see Appendix B for a discussion of some of the criticisms of the MIP-type question in its earlier applications).

Negative environmental bias that is uncontaminated by normative response sets is indicated by responses to the PS type of question. This item is a seven-point scale on which the respondent ranks himself with respect to two extreme attitudes. The respondent is prepared for

the choice by the following orienting statement: "There are many sources of air and water pollution; one of them is private industry. Some say government should force private industry to stop polluting. Others believe industries should be left alone to handle these matters their own way. Given these two approaches" The extreme favoring the idea that "industry ought to be forced to stop polluting" may be equated with proenvironmental bias. (This extreme includes PS values 1, 2, and 3.) This position is subject to bias, because the climate of the times would suggest to most people that PS 1-3 are the "proper" answers to this item. The other extreme, favoring the position that "industry ought to be allowed to handle its own problems," may be equated with antienvironmental bias. (This extreme includes PS values 5, 6, and 7.) This end of the scale constitutes an indicator of anti-environmental bias. It is not distorted by normative response bias because of the relative "deviance" of this perspective from the fervor of the period. (For a comparison of the two indicators, see Table 8, p. 109).

It is believed that people who mention EMIP are those who are in sympathy with the environmental movement. It is possible, however, that some of these people would be hostile to the movement and name EMIP, but for quite different reasons than we attribute to sympathetic people. The availability of both an MIP and a PS indicator for each respondent enables the direction of affect to be determined as a partial validity check (other validity checks are introduced with the findings). Together, the MIP and PS items provide an accurate indicator of the "attentive public." Although the MIP item is subject to contamination by the inclusion of antienvironmental sentiments, this bias can be

determined and corrected as necessary. PS values 1, 2, and 3 include a strong normative bias, but we still have a clear picture of the pro-environmental public from the MIP item. PS values 5-7 provide a relatively unbiased estimate of the antienvironmental public.

In the course of discussing the findings of this study, the MIP and PS questions are combined to demonstrate the orbital effect of opinion stratification discussed in the theory chapter. That effort further serves to put in perspective the relationship between these two different but related measurements.

Independent Variables

The central theoretical problem focuses on the effect of the independent variable--age. Age is exactly coded in all of the surveys. The reliability of disclosures of age is high (cf. Hyman, 1972:258, n1).

Recognizing that age differences also entail differences in education and income, those variables are also examined in conjunction with age to determine the extent of their influence.

The education variable is the number of grades the respondent has completed. Low education includes grades 1 through 12 as well as noncollege training and business college. Medium education includes some college, Associate of Arts degree, or other junior college training. High education includes Bachelor's degree, Master's degree, Ph.D., and related higher degrees.

Consciousness of environmental problems is also subject to the indirect impacts of environmental control legislation. Such legislation prompted economic impacts on industrial activity, which increased in 1972. While the scope of this impact is unknown, it is felt to be

an important determinant of environmental awareness (cf. Morrison et al., 1972; Morrison, 1973; Albrecht, 1972). In an attempt to measure this suspected impact, a list was developed consisting of occupations that might be considered "losers" because of economic threats prompted by environmental reforms¹ or "gainers" because of heightened private and government interest in environmental issues.² This determination was made from the Census Industrial Classification of the respondent's occupation and with the help of several publications that describe economic displacements resulting from or threatened by environmental problems with industrial causes (U.S. Senate, 1971; Council on Environmental Quality, 1972; Institute of Industrial Relations, 1972).

Other independent variables are introduced to determine the possibility of unanticipated exogenous variables. These include: sex, race, where raised, where living, region, political party identification, and liberal-conservative outlook. Specific codes for these variables are given in Appendix C.

Analysis

It should be kept in mind that this study is based on secondary analysis of survey data and a time series analysis. The efforts of Hyman (1972) and Glenn (1970) were priceless guides, inasmuch as

¹Forestry; metal, coal, gas, and petroleum mining; logging, wood-related mill work; metal foundry and mill work; iron, steel, and nonferrous metal industries; motor vehicle and motor vehicle equipment industries; paper, paperboard, and pulp mills; petroleum refining; gas and petroleum pipe lines; electric light and power; gas-electric utilities.

²Legal, medical, and other health services; educational services.

many of the problems encountered in the course of this endeavor were forewarned in their works. Although most of these problems are of such a routine nature that they need not be brought to the attention of the reader, at least one caveat is not resolved and should be recognized. The main interest of this time series study is the biannual fluctuation of EMIP rates of mention. We know everyday events serve to alter the significance of environmental issues (as well as any other issue). Even the hard-core "eco-freak" may be momentarily distracted by the local news program highlighting other matters. Similarly, the most capricious trifler can be temporarily turned into a champion of the Earth. The problem is the unknown variance introduced by day-to-day events and the necessity of collecting data over a narrow spectrum of time. "Unfortunately," as Glenn pointed out, "the variance of the short term fluctuation of such behavior is not known, and therefore there is no precise way to take this variance into account when trend data are analyzed" (1970:89). The problem is reduced in the present case, we feel, because the three-to-four-month spread over which the interviews took place had the effect of randomizing the variance. The interviewing period itself occurred over a period amounting to an ebb of environmental activity, during the late fall and early winter months, suggesting that the possible day-to-day variations would be less than during periods when pollution problems might periodically draw much public attention, i.e. during the summer months.

One of the major barriers to analysis is the known nonlinear characteristic of many independent variables distributed by age and the strong suspicion that, in a time series analysis, even that nonlinear

configuration will be meta-stable from period to period. Additional problems result from the necessity to deal with variables that elicit either a relatively small subsample size (the MIP-type question) or a very large subsample size, with many cases loading on a single value of the variable (PS value 1 accrues 52 percent of the responding subsample). Such limitations serve to reduce the available stock of elaborate statistical devices by which to reduce and simplify the findings. Fortunately, the clarity of the findings is amenable to the remaining, more precise, tabular and graphic methods of analysis.

CHAPTER V

FINDINGS

The Social Context of the Environmental Movement as Indicated by Related Research

In the introductory chapter we mentioned the existing empirical research that focuses on environmental attitudes, and pointed out the reasons why the utility of that information is inadequate for the research question of understanding the changing character of the environmental social movement. This chapter begins by summarizing the findings of the earlier research, so that the contribution of earlier research findings can be compared to the findings to be discussed later in this chapter, with respect to content and methodological soundness. The comparative evaluation is undertaken in the final chapter.

The most comprehensive review of various indicators of environmental interest was provided by Erskine (1972). Unfortunately, that effort focused exclusively on the variety of opinion expressions and their ecological distribution (with respect to locale and size of place), to the exclusion of basic demographic characteristics. From Erskine's review of the polls, we see that environmental concern could be tapped by a wide range of questions, from those probing willingness to pay for pollution cleanup to those ascertaining attributed blame for pollution. The general poll findings indicated that environmental concern was greatest in the East, least in the South. Although rural areas reflected little interest, suburban areas reflected great interest in

environmental conditions. According to the poll data (Tables 1, 2, and 3), concern about pollution has been substantial from as far back as 1965, gradually increasing to attract the attention of nearly three-quarters of the population in 1970. That concern was so deeply felt in 1970 that well over half of the entire population sampled admitted a willingness to pay \$15 per year as a hypothetical pollution tax.

To know who these people are in terms of their demographic characteristics, one must turn to other reviews of the surveys, such as those of Munton and Brady (1970) and Sigler and Langowski (1971). Again, however, because "an overwhelming majority of the public perceives pollution to be a problem" (Sigler and Langowski, 1971:6), the need for demographic specifications is displaced by an attempt to focus on the implications of the apparently high public concern in terms of the monetary sacrifices people might be willing to make, who they thought was to blame for the problem, and what steps they thought appropriate for government to take. Although demographic characteristics are not emphasized, the public being discussed tended to be slightly younger and more educated than the remainder of the sample (Sigler and Langowski, 1971:8).

Munton and Brady (1970) compiled more detailed characteristics of the public in question; unfortunately, their work came to fruition during the peak of interest in "environment" and therefore only reflects the early segment of the movement transformation. They presented data compiled from a January, 1969, Gallup survey (reproduced as Table 4), which indicated that about half of the population sampled was "deeply

Table 1.--National opinion of seriousness of air and water pollution for selected dates.

Date	Percent Responding Very or Somewhat Serious ^a	
	Air Pollution	Water Pollution
1965: May	28%	35%
1966: November	48%	49%
1967: November	53%	52%
1968: November	55%	58%
1970: June	69%	74%

SOURCE: Opinion Research Corporation, Princeton, New Jersey.
Excerpted from Erskine, 1972a.

^a"Compared to other parts of the country, how serious, in your opinion, do you think the problem of air/water pollution is in this area--very serious, somewhat serious, or not very serious?"

Table 2.--National opinion of presence of air pollution for selected dates.

Date	Presence of Air Pollution ^a		
	A Lot, Some	Little, Hardly Any	Not Sure
1967: July 24	56%	40%	4%
1970: April 20	70%	28%	2%

SOURCE: Harris, New York, New York. Excerpted from Erskine, 1972a.

^a"From what you know or have heard, do you think there is a lot of air pollution around here, some but not a lot, only a little, or hardly any?"

Table 3.--National willingness to pay air pollution control tax for selected dates.

Date	Willingness to Pay Air Pollution Tax ^a		
	Willing	Unwilling	Not Sure
1967: July 24	44%	46%	10%
1970: April 23	54%	34%	12%
1971: June 9-15	59%	34%	7%

SOURCE: Harris, New York, New York. Excerpted from Erskine, 1972a.

^a"Would you be willing to pay \$15 a year more in taxes to finance a federal program to control air pollution?"

Table 4.--National concern about environmental problems related to demographic and socio-economic characteristics.

Demographic Socio-Economic Characteristics	Level of Concern for Environmental Deterioration ^a				Total %	N
	Deeply Concerned	Somewhat Concerned	Not Very Concerned	Don't Know No Answer		
<u>Total</u>	51	35	12	3	100	3192
<u>Sex</u>						
men	56	32	10	3	100	1488
women	46	38	14	2	100	1712
<u>Race</u>						
white	52	35	11	2	100	2922
black	34	32	25	9	100	253
<u>Age</u>						
21-34	51	41	7	1	100	886
35-49	50	38	10	2	100	1032
50+	52	28	16	4	100	1249
<u>Education</u>						
grade school	39	34	20	7	100	856
high school	52	37	10	1	100	1615
college	62	32	6	-	100	721
<u>Income</u>						
<\$4,000	37	35	23	6	100	787
\$4000-6999	55	34	8	3	100	774
\$7000-9999	53	38	8	1	100	720
\$10,000+	58	34	7	-	100	877
<u>Occupation</u>						
farm	43	37	17	3	100	169
blue collar	48	39	12	2	100	1310
clerical, sales	52	37	9	2	100	366
professional, bus.	57	33	9	1	100	733
<u>Community Size</u>						
<2500	46	37	14	3	100	954
2500-49,000	52	31	16	1	100	479
50,000-249,000	55	35	16	1	100	505
250,000-999,000	52	35	11	2	100	642
1,000,000+	51	36	8	5	100	620
<u>Region</u>						
East	47	38	11	4	100	944
Midwest	57	34	9	1	100	859
South	45	36	16	4	100	873
West	59	32	10	-	100	524

SOURCE: Gallup, Inc., Princeton, New Jersey, January, 1969. Reproduced from Munton and Brady, 1970:17.

^a"You may have heard or read claims that our natural surroundings are being spoiled by air pollution, water pollution, soil erosion, destruction of wildlife, and so forth. How concerned are you about this?"

concerned with environmental problems.¹ That concern was indicated by men more than women and whites more than blacks. Although there were no differences by age, higher levels of income and education were associated with greater concern, as was "white collar" employment. Munton and Brady also provided a time series analysis based on Opinion Research Corporation surveys in 1965, 1967, and 1968 (reproduced in Table 5). These data indicated no appreciable differences in the changing rates of seriousness attributed to air and water pollution for sex; however, a curious pattern was indicated for race. Blacks tended to be only slightly behind whites in concern about water pollution over the years, but they led whites in concern for air pollution in 1965, fell behind in 1967, and became equal in 1968. Again, concern seemed to be associated with younger age (as was indicated by Sigler and Langowski), higher education, and higher income.

The picture of the public interest in environmental issues indicated by the polls is that it grew gradually and pervasively over the years from 1965. The person sensitive to environmental issues tends to be a well-educated, affluent white male, who is just under 30, from a suburban area in the extreme West or East (cf. Trop and Roos, 1971; Tognacci et al., 1972; Erskine, 1972).

This picture, however, is not altogether consistent and data are not available through the relevant time period of the movement (through 1972). In April of 1967, Harris Associates found that 50 percent of the responding sample felt federal programs to curb air and

¹This increases to over 85% "deeply" and "somewhat concerned" when categories are combined, as was done in the presentation of data in Table 5.

Table 5.--National concern for air and water pollution by respondents' demographic and socio-economic characteristics for selected dates.

Demographic Socio-Economic Characteristics	Percentages of Respondents Feeling That Air and Water Pollution Are Either "Quite Serious" or "Somewhat Serious" ^a					
	Air Pollution			Water Pollution		
	1965	1967	1967	1965	1967	1968
<u>Total</u>	28	53	55	35	52	58
<u>Sex</u>						
men	28	56	56	39	57	61
women	28	51	55	32	47	56
<u>Race</u>						
white	27	54	55	36	53	59
black	34	37	53	32	47	53
<u>Age</u>						
18-39	31	57	58	39	54	64
40-59	29	56	56	35	55	59
60+	20	40	47	29	40	46
<u>Education</u>						
grade school	24	47	50	28	44	52
high school	28	58	57	24	55	62
college	32	57	64	48	62	67
<u>Occupation</u>						
farm	14	28	22	19	28	34
semi-skilled	29	51	53	32	45	59
skilled	30	57	60	35	60	60
white collar	34	58	59	37	57	63
prof.-managerial	33	62	64	48	61	69
<u>Income</u>						
\$5000	20	40	43	25	37	53
\$5000-9999	33	58	56	40	55	63
\$10,000+	36	53	69	48	62	70
<u>Community Size</u>						
2500	17	31	34	30	38	47
2500-99,999	19	33	44	26	45	53
100,000-999,999	25	64	58	40	60	59
1,000,000+	52	76	84	45	62	73
<u>Region</u>						
East	41	61	66	40	58	64
Midwest	28	56	59	43	60	66
South	17	37	35	32	37	44
West	27	64	69	21	50	60

SOURCE: Opinion Research Corporation, Princeton, New Jersey. Reproduced from Muntion and Brady, 1970:27. Dates and Sample Sizes: May, 1965, N=1077; November, 1967, N=1047; November, 1968, N=2079.

^a"Compared to other parts of the country, how serious, in your opinion, do you think the problem of air (water) pollution is in this area?"

water pollution should be expanded. In the following two years (January, 1968; February, 1969), only 4 and 8 percent of the responding sample, respectively, felt such programs should either be kept or increased. Typically, these questions and their code categories were dissimilar, making any time series comparisons difficult. Erskine (1972a) offered other examples that might be brought into view; however, the effort would not result in a clearer general picture but in more confusion because question wordings, coding schemes, and the nuance of opinion sought were different. These data might reflect relevant patterns, but we will never know since the indicators are not standardized or consistently used. This reflects an inherent shortcoming of commercial social data production. However, there do seem to be consistencies among certain variables--race, education, income, size of place--which suggest that Killian's assertion that social movements are heterogeneous representations of the parent population is not empirically supported (refer to p. 29).

Aside from whatever technological objections may be levied against the available data, the theoretical objection can be raised that "opinion" data are irrelevant unless they are couched in relational context to other things such as the growth of movement organizations, enactment of laws, or transforming activity patterns of institutional organizations. It is mechanically possible to link the data reviewed above with more substantial indicators (Appendix B), but the result supports the hunch that "poll" data are biased so as to obscure sociologically relevant distinctions. Other, we believe more precise indicators, suggest that the period changes are much sharper than indicated by the gradual rise of interest since 1965 and that rise of

interest follows a certain pattern not detectable by discrete studies of public opinion. Because the findings of the present research are derived from a theoretical rationale that demands continuous monitoring as a basis for evaluation of specific predictions, it can more adequately capture the dynamic qualities of the phenomenon in question. Because this quality is missing in the published data, their meaningful interpretation is imprecise and open to speculation.

The Pattern of Environmental Bias Over Time

In the course of resolving the problem of more accurately characterizing the scope and changes of environmental interest over time, three important points have been made. First, in Chapter I and in the first few pages of this chapter, the existing data were accused of reflecting an incomplete if not a misleading picture of the growth of interest in environmental issues. Correcting¹ this possible distortion involves the resolution of the operational difficulty of social desirability response sets resulting from structured questions related to environmental issues. We arrive at this point indirectly, as well, by considering the role of public opinion in social movements. The second point, then, is that although a social movement is inextricably involved with the general climate of popular opinion, it is extremely dependent upon a small nucleus of people who are attentive to the movement issues and constitute, in fact, the pool from which the movement organizations draw

¹The uncorrectable element is the failure of well-designed questions to have been developed and used from the time environmental problems first became objects of public discontent. Appendix B involves a discussion of the indicators that became apparent after 1965.

their support. These two points suggest that since we are interested in the attentive public rather than the mass public, the operational strategy of using structured questions is not precise enough to reflect only the attentive public. Any device that can be utilized to capture only the attentive public constitutes an improved data source and a theoretically relevant indicator of the support base of a social movement, in spite of the fact that it does not measure members of social movement organizations per se. The MIP-type question, supplemented by the structured PS item, provides the desired indicator.

These preliminaries unfortunately were lengthy, but were necessary to enable us to arrive at the third point, which is the central focus of this work--that the composition of the attentive public changes over time and that it is not as heterogeneous as the sample population, especially with respect to the age variable. This short section deals with empirical support for the first two points; the following sections of this chapter deal with the contribution of age differentials to changes in the attentive public over time.

The available data indicate the development of environmental interest took place rather gradually and attained widespread penetration into the minds of the American people. In terms of the number of people mentioning EMIP, this was not the case (see Table 6).¹ According to this indicator, there were no gains in environmental interest until some time between the 1968 and 1970 surveys. These

¹It is, of course, not the numbers that are important as much as their social visibility; i.e. what power do they have to command attention and support.

Table 6.--Approximate size of the attentive public of the environmental movement indicated by the proportion of people naming EMIP.
(Percentage)

Year	Percent	N
1966	2.0 ^a	(1291)
1968	1.6	(1557)
1970	16.5	(1513)
1972	9.9	(1036)

^aThis figure is computed from marginals contained in the 1966 NES code book, which does not indicate the number of people who do not respond to the MIP question. Presumably, the actual percentage would be somewhat smaller than indicated.

rates clearly demonstrate the first general hypothesis, offered earlier, that:

Hypothesis 1: The gross transformation of proenvironmental bias over time (for all ages) will be characterized as an increasing monotonic curve during the movement's emergence and diffusion, to some point in time (in the present case around Earth Day, 1970), after which it decreases, stabilizing below its highest level and above its lowest level.

The gain was sharp and rather impressive when one considers that this indicator was based on spontaneous mentions of five out of a possible 118 different items for which codes were available (including issues related to the war in Southeast Asia, inflation, crime, and other popular topics). The level of the MIP indicator declined considerably in 1972, when the movement declined (cf. New York Times, 1972; U.S. News & World Report, 1972), so we know that the indicator behaved the way it would behave if it were measuring a social movement.

Environmental interest might be captured by reference to a wide variety of topics. Fortunately, the breadth of these topics is generally well covered by the range of available codes. Table 7 shows that the vast majority of interest in environmental problems was captured by general references to "pollution prevention" and "environmental problems." The general decline of interest in EMIP did not include the "population increase" or "birth control" facet of environmental problems. This table does not reflect precise cleavages between the various categories, because many respondents mentioned more than one item. Assuming that the EMIP indicator measured the movement core and attentive public (orbits one and two), it was expected that as the movement declined public support, the ratio of core to attentive public would increase;

Table 7.--Specific dimensions of environmental problems among people who mention EMIP.
(Percentages)

Dimension of Environmental Concern ^a	Year	
	1970 %	1972 %
Population increase, birth control	5.6	11.8
Conservation of natural resources; forests, parks, wildlife, minerals; ecology problems	11.2	7.8
Prevention of water, air pollution; pollution; environmental problems	74.0	61.8
General references to natural resources	--	--
Other agricultural and natural resource problems . . . . .	.4	2.0
Mentions of two or more of the above	8.8	16.7
Total	100.0	100.1
N	(250)	(102)

^aThese dimensions are the code categories used in the Center for Political Studies standardized major problems code that pertain to environmental issues.

i.e. there would be relatively more core to attentive public when the movement was on the decline. Some support of this idea is found if we assume that multiple mentions are more characteristic of people nearer the core than of those found among the attentive public generally. Keeping in mind the fact that being "in the movement" is not an either/or situation, we are suggesting that even the MIP indicator captures an element of people who are superficially concerned about environment. To the extent that superficially concerned people are more likely not to have been included in the 1972 EMIP mentioners, the ratio of core to attentive public increased and was reflected by a greater percentage of people giving multiple responses. This appears to have been the case, suggesting that the EMIP item behaved as it should to be considered a valid indicator of the environmental social movement.

Comparing the findings disclosed by the MIP and the PS items (Table 8), we note that the MIP does seem to be a valid indicator of environmental bias insofar as 82 percent of the people who mentioned EMIP in 1970 also mentioned PS values 1-3. However, the MIP item is not a perfect indicator and there remains a possibility that people who mention EMIP might do so because they feel environmental reforms threaten them personally through their occupation or threaten things they believe in, like growth and development of the nation and the inalienable right of self-determination for free enterprise. This possibility, in fact, is the focus of an important exception to the general findings discussed in the following section.

The PS item, however, is not itself a suitable indicator of the environmental movement. The MIP indicator dropped as the movement

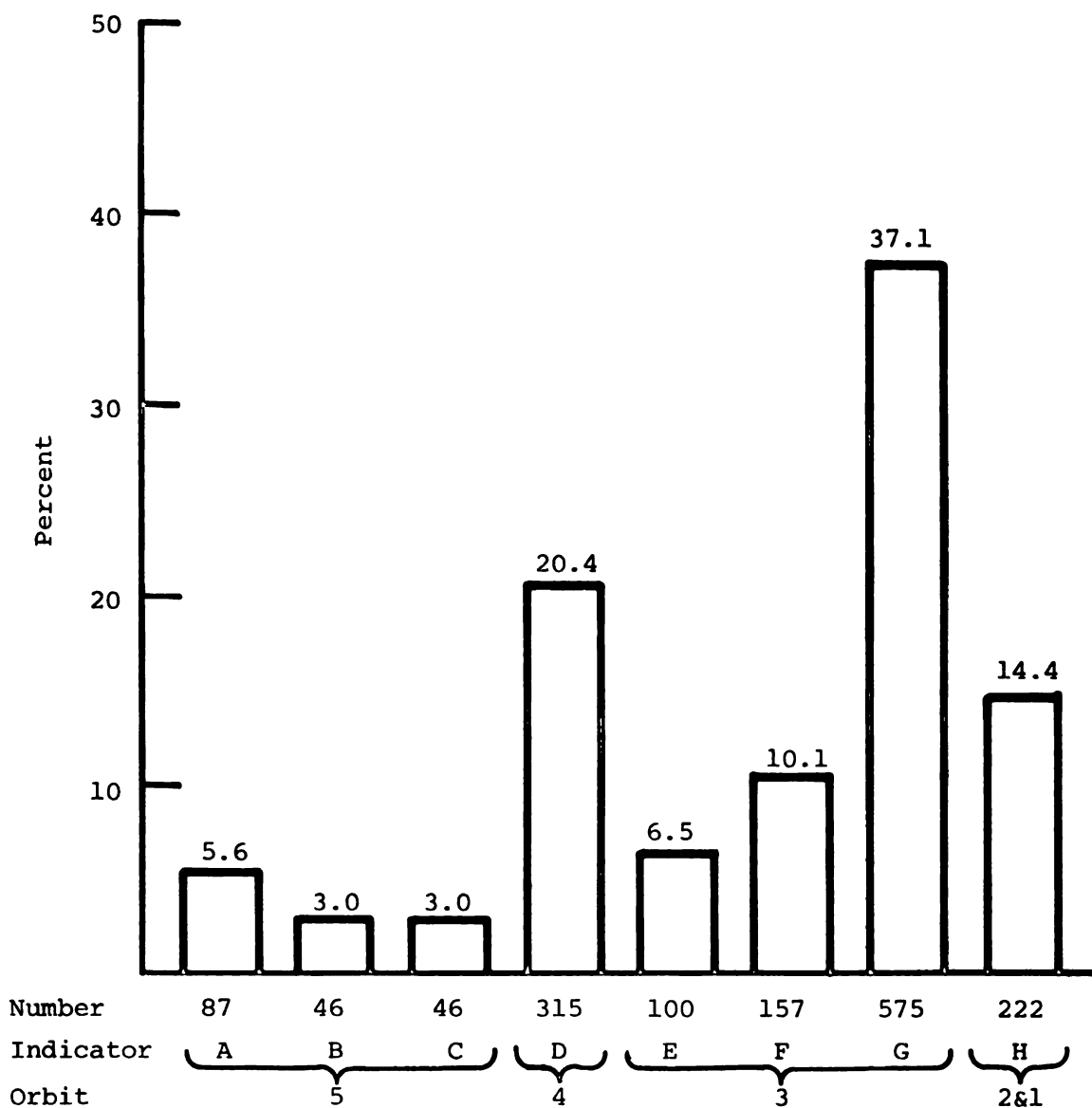
Table 8.--Promovement subsample and total sample pollution scale response distributions:
1970-1972.
(Percentages)

Year and Sample	Pollution Scale Values							N
	1	2	3	4	5	6	7	
	"Force Industry to Stop Polluting"		"Let Industry Handle Pollution Its Own Way"					Total
<u>1970</u>								
Promovement Subsample . . .	59.8	12.3	9.8	9.0	3.7	2.0	3.3	99.9 (244)
	81.9							
	74.8							
Total Sample	52.2	13.6	9.0	12.2	3.3	3.3	6.3	100.0 (1380)
<u>1972</u>								
Promovement Subsample . . .	63.4	12.9	7.5	7.5	3.2	--	5.4	99.9 (93)
	83.8							
	80.7							
Total Sample	63.1	10.6	7.0	7.0	2.7	1.6	8.0	100.0 (957)

declined from 1970-1972 (16.5 to 9.9%, see Table 6), but the PS item (values 1, 2, and 3) slightly increased over the same period (74.8 to 80.7% for the total sample, see Table 8). This is a function of the normative response bias attributed to the normative dimension of a structured question addressed to the public at this time. This limitation would involve only the normative element of the scale--those endorsing the sentiment that "industry ought to be forced to stop polluting." Obviously, the nonnormative element favoring industrial self-determination could not be viewed as a swing in the direction of the environmental spirit of this period. Because of the nonnormative element captured by PS values 5, 6, and 7, it can be considered an indicant of antimovement bias that is not subject to normative response sets.

The utility of combining the MIP indicator and PS as indicated can be seen when the data are displayed in the fashion suggested by the orbital model. Figures 9 and 10 were constructed to illustrate empirically the stratification of opinion and the respective elements of mass and attentive publics. Let PS items 5-7 be analogous to orbit five, the "antagonistic public"; PS item 4 analogous to orbit four, the "inattentive public"; PS items 3-1, excluding people who mention EMIP, analogous to orbit three, the "mass public"; and PS items 3-1 and EMIP analogous to orbits two and one, the promovement "attentive public." Orbit one, the "core" of the movement, is considered to lie within the last category as stipulated by the theory but not independently captured by the data collected.

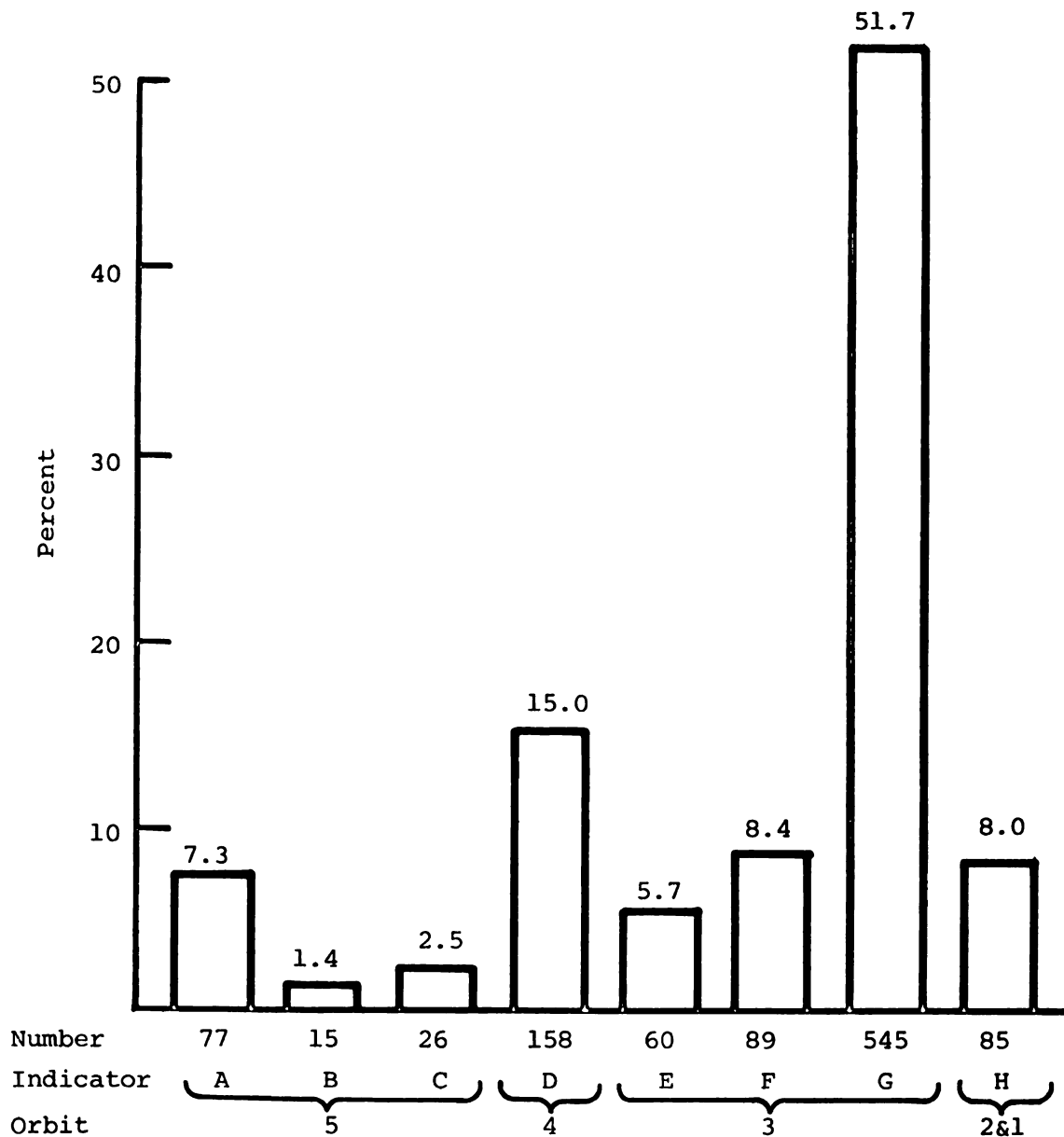
Considering the 1970-1972 changes in each of the orbits, it is possible to derive a picture of the changes in various levels of



Indicators

- A. PS, Value 7 ("Industry ought to be allowed to handle pollution its own way.")
- B. PS, Value 6
- C. PS, Value 5
- D. PS, Value 4, and 0 ("Haven't thought much about it")
- E. PS, Value 3, but no EMIP
- F. PS, Value 2, but no EMIP
- G. PS, Value 1, but no EMIP
- H. PS, Values 1-4, and EMIP ("Industry ought to be forced to stop polluting.")

Figure 9.--Distribution of public interest in environment according to the orbital model, 1970. (N = 1548)



Indicators

- A. PS, Value 7 ("Industry ought to be allowed to handle pollution its own way.")
- B. PS, Value 6
- C. PS, Value 5
- D. PS, Value 4, and 0 ("Haven't thought much about it")
- E. PS, Value 3, but no EMIP
- F. PS, Value 2, but no EMIP
- G. PS, Value 1, but no EMIP
- H. PS, Values 1-4, and EMIP ("Industry ought to be forced to stop polluting.")

Figure 10.--Distribution of public interest in environment according to the orbital model, 1972. (N = 1055)

public opinion that seems compatible with both public opinion theory and social movement theory. Orbit five, the "antagonistic public," decreased slightly over the period but increased in extremeness, as one might expect from the sharpening of economic problems associated with environmental control legislation. The "inattentive public," orbit four, decreased as continuing mass media coverage of environmental issues made it less probable that people could avoid exposure and some kind of opinion information about this topic. Similarly, orbit three, the "mass public," greatly increased, as might be anticipated, because of the accumulation of experience with the matter and the recognition that voluntary action by industry is an unlikely eventuality. The "attentive public," orbits one and two, decreased in size as the movement changed from a movement offering opportunities for rewarding group and civic involvement to one demanding skills in collecting empirically supportable data and establishing legally sound cases for court resolution (as predicted by Morrison et al., 1972). The increase in "mass public" endorsement and the decrease of the "attentive public" might be interpreted as the pattern of an institutionalized social movement¹--which, in the case of the environmental movement, took place with breath-taking rapidity (signified by the passage of the National Environmental Protection Act and establishment of the unofficial arbitrator of citizen-industry environmental conflict--the Environmental Protection Agency).

¹Of course, one could look at the situation the other way around--as social movement-ized institutions or government by social movement, of which there are several examples in the 1960's.

An important point to be understood from the organization of the data according to the orbital model is that changes in the third orbit, the mass public, do not correspond with the decline of the movement. Only changes in the antagonistic and promovement attentive public reflect what, by other accounts (Albrecht, 1972; Morrison et al., 1972; Morrison, 1973) has been indicated as the outcome of the environmental social movement.

Organizing our thoughts and the empirical findings according to the orbital model helps us visualize the interplay between different levels of public interest and the highly visible movement core. It is easily seen that opinion became more stratified in 1972; that is, there was a tendency to endorse more extreme values of the PS than in 1970. Yet why did the increase in PS-1 not also prompt an increase in EMIP rates? Without more specific empirical information, a precise answer to this question is not possible. To the extent that PS-1 is indicative of normative bias alone, however, it can be surmised that people were more willing to express extreme positions in 1972, when a stockpile of experience with continuing pollution and abortive legislation suggested that the probable public judgment should be for greater legal intervention. The normative effect alone is reflected in the smaller number of undecided people (indicator D in Figure 10).

The inflation of PS-1 suggests no clear empirical consequent. The shrinkage of the attentive public is subject to a more precise interpretation because of its role in the orbital model. The decline of the attentive public means that the recruitment/contribution pools available to movement organizations have dried up. To the extent that

social movement organizations operate on a slim surplus of available resources, they are prone quickly to reflect such erosion of the support base.

Age and Environmental Bias

The general hypothesis that there is a direct, monotonic, decreasing relationship between age and social movement sentiment is directly addressed in this section.

In 1968, interest in environmental issues was almost nonexistent. Only 24 of 1,557 respondents named environmental issues as the MIP. Table 9 indicates a concentration of people mentioning EMIP in the 38-47 year old age group. Normally, this occurrence would not be worth mentioning. In this case, however, the clustering in the middle age group before the movement was widespread underscores findings from other research and establishes an important point of reference that continues to operate during and following the movement's peak activity in 1970.

Assuming that the environmental movement was not yet underway in 1968, what would be the best guess about the characteristics of people who might reflect environmental awareness and concern? The best speculation would be that their characteristics are similar to those of people who have been found to be active in conservationist interest groups such as the Audubon Society, Sierra Club, etc. (cf. McEvoy, 1971). In a widely noted study of pre-environmental movement conservation formal voluntary organization (FVO) members, Harry, Gale, and Hendee (1969) found that the characteristic age was bimodal,

Table 9.--Promovement bias and age in 1968.

Age	Percent EMIP Mentions	Number of EMIP Mentions	Sample
21-27	1.4	(3)	(222)
28-37	1.8	(5)	(286)
38-47	2.9	(10)	(340)
48-57	1.5	(4)	(272)
58-67 . . . . .	.9	(2)	(220)
68+	--	--	(184)
Total	1.6	(24)	(1524)

clustering in the 35-44 age range and among people aged 55 and above. Faich and Gale (1971) found a slightly younger age characteristic of Sierra Club members with a modal category of 30-40. Bartell and St. George (1973) found a mean age of 40 in their study of the Sierra Club. While the findings are not without ambiguity, there seems to be general agreement that the age characteristic of conservation FVO members is within the same age range that the 1968 data suggest contained the greatest incidence of EMIP mentions--the 38-47 age group. Inferential evidence suggests that people naming EMIP in 1968 might have been reflecting traditional conservationist FVO interests, at least insofar as their age modes coincide.

The 1968 NES age distribution also corresponds with the distribution of people in Buttel's study (1972) naming air and water pollution as Wisconsin's greatest problem for that year. Table 10 shows the respective distribution of environmental concern between Wisconsin data provided by Buttel (1972) and the 1968 National Election Study (the latter being regrouped to conform with the former). Again we note that the distribution of percentages is similarly rank ordered, except for the great difference in the overall attention given to the issue of environmental problems.

Although the 1968 NES evidence is numerically slight, the tendencies reflected in 1968 are corroborated by several independent sources, indicating that whatever interest in environmental problems existed was located in age ranges similar to those of members of traditional conservation interest groups. This coincidence persists in

Table 10.--Age characteristics of people mentioning environment-related codes in Wisconsin and in the nation during 1968.^a
(Percentages)

Age	Sample			
	Wisconsin ^b		National	
	Percent	N	Percent	N
21-29	19.4	(103)	1.0	(283)
30-44	21.7	(226)	2.6	(461)
45-65	13.4	(127)	1.3	(550)
66+	8.6	(117)	.9	(230)
Total	16.8	(573)	1.6	(1524)

^aThe number of cases upon which the percentages are based is indicated in parentheses.

^bThe Wisconsin data are reproduced from Buttel, 1972:36. The age groups are constructed to conform with Buttel's classifications. The 1968 NES did not collect data for people aged 18-20.

1970 and 1972. In 1972 we have FVO membership data as well as EMIP mentions; this issue will be taken up in due course.

Before moving on to an analysis of the 1970 NES, mention should be made of the comparative importance of the environmental issue in relation to other important issues. In another series of questions not related to the EMIP item, the 1970 survey specifically asked the level of importance of eight major issues of the year (see Table 11). These issues were listed for the respondent, who was asked to rank each issue according to the level of importance it had for him. One of the issues, "private industry pollution," corresponded closely enough to the general environment issue to be used as an indicator of the rank order of environment relative to other topics of importance. Such data only serve as a rough indicator of the relative order of competing problematic issues of concern to the public during the period of the environmental movement due to the tendency for overendorsement of all items. In fact, only 250 people or 26.3 percent of those who felt industrial pollution was "very important" mentioned any of the five possible environment-related codes as the MIP. The difference is partially attributable to the normative response bias of the structured question. Most respondents felt all issues were important to them. Few respondents indicated any issue was "not very important" to them--ranging from 9.6 percent for health insurance to 2.4 percent for inflation. Another part of the difference is due to the frame of reference. Table 11 reflects the importance to respondents of a determined set of problems that, perhaps illogically, assumes that all people should feel personally about important national affairs and proceeds to force a choice on that

Table 11.--Rank order of major national issues according to importance to respondent, 1970.
(Percentages)

Rank	Issue	"Very Important" ^a	
		% ^b	N
1.	Inflation	80.7	(1382)
2.	Private industry pollution	72.1	(1317)
3.	Vietnam	69.4	(1481)
4.	Student unrest	67.4	(1404)
5.	Criminal rights	67.4	(1295)
6.	Urban unrest	67.0	(1486)
7.	Health insurance	58.9	(1289)
8.	Aid to minorities	53.2	(1358)

^a"How important would you say this issue of _____ is to you?"

^bThe number of cases upon which the percentages are based is indicated in parentheses.

basis. The MIP-type question merely provides an opportunity for the recollection and expression of issues that are sufficiently salient to the respondent that he will disclose them spontaneously. The only constraint on the nature of the disclosures to be recorded as data is the preconceived universe of problems contained in the code. In the case of environmental issues, the coded categories developed by the Center for Political Studies provide ample opportunity to capture environmental sensitivity in whatever terms are offered.

Returning now to the age distribution of environmental bias, the Buttel (1972) data can again be compared with those from the 1970 National Election Study. Table 12 reflects the relationship between the two studies, distributed by age groups according to Buttel's age categories. As grouped, the EMIP rates decreased as age increased.

There is a possibility that all responses to the MIP item are skewed toward higher rates for younger people because they are more media attentive, opinionated, or more educated. To check this possibility, the distribution of EMIP rates was compared to the distribution of rates of mention of inflation as the MIP. (Inflation and industrial pollution were the two most important topics in 1970, according to the structured question shown in Table 11, page 120.) Table 13 indicates that the decline in EMIP rates with increasing age does not characterize the pattern of interest in inflation as the MIP. According to this comparison, it would seem that older people are by no means less opinionated or inattentive to the topic of inflation; i.e. the topic is equally important regardless of age level (excepting, possibly, people entering retirement). This comparison suggests what might be the

Table 12.--Age characteristics of people mentioning environment-related codes in Wisconsin and in the nation during 1970.^a
(Percentages)

Age	Sample			
	Wisconsin Percent	N ^b	National Percent	N
21-29	49.2	(122)	19.7	(305)
30-44	40.9	(225)	18.3	(409)
45-65	39.4	(155)	13.8	(536)
66+	31.6	(117)	9.6	(239)
Total	40.4	(619)	15.6	(1489)

^aWisconsin data adapted from Buttell (1972). Age groups adjusted to Buttell's categories.

^bThe number of cases upon which the percentages are based is indicated in parentheses.

1

Table 13.--Environment and inflation as most important problems (1970).
(Percentages)^a

Issue	Age						Total
	18-27	28-37	38-47	48-57	58-67	68+	
Environment MIP . . .	21.3	17.2	21.0	15.9	11.0	9.5	16.6
	(310)	(273)	(262)	(251)	(218)	(190)	(1504)
Inflation MIP	19.4	19.4	16.8	19.9	24.3	19.0	19.7
	(310)	(273)	(262)	(251)	(218)	(190)	(1504)

^aThe number of cases upon which the percentages are based is indicated in the parentheses.

distinction between the dynamic transformations of the social movement topic (environment) and what would be expected to be the more stable character of a subject of traditional popular interest (inflation). Although it is possible for a topic not to be stratified by age, the environmental issue in 1970 was clearly age graded as hypothesized:

Hypothesis 2: Proenvironmental bias will be stratified by age.

The pattern of that stratification will be taken up shortly.

To get a general view of the way rates of EMIP mention vary by age level for all three National Election Studies (now adding the 1972 study), age was trichotomized into approximately equally sized groups of young (18-32), middle (33-52), and older (53+) people in Table 14.¹ At different points in time, the EMIP rates depict different configurations of interest in environmental problems according to age levels. While the EMIP rates decreased with increasing age in 1970, this was not the case in 1972, when middle-aged people reflected, as they did in 1968, the highest rates of interest.

The hypothesis offered earlier may be modified slightly by the empirical findings. For the initial measurement, it was expected that:

¹The 1970 mean age of the EMIP subsample is 41.0 (standard deviation of 16.0), while the sample mean is 45.3 (standard deviation of 17.6). The 1972 mean age of the EMIP subsample is 40.4 (standard deviation of 17.0), while the sample mean drops to 43.9 (standard deviation of 17.8). The EMIP subsample was young in 1970 (4.3 years less than the sample average), but it was less young in 1972 (dropping to 3.5 years less than the sample average). Histograms of the numerical frequencies for each age may be found in Appendix D., as is a comparison of the 1970 census with the 1970 National Election Study with respect to age representation (Appendix E).

Table 14.--Promovement bias by age: 1968-1972.
(Percentages)^a

Year	18-32 ^b		Age		53+		Total	
	%	N	%	N	%	N	%	N
1968 . . .	1.4	(358)	2.2	(631)	.9	(535)	1.6	(1524)
1970 . . .	19.5	(476)	17.1	(549)	11.5	(546)	16.6	(1504)
1972 . . .	9.6	(364)	11.8	(346)	7.0	(358)	9.8	(1033)

^aThe number of cases upon which the percentages are based is given in the parentheses.

^bThe 1968 National Election Study did not collect information from people aged 18-20.

Hypothesis 2.1: Proenvironmental bias for the initial period of measurement (1968) will be highest among the middle-aged, lowest among the youth.

Although the differences in 1968 were small, this hypothesis may be amended to reflect that the lowest initial EMIP rate was found among the older group rather than the youth group. For the interim measurement in 1970, it was correctly anticipated that:

Hypothesis 2.2: Proenvironmental bias for the interim period of measurement (1970) will be highest among the youth, lowest among the aged.

The hypothetical expectation for the final period was also demonstrated by the findings. It was hypothesized that:

Hypothesis 2.3: Proenvironmental bias for the final period of measurement (1972) will be highest among the middle-aged, lowest among the aged.

The prediction of the outcome of age differentials of EMIP interest over time, however, should be examined in greater detail. A test of the power of such ideas as contained in these hypotheses is the extent to which they continue to explain the dependent variable for even smaller groupings of the independent variable. What are shown to be corroborative findings when we look at age as a trichotomy could become a weak or ambiguous pattern when viewed in greater detail.

It is analytically crucial that the levels of aggregation of the data be carefully chosen. A trichotomy of the age data tends to obscure the more interesting deviations from the pattern. The greatest possible detail, on the other hand, such as the EMIP rates for each age level, would provide too much information, in which we would have less confidence, because of sampling variation (consequences of diminishing cell N's). Figures 11 and 12 show the distributions of the three



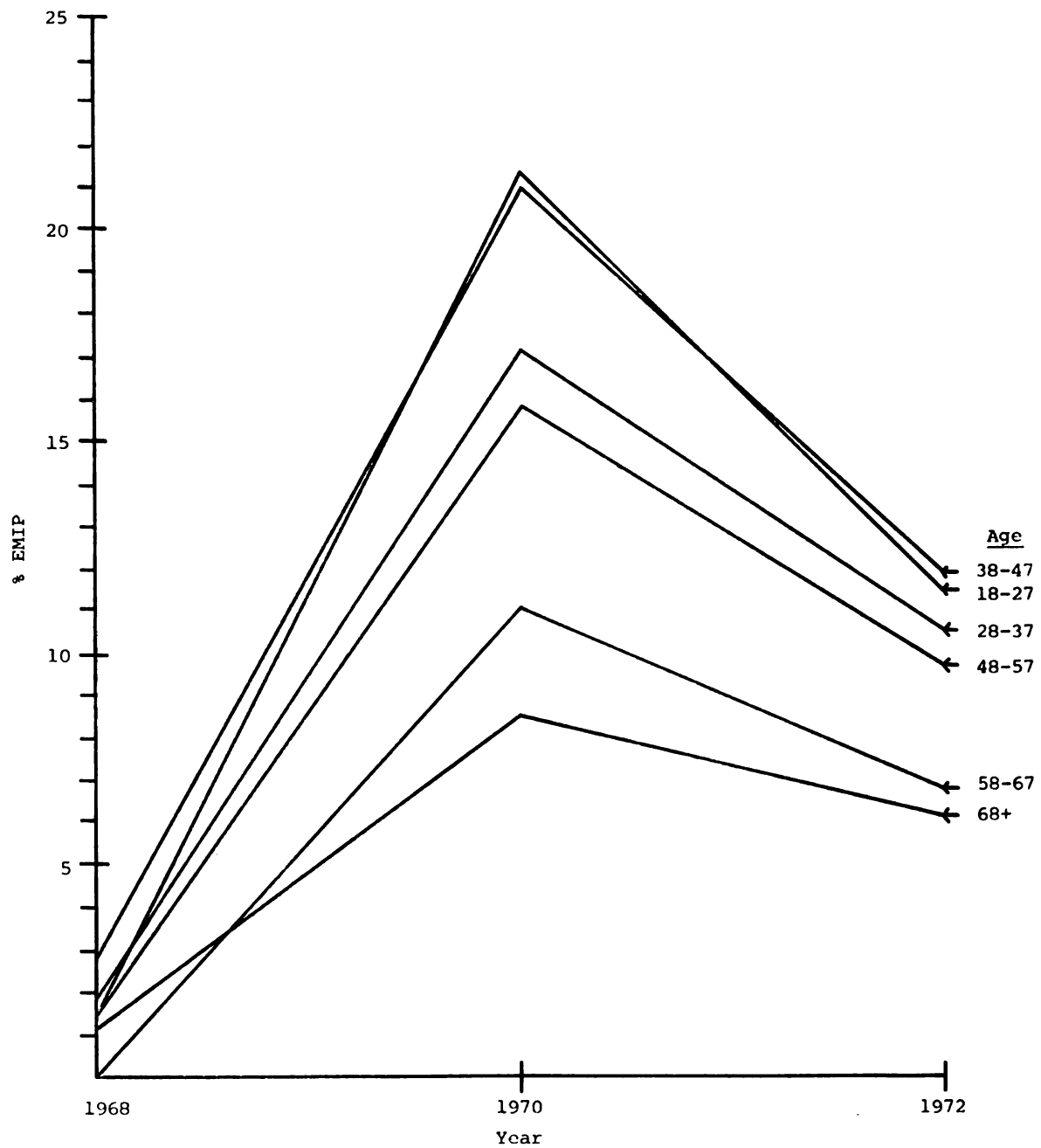


Figure 11.--Distribution of promotion bias over time for various age groups of ten-year intervals. (From Table 15)

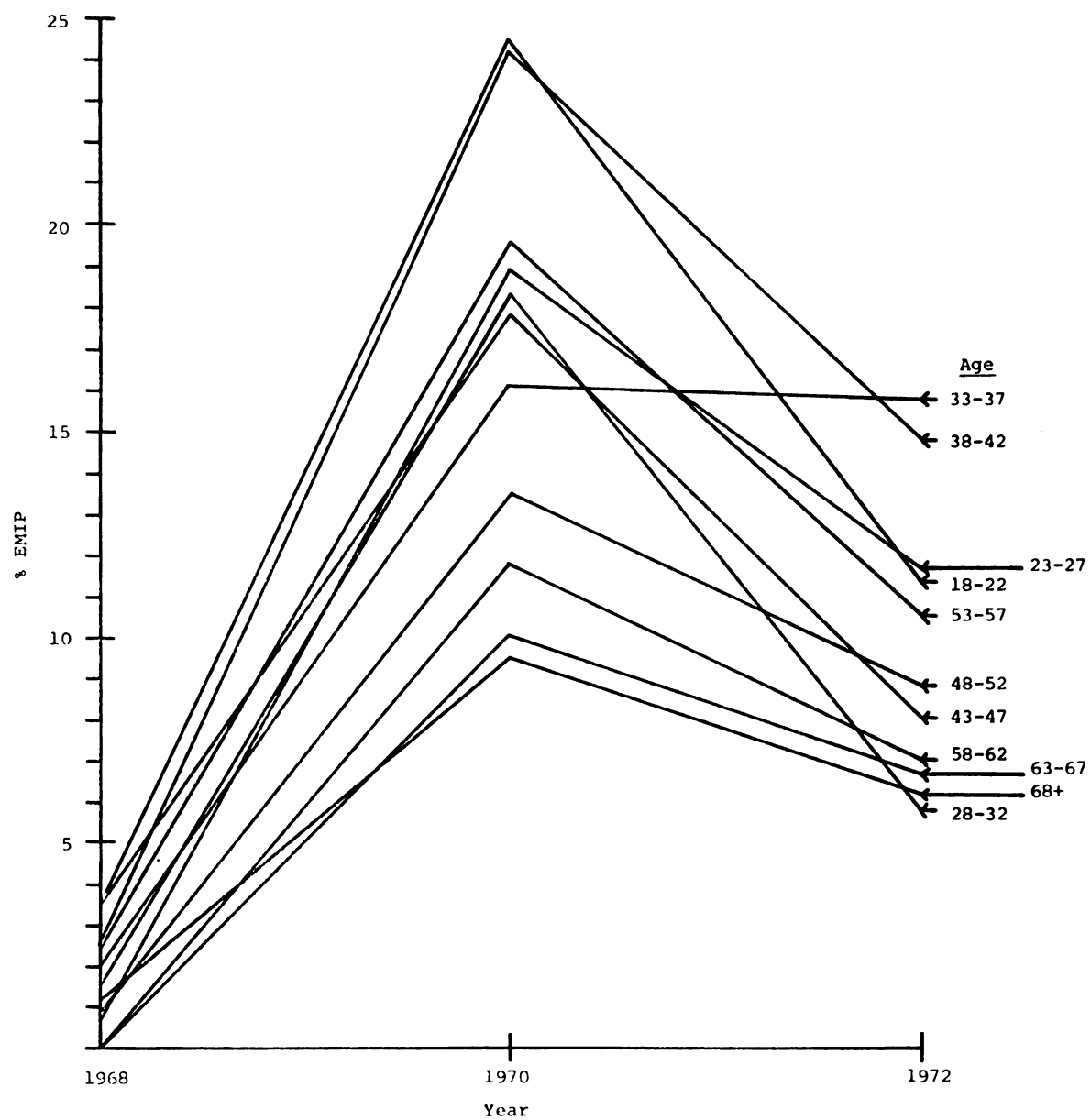


Figure 12.--Distribution of promovement bias over time for various age groups of five-year intervals. (From Table 16)

years studied for five- and ten-year intervals of age (the figures are based on Tables 15 and 16). The five-year interval (Figure 12) has the greatest reliable detail possible. Even at this level of aggregation, cell variations of plus or minus one in rates of EMIP mention would serve to alter substantially the existing rank orders. It is difficult to know in the abstract what particular combinations of age groups might best illustrate the processes believed to be operating. The particular age interval of 28-37, for example, seemed to capture an unfortunate combination of people since the 28-32 age segment had the lowest EMIP rate, while the 33-37 segment had the highest EMIP rate in 1972. The combined effect of the extremes resulted in positioning this group in an order that is theoretically predicted when the data are disaggregated only to ten-year intervals. In spite of the hazard of small N's, therefore, we opt for an extended discussion of the more detailed five-year age interval. While such detail introduces no flagrant deviations from what might be concluded from more aggregated tabular presentations, it does reveal some interesting and partially testable exceptions to the more general findings.

The major theoretical concern with these data is the differential reaction of the population under study during the rise and fall of environmental interest among the attentive public. It is convenient to think of two basic periods defined by the available data. For lack of a better term, the period of measurement from 1968 to 1970 represents the "growth period" and captures the increase in environmental interest from its 1968 level to its peak level in 1970. The "decline period" is that interval from the high point in 1970 to the lower 1972 level,

Table 15.--Promovement bias by age (ten-year intervals): 1968-1972.
(Percentages)^a

Year and N	Age						Total
	18-27	28-37	38-47	48-57	58-67	68+	
1968 N	1.4 ^b (222)	1.8 (286)	2.9 (340)	1.5 (272)	--- (220)	1.1 (184)	1.6 (1524)
1970 N	21.3 (310)	17.2 (273)	21.0 (262)	15.9 (251)	11.0 (218)	9.5 (190)	16.6 (1504)
1972 N	11.5 (253)	10.4 (193)	11.8 (169)	9.6 (156)	6.8 (148)	6.1 (114)	9.8 (1033)

^aThe number of cases upon which the percentages are based is given in the parentheses.

^bThe 1968 National Election Study did not collect information from people aged 18-20.

Table 16.--Promovement bias by age (five-year intervals): 1968-1972. (Percentages)^a

Year and N	Age											Total
	18-22	23-27	28-32	33-37	38-42	43-47	48-52	53-57	58-62	63-67	68+	
1968 . . .	3.4 ^b	.6	1.5	2.0	2.4	3.5	.7	2.3	--	--	1.1	1.6
N	(59)	(163)	(136)	(150)	(170)	(170)	(141)	(131)	(102)	(118)	(184)	(1524)
1970 . . .	24.3	18.8	18.2	16.0	24.2	17.7	13.3	19.4	11.7	10.0	9.5	16.6
N	(140)	(170)	(148)	(125)	(132)	(130)	(143)	(108)	(128)	(90)	(190)	(1504)
1972 . . .	11.3	11.6	5.8	15.7	14.9	8.0	8.9	10.4	7.0	6.6	6.1	9.8
N	(106)	(147)	(104)	(89)	(94)	(75)	(79)	(77)	(72)	(76)	(114)	(1033)

^aThe number of cases upon which the percentages are based is given in the parentheses.

^bThe 1968 National Election Study did not collect information from people aged 18-20.

a point in time at which the "Earth Day" enthusiasm had considerably mellowed.¹

Hypothesis 3 addresses the general spread of interest in EMIP by age over time:

Hypothesis 3: Differences among age groups in proenvironmental bias will tend to diverge prior to reaching their apex, after which point they will converge over the duration of the movement.

It can readily be observed from either Figure 11 or 12 that from 1968 to 1970 there was a considerable divergence of interest in EMIP across age groups as the attention given to the movement ideology and programs was different for people at various age levels. From 1970 to 1972, however, the convergence is clearly evident. In 1972 the differential between the age group with the highest EMIP rate (33-37) and the group with the lowest EMIP rate (28-32) was 9.9 percentage points, while the 1970 spread was 14.8 (between the low 68+ age group and people aged 18-22). The hypothesis does not capture the extent of the differences, and might be reworded to state: "Environmental problem identification rates will diverge during the growth period and converge during the decline period of the environmental movement across all age groups."

¹The data do not correspond exactly with the times we might ideally like to have information about. The highest interest period would undoubtedly have been around "Earth Day," April 22, 1970. The 1970 data were actually collected in the late fall of that year, and undoubtedly underrepresent the numerical size of the movement as it might have been measured in April. The 1968 and 1972 measurements are satisfactory "before" and "after" measurements.

It is also clear from Figures 11 and 12 that the final rate of EMIP interest in 1972 was higher than the rate of interest reflected in 1968 for all age levels. It was hypothesized that:

Hypothesis 4: For each age group, the initial level of proenvironmental bias will be lower than the final level.

After the findings are available, the paucity of interest reflected in 1968 makes this hypothesis seem like a truism; however, that need not have been the case.

The differential involvement of age groups in these growth and decline periods is most clearly represented by the percentage difference table for the three measurement dates. Table 17 reflects the detailed age groups (five-year intervals) according to their growth and decline period gains and losses. The "gain" is the difference between EMIP rates for 1968-1970, whereas the "loss" is the difference between the rates for 1970-1972. The "net change" reflects the overall change in EMIP rates from the initial period to the final period of measurement.

With only two exceptions, EMIP rates declined with increasing age when grouped into five-year intervals. The "growth period gain" in the diffusion of this issue among the attentive public was clearly age stratified, as the theories of aging, generation, commitment, and youth/aged politics suggest. The "decline period losses," however, were much less well patterned. Nevertheless, the greatest declines were in the younger 18-22 and 28-32 age groups.

For the youngest age group, it is not difficult to reason why such a great drop of interest might have taken place. While the youth

Table 17.--Interyear percentage differences in promovement indicator levels and age.^a

Percentage Difference	Age									
	18-22	23-27	28-32	33-37	38-42	43-47	48-52	53-57	58-62	63-67 68+
Growth Period										
Gain: '68-70	+20.9	+18.2	+16.7	+14.0	+21.8	+14.2	+12.6	+17.1	+11.7	+10.0 +8.4
Decline Period										
Loss: '70-72	-13.0	- 7.2	-12.4	- .3	- 9.3	- 9.7	- 4.4	- 9.0	- 4.7	- 3.4 -3.4
Net Change										
'68-72	+ 7.9	+11.0	+ 4.3	+13.7	+12.5	- 4.5	- 8.2	+ 8.1	+ 7.0	- 6.6 +5.0

^aDerived from Table 16.

are free to adopt social and political innovations without concern for their present or future impacts, at the same time they are bombarded with competing ideas--e.g. anti-war, civil rights and women's liberation issues--that, in the aggregate, serve to reduce long-term attention to any one endeavor. It is not the case, however, that many of the respondents were students who were "radicalized" by every cause that earned a campus speaker. Actually, the sampling procedure underrepresented students by avoiding dormitories and fraternities. Students who had an opportunity to be included in the study were more likely the "stay-at-home" variety, such as vocational school and junior college students. Only 45 students were included in the 1970 survey (N=1580). Only nine of them mentioned EMIP. This number amounts to 3.6 percent of the EMIP subsample, and clearly underrepresents student involvement in the movement, as Pittman amply documented (1974).

The 28-32 age group, in contrast, has a more settled life but also suffers the "crunch" of housing mortgages, maternity and child-rearing costs, and other distractions that tend to make them unlikely, in the aggregate, to become more than briefly involved with social and political issues. For a brief period between 23-27 years, one might reason, there is a degree of freedom during which some continuing interest in social and political issues might be maintained at relatively higher rates than during the preceding "late adolescence" or following "early family" periods in the life cycle (cf. Abrams, 1972: 102).

In terms of the net change remaining at the last period of measurement, it is clear that people in the 33-37 and 38-42 age range

were the most changed group with respect to EMIP mentions. This came about in different ways for the two groups. The 33-37 group was highly changed because it retained its high rate of EMIP interest in 1972 (conspicuously so, as can be seen from Figure 12); the 38-42 age group was highly changed because it was as highly mobilized as the youngest group but suffered only moderate losses in 1972. People aged 23-27 also reflected great overall change between 1968-1972 for similar reasons, i.e. high mobilization with moderate losses.

We have demonstrated the extent to which proenvironmental bias is age graded, with increasing bias associated with decreasing age levels. We now take up the question: Is the occurrence of antienvironmental bias also age graded, with increasing bias associated with increasing age? In terms of the orbital model, having demonstrated the hypothesized characteristic of the promovement attentive public near the core of the movement, can the logical extension of the same hypothesis also account for the characteristics of the antimovement attentive public near the periphery of the distribution of public opinion?

Table 18 shows the distribution, in five-year intervals, of PS levels 4-7 (graphed in Figure 13). Level 4 is the "undecided" category which, in 1970, might be considered the antimovement camp because of the prevailing general public support of the movement--to be undecided on this question at this time could be considered to be a mild form of resistance to what many influential sources were insisting was a general public good. Given the skepticism over the movement goals and means in 1972, no antimovement bias could reasonably be

Table 18.--Antimovement bias by age (five-year intervals): 1970-1972. (Percentages)^a

Year	Age											Total
	18-22	23-27	28-32	33-37	38-42	43-47	48-52	53-57	58-62	63-67	68+	
<u>1970</u>												
Undecided . . (PS-4)	8.1	13.6	14.0	19.1	9.7	10.2	10.5	16.7	11.0	10.3	12.5	12.3
Antimovement. (PS-5,6,7)	9.6	6.2	10.3	11.3	12.9	13.4	15.8	18.8	14.4	16.7	17.8	13.0
N	(135)	(162)	(136)	(115)	(124)	(127)	(133)	(96)	(118)	(78)	(152)	(1376)
<u>1972</u>												
Undecided . . (PS-4)	4.0	4.2	5.0	10.8	10.5	5.5	15.3	6.5	5.9	4.5	8.0	7.0
Antimovement. (PS-5,6,7)	5.9	4.9	8.0	9.6	12.8	12.3	12.5	23.4	17.6	12.1	25.0	12.3
N	(101)	(142)	(100)	(83)	(86)	(73)	(72)	(77)	(68)	(66)	(88)	(956)
<u>1970-1972</u>												
Net change in antimove- ment bias . .	-3.7	-1.3	-2.3	-1.7	- .1	-1.1	-3.3	+4.6	+3.2	-4.6	+7.2	- .7

^aThe number of cases upon which the percentages are based is given in the parentheses.

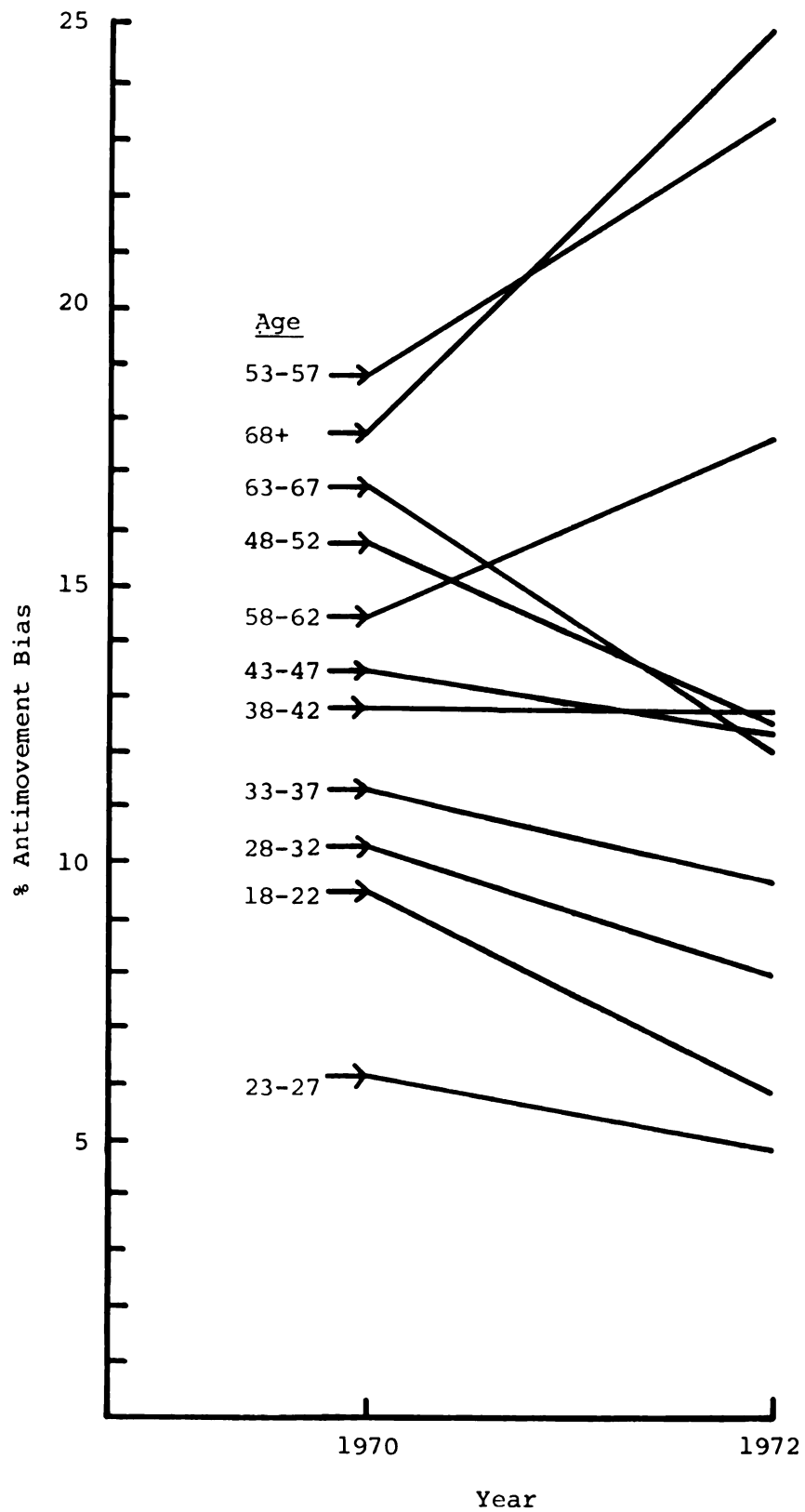


Figure 13.--Distribution of antimovement bias over time for various age groups. (Derived from Table 18)

imputed to the category. To be conservative, we have shown the category separately; it may be mentally factored in or not as the reader desires.

Antimovement bias, represented by PS levels 5-7, is amply represented by the position that industry should be allowed free reign to meet pollution reduction schedules solely by its own means. In 1970, the rates of mention of the antimovement indicator increased as age increased. In 1972, the rates increased even more dramatically across the various age levels. For both years, there was support for the hypotheses that:

Hypothesis 5: Antienviromental bias will be age stratified.

Hypothesis 5.1: Antienviromental bias for the interim period of measurement (1970) will be highest among the aged, lowest among the youth.

Looking at the interyear differences, however, suggests that the number of younger people reflecting antimovement bias tended to decline by 1972. At varying rates, this decline continued until some time in the mid-50's age group. After this age, there was a tendency for antimovement bias to increase in 1972. The overall effect is a diffusion of antimovement bias from the higher reaches of the age variable. This is suggested by the remaining hypotheses, which describe various ways to look at this effect:

Hypothesis 5.2: Antienviromental bias for the final period of measurement (1972) will continue to be highest among the aged, but will decrease among the youth.

Hypothesis 6: Differences among age groups in antienviromental bias will tend to diverge over the duration of the movement.

Hypothesis 7: For younger age groups, the initial level of anti-environmental bias will be greater than subsequent levels.

Hypothesis 7.1: For older age groups, the initial level of anti-environmental bias will be lower than subsequent levels.

The net effects of pro- and antimovement bias across age levels can be seen by looking at the combined scores of the promovement (EMIP) and antimovement (PS-5,6,7) indicators depicted in Table 19. The table shows that promovement bias increased as age decreased, while antimovement bias increased as age increased. The age-by-age percentage differences between pro- and antimovement bias are represented in the net score where, in the case of 18-22 year olds in 1972, the score of 5.4 means that this age group tended to be promovement by a balance of 5.4 percentage points difference between the rates of EMIP mention over the rates of mention of PS-5, 6, or 7.

Although there is evidence that proenvironmental bias tended to decline from 1970 to 1972, antienvironmental bias tended to increase over the same period. Some young people were motivated toward promovement expressions in 1970 and some were prompted to make antienvironmental expressions, but younger people generally dropped away from either pro- or antimovement endorsement in 1972. On the other hand, older people tended to be more antimovement biased in 1970, and though they declined in promovement bias in 1972, they increased greatly in antimovement bias in that year. The potential support base of the movement has withered, and, although no organized antienvironmental movement has developed, a nascent support base has emerged.

Table 19.--Environmental bias by age (five-year intervals): 1970-1972. (Percentages)^a

Environmental Bias and Year		Age											Total
		18-22	23-27	28-32	33-37	38-42	43-47	48-52	53-57	58-62	63-67	68+	
<u>1970</u>													
Promovement		24.3	18.8	18.2	16.0	42.2	17.7	13.3	19.4	11.7	10.0	9.5	16.6
N		(140)	(170)	(148)	(125)	(132)	(130)	(143)	(108)	(128)	(90)	(190)	(1504)
Antimovement		9.6	6.2	10.3	11.3	12.9	13.4	15.8	18.8	14.4	16.7	17.8	13.0
N		(135)	(162)	(136)	(115)	(124)	(127)	(133)	(96)	(118)	(78)	(152)	(1376)
Net Score ^b		+14.7	+12.6	+7.9	+4.7	+11.3	+4.3	-2.5	+ .6	-2.7	-6.7	-8.3	+3.6
<u>1972</u>													
Promovement		11.3	11.6	5.8	15.7	14.9	8.0	8.9	10.4	7.0	6.6	6.1	9.8
N		(106)	(147)	(104)	(89)	(94)	(75)	(79)	(77)	(72)	(76)	(114)	(1033)
Antimovement		5.9	4.9	8.0	9.6	12.8	12.3	12.5	23.4	17.6	12.1	25.0	12.3
N		(101)	(142)	(100)	(83)	(86)	(73)	(72)	(77)	(68)	(66)	(88)	(956)
Net Score		+5.4	6.7	-2.2	6.1	+2.1	-4.3	-3.6	-13.0	-10.6	-5.5	-18.9	-2.5

^aThe number of cases upon which the percentages are based is given in the parentheses.

^bThis score is the difference between the level of promovement bias minus the level of the antimovement bias. A positive score indicates a balance of promovement bias. A negative score indicates a balance of antimovement bias.

In general, it can be seen by looking at the net scores that there was a shift in antimovement bias toward lower ages. Beyond that, however, supportive bias among the younger members of the attentive public dropped substantially, while antimovement bias among the larger element of older people increased substantially.

The major practical concern with these data is the expected short- and long-term impact of heightened concern for environment as it is differentially retained by people of various age levels. In general, the movement has made a dramatic difference in the attention given to the problem of the environment as a whole. The effect of proenvironmental bias persisting in 1972 was highest for middle-aged people, but the 1970 pattern was much more clearly age graded. It appears that although the youth were more easily recruited to the movement issue, they also defected more readily. This suggests that different "roles" were played by various age groups during the successive periods of the movement. The growth period (1968-1970) was augmented by the mobilization of youth, but the following period (1970-1972) may have drawn more on the greater social, technical, and material resources of the middle aged (primarily activated through professional involvement--lawyers, scientists, educators--or through FVO membership; see p. 145).

The projected potential salience of the environmental issue may be greater than the figures indicate, for two reasons. Although the attrition rate is greatest for young people, it may be expected that their potential for rerecruitment is higher on a numerical basis alone (a kind of environmental recidivism). In addition, it is inevitable

that young people, given their values and perspectives, will evolve into political majority with increasingly lower thresholds of activation by future environmental problems. A major difference between the 1970 movement and conservationist movements of the past is that the redefined outcome of the 1970 movement is the view that environment is a problem, not just a value to be protected for practical use or aesthetic appreciation.

Exceptions to the Expected Findings

We have described but not explained the exceptions in the predicted age stratification of the attentive public during the "growth period" of the movement (Table 16). The data provide a limited opportunity to ask why the 38-42 age group was as highly mobilized as the youth and also why people aged 53-57 reflected higher interest than was expected.

People in the general age range of 33-42 reflected high rates of EMIP interest in all three surveys. Earlier, it was noted that in the 1968 survey middle age interest also corresponded with the age characteristics of conservation-naturalist formal voluntary organization membership.

It is possible to account for this exception if we consider that age-graded aspects of the social structure that are especially activated by the movement would sensitize the age groups participating in them. For example, institutions of higher learning are age graded. The "Earth Day" activity in 1970 was primarily a "teach-in," which influenced all levels of education. The involvement of educational institutions served to bring the effectiveness of the movement programs

and objectives to the attention of people who were members of these institutions--primarily students aged 18-22 in our data.¹

How does the social structure organize the interests of people aged 33-42 in such a way that their rates of EMIP mention become inflated? Beyond the point that conservation-naturalist FVO's are characterized by people in this age range, it may be noted that FVO membership in general is high among people in this age range (cf. Riley et al., 1968: 502). Although the environmental movement became notorious for its impact and success on college campuses, it is equally true that civic, church, and service FVO's adopted the "environmental cleanup" idea as a safe and charitable rally for 1970 and 1971. Indeed, it would be difficult to separate the complementary roles played by community-based FVO's and educational centers. Much of the success of the entire movement may be attributed to the fact that there existed a well-established and well-organized interest public concerned with wilderness aesthetics, recreation, and preservation (Morrison et al., 1972). There is reason to believe that the persistence of environmental interest in 1972 may have reverted to the organized efforts of such citizen organizations (Morrison et al., 1972; Morrison, 1973; National Center for Voluntary Action, 1973). Fortunately, we have the details of the FVO membership characteristics of people surveyed in 1972. This enables a limited evaluation of the idea that high EMIP mentions coincide with high FVO membership rates.

¹Since our sample contained so few students, however, this explanation is not interpreted to displace the general age hypothesis. Pittman's study amply documented the student role in the movement (1974).

Table 20 indicates that people who mentioned EMIP tended also to be FVO members. However, very little difference can be seen in the distribution of FVO membership by age among the promovement subsample. Although high FVO membership characterized all age levels of the promovement subsample, there did tend to be lower rates among the younger (18-29) and older (60+) age groups in the total sample. Because of the high FVO membership rates of people who mentioned EMIP, the data do not support the idea that the 33-42 age group's high EMIP rates can be attributed to such membership. It should be kept in mind that the movement lost its wide base of public support by 1972, when the FVO data are available (see "Sierra Club Forced to Cut Its Budget and Trim Staff," New York Times, February, 1972). If the data had been present for 1970, FVO membership could possibly have been shown to have exercised greater relative influence on people in this age range than on others. The problem of evaluating the age-FVO relationship is a complex matter, however, because younger people would undoubtedly have been enlisted in different kinds of FVO's (such as movement organizations) than older people.

The other exception found in the 1970 data is the greater than expected rate of interest among people aged 53-57. The rate cannot be dismissed as sampling variation because no single specific age within the range exhibited an exceptionally high percentage level.¹ It is

¹The slightly higher EMIP rate in 1972 for this age group can be attributed to sampling variation. People aged 57 years mentioned EMIP four out of 16 chances, giving this age a rate of 25 percent, which distorts the relative level of the entire group relative to other years.

<u>Age Level</u>	<u># Mentioning EMIP</u>	<u>N</u>	<u>%</u>
52	0	9	-
53	0	17	-
54	1	11	9.1
55	2	17	11.8
56	1	21	4.8

Table 20.--Formal voluntary organization membership^a among the promovement subsample and the sample by age (1972).
(Percentage)^b

Sample	Age				Total
	18-29	30-44	45-59	60+	
Promovement Subsample . . .	66.7	68.8	72.2 ^c	64.3 ^c	68.3
N	(33)	(32)	(22)	(14)	(101)
Total Sample .	58.6	64.6	62.1	50.6	52.6
N	(312)	(274)	(235)	(247)	(1068)

^aOrganizational memberships include the following categories of organizations: fraternal, professional, business, farm, religious, neighborhood, social, athletic, co-op, political, charity, veterans, civic, lobby, ethnic, union, and "other" groups. Activity level is also indicated by the respondent. This table does not use as data people disclosing they are "not very active" in the organizations of which they consider themselves members.

^bThe number of cases upon which the percentages are based is given in parentheses.

^cPercentages based on numbers equal to or less than 30 (approximately) are progressively subject to error due to random variation.

possible that people in this age range were uniquely threatened by either the specter of unemployment and economic depression stimulated by environmental controls or further government encroachment upon capital development opportunities for business and industry. Their high interest, reflected by the EMIP rates, is affectively the opposite of other age groups; it is anti- rather than proenvironmental. Two indicators of this possibility are available. First, we can ask if there is an unusual concentration of people in this age range who are in occupational categories we have defined by other criteria as "losers" (p. 91). Second, we can ask if there is an unusual concentration of people in this age range who favor what may be thought of as an anti-environmental position that "industry ought to be allowed to handle pollution its own way."

Table 21 shows the expected economic impact of environmental control legislation on occupations, by age. This is a very crude index, which is able to classify only a small number of a large variety of occupations. The 1970 measurement period is one in which economic impacts might not be expected to be highly visible to the public at large.¹ Nevertheless, the data indicated that the highest concentration of "losers" was in the 53-57 age group (Table 21).

<u>Age Level</u>	<u># Mentioning EMIP</u>	<u>N</u>	<u>%</u>
57	4	16	25.0
58	2	18	11.1
59	1	11	9.1
60	0	23	-

¹We believe the impacts became more powerful by 1972, but the sample N diminished in that year such that the index defined a subset of the population that was too small to warrant continued attention.

Table 21.--Expected occupational impact of environmental reform legislation by age (1970).
(Percentages)

Expected Occupational Impact	Age										
	18-22	23-27	28-32	33-37	38-42	43-47	48-52	53-57	58-62	63-67	63+
Losers	13.0	8.4	6.5	5.9	7.9	11.7	8.7	15.4	5.9	3.8	6.1
Unknown	81.3	85.8	82.7	85.7	82.7	79.7	85.5	78.8	80.5	84.8	86.5
Gainers	5.7	5.8	10.8	8.4	9.4	8.6	5.8	5.8	13.6	11.4	7.4
Total %	100	100	100	100	100	100	100	100	100	100	100
N	(123)	(155)	(139)	(119)	(127)	(128)	(138)	(104)	(118)	(79)	(163)

Table 22 shows the responses to the "pollution scale" by age. The antienvironmental scale values (5,6,7) were also most frequently expressed by people in the 53-57 age range. If interest in EMIP is inflated for this age group, there seems to be substantial indirect support for the idea that this age range, more than others, would reflect a higher number of EMIP mentioners who actually had in mind the opposite of what we normally consider to be favorable feelings about the environmental movement. The MIP item itself does not discern the difference between positive and negative affect as it relates to the subject matter (refer back to p. 109 for a comparison of the PS and MIP items).

Age, Environmental Bias, and Related Variables

Having shown that EMIP rates change as age varies, and change differently across time intervals, it remains to be determined if these differences are attributable to age itself or to other variables that happen to be covariates of age but are also likely to be instrumental in the perception of and interest in environmental problems.

Education

There is considerable reason to believe that education accounts for variations of environmental interest. In many respects, the environmental movement was a student movement. The vehicle that brought the movement to wide public attention was the "Environmental Teach-In," which was geographically located on educational campuses across the country. Colleges and universities were most conspicuous for their speakers and special programs, but grade schools and high schools

Table 22.--Responses to the pollution scale by age (1970). (Percentages)

Pollution Scale Values	Age									
	18-22	23-27	28-32	33-37	38-42	43-47	48-52	53-57	58-62	63-67 68+
"Force industry to stop polluting" . . (PS-1,2,3)	82.2	80.2	75.7	69.6	77.4	76.4	73.7	64.6	74.6	73.1 69.7
Undecided (PS-4) . . .	8.1	13.6	14.0	19.1	9.7	10.2	10.5	16.7	11.0	10.3 12.5
"Let industry handle pollution . . . its own way" (PS-5,6,7)	9.6	6.2	10.3	11.3	12.9	13.4	15.8	18.8	14.4	16.7 17.8
Total %	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.1	100.0	100.1 100.0
N	(135)	(162)	(136)	(115)	(124)	(127)	(133)	(96)	(118)	(78) (152)

were active as well. The "Weekly Reader" adopted the theme of environmental salvation, and environmental pollution was the focus of the 1970 national debate topic in high schools. From the standpoint of social-structural conduciveness, people involved in institutions of higher education could hardly avoid exposure to the movement.

While the movement ideology included many simplistic themes such as littering, recycling, and "bicycle ecology," its underlying rationale was scientifically abstract and not likely to gain widespread understanding or support. The more involved problematic theme of the movement focused on indirect social threats resulting from eco-system reaction to industrial toxicants which, in turn, were responses to social demands themselves. The more involved notion of the problem is likely to seem more impelling, but only to those who understand it. People with higher education were both more likely to be exposed to and understand the eco-system aspect of the movement ideology.

The MIP-type question seems likely to tap people who think of the intricate way in which environment is a problem, rather than those who are attentive to the movement issues at the level of more mundane problematic conditions, such as the profusion of nonreturnable bottles.

It might be argued that antimovement bias is also associated with education. As a social innovation, the movement ideology might be suspected of ulterior motives that are un-American, antidemocratic, or procommunist because of the frequently spirited rhetoric of environmentalists of varying degrees of extremist persuasion. Among the less well educated, any criticism of American social organization or suggestion that it needs to be changed might stimulate one of these

stereotypes. The more complex the brand of environmental reform communicated, the higher the probability that such negative reactions among the less well educated will result. Complex issues such as social-industrial reforms along lines that are compatible with the eco-system tend to incite fear, general hostility, and conspiracy theories among people who don't get the message. To the extent that the movement becomes perceived among the less well educated as a student movement or a movement of "elites" or "intellectuals," antagonism would be amplified.¹

Table 23 shows the zero order relationship between movement bias and education. Among people with high school education, pro- and anti-movement bias were equal in 1970. By 1972 the balance of bias shifted in favor of antimovement sentiment. Among people with college degrees, environmental bias was clearly more pro-movement for both years. By 1972, however, the proportion of pro-movement bias halved, while antimovement bias increased somewhat for this group. Among people with some college,

¹This argument focuses on the interaction that develops between the movement and the people. There was nothing inherent in the content of the movement program that most people couldn't understand. However, the message tended to be communicated, as with any movement, in ways that were inefficient among certain groups, resulting in the formation of resistance along certain lines. This is not inevitable, however. For example, ghetto residents live in the worst possible environments and should be easily recruited to the movement. Because the movement approached the problem from the global perspective, it neglected the already activated interests of this group and, in so doing, precluded the possibility of establishing a powerful coalition. As it turned out, many environmental reform programs of the Environmental Protection Agency (EPA) around 1972 began to take on the complexion of Department of Health, Education, and Welfare (HEW) activities. In the administration of the environmental movement's reforms, there were often ambiguous distinctions about when a program was better suited to the EPA (serving environmental special interest groups) or to the HEW (serving minority special interest groups). Yet the environmental movement became a competitor with the welfare rights movement.

Table 23.--Environmental bias by education: 1970-1972.
(Percentage)

Year and Bias	Education			
	High School or Less	Some College	College(+)	Total
<u>1970</u>				
Promovement . .	12.0	25.8	29.3	15.9
Antimovement .	12.2	10.5	6.3	11.3
No opinion . .	75.8	63.7	64.4	72.8
Total . . .	100.0	100.0	100.0	100.0
N	(1170)	(229)	(174)	(1573)
<u>1972</u>				
Promovement . .	8.2	11.3	14.2	9.5
Antimovement .	13.0	5.9	7.1	11.0
No opinion . .	78.8	82.8	78.7	79.5
Total . . .	100.0	100.0	100.0	100.0
N	(745)	(186)	(141)	(1072)

promovement bias was ahead of antimovement bias for both years but was less extensively endorsed than among people with college (+).

The population, however, was not evenly distributed according to education. Reflecting ever higher levels of average educational attainment in recent American history, younger people tend to be educated to higher levels than older people. Possibly, these educational differences might account for the differences that have been attributed to age alone. Tables 24 and 25 show the first order relationships between environmental bias and age when educational differences are held constant.

Among people with high school education or less in 1970, promovement bias continued to be age graded as in the zero order tables showing the distribution of promovement bias for all ages (see Table 24). The level of interest, however, was much lower than in the population at large. It was among the respondents with some college and beyond that high rates of promovement bias were found. Although the pattern of age graded differences in promovement bias among the lower educational category was linear and uninterrupted, the pattern of differences among the higher education category was less distinct. In the latter group, promovement bias was high for the young and decreased with increasing age except for the 38-47 age group. While this may be dismissed as an anomaly, it is also suggestive of a plausible exception to the findings to be taken up shortly. Generally, however, it is concluded that control for education changes only the level of interest

Table 24.--Promovement bias by age and education: 1970-1972.
(Percentages)^a

Year and Education	Age					Total	
	18-27	28-37	38-47	48-67	68+		
<u>1970</u>							
High school (-) . . .	17.5	13.6	13.0	11.1	9.6	12.7	
N	(189)	(184)	(185)	(387)	(156)	(1101)	
Some college(+) . . .	27.3	25.0	40.3	25.6	9.4	27.5	
N	(121)	(88)	(77)	(82)	(32)	(400)	
<u>1972</u>							
High school (-) . . .	8.4	11.1	11.2	6.6	6.4	8.5	
N	(131)	(135)	(107)	(242)	(94)	(709)	
Some college(+) . . .	14.8	8.6	12.9	14.5	5.0 ^b	12.7	
N	(122)	(58)	(62)	(62)	(20)	(324)	

^aThe number of cases upon which the percentages are based is given in the parentheses.

^bPercentages based on numbers equal to or less than 30 (approximately) are progressively subject to error due to random variations.

Table 25.--Antimovement bias by age and education: 1970-1972.
(Percentages)^a

Year and Education	Age					Total
	18-27	28-37	38-47	48-67	68+	
<u>1970</u>						
High school (-) . . .	8.5	11.5	14.8	16.9	20.7	14.6
N	(177)	(165)	(176)	(344)	(121)	(983)
Some college(+) . . .	6.7	9.4	9.3	13.6	3.5 ^b	9.0
N	(120)	(85)	(75)	(81)	(29)	(390)
<u>1972</u>						
High school (-) . . .	6.6	8.8	14.3	19.4	30.0	15.2
N	(122)	(125)	(98)	(222)	(70)	(637)
Some college(+) . . .	4.1	8.6	9.8	6.6	5.6 ^b	6.6
N	(121)	(58)	(61)	(61)	(18)	(319)

^aThe number of cases upon which the percentages are based is given in the parentheses.

^bPercentages based on numbers equal to or less than 30 (approximately) are progressively subject to error due to random variations.

in the movement but not the pattern of decreasing interest in the movement with increasing age levels.

In 1972, however, the effect was quite different. Controlling for educational differences reduced the gradation of environmental interest across age categories to obscurity. The subtle decline that persisted is insufficient to warrant the conclusion that the effect of age differentiation in promovement bias persisted into 1972.

Antimovement bias reflected essentially the opposite characteristics of promovement bias (See Table 25). In 1970, antimovement bias increased as age increased among people with high school or less education. However, the general levels of pro- and antimovement bias were approximately equivalent in magnitude. Among people with higher levels of educational attainment, antimovement bias was not only much lower, generally, but reflected a gradient opposite that of promovement bias. In 1972 a marked difference between pro- and antimovement bias emerged. Antimovement bias among those with less education grew to a level that nearly matched the 1970 promovement support among the college educated. Moreover, the pattern of antimovement gradation was even steeper than without the control on education. Among people with college education in 1972, there persisted a very subtle upward slope of antimovement bias with increasing age.

In general, age differences in proenvironmental bias were not eliminated in 1970 when education was controlled; indeed, age gradation still characterized the majority of the sample population. In 1972, however, age differences in promovement bias were reduced to obscurity. Antimovement bias was unaffected by educational controls. Among the

less well educated group, even sharper uniform variations in antimovement bias occurred as age increased. Among the group with higher education, such age differences as persisted were quite small for both years, though tending to increase somewhat as age increased. These relationships are clearly graphed in Figures 14 and 15.

The 1970 peak of promovement interest among the middle aged with higher levels of educational attainment is of particular interest. How could such awareness disappear so quickly after having risen to such heights--the middle-aged group seems almost more fickle than youth! While no additional empirical data can be offered to account for this difference, it may be noted that nonconservation FVO's played a key role in the mobilization of the movement in 1970. People of middle age levels and higher education tend to be more involved in FVO's (Riley, 1968:502; Smith and Freedman, 1972:154). To the extent that entire organizations (church groups, civic organizations, business and professional leagues, etc.) adopted movement-related activities, members of this element of the population relatively more than groups with other age/education characteristics, were drawn momentarily into the attentive public, more than might have been expected according to the age hypotheses alone. Pittman (1974) found approximately 41.6 percent of the 1970 correspondents with Environmental Teach-In, Inc. were members of organizations involved with environmental programs. Of these, 25 percent were movement organizations (conservationist and ecology groups), and 16.6 percent were conventional FVO's (civic, business, and professional organizations). As the attention of conventional FVO's and their members turned to other issues within the popular culture

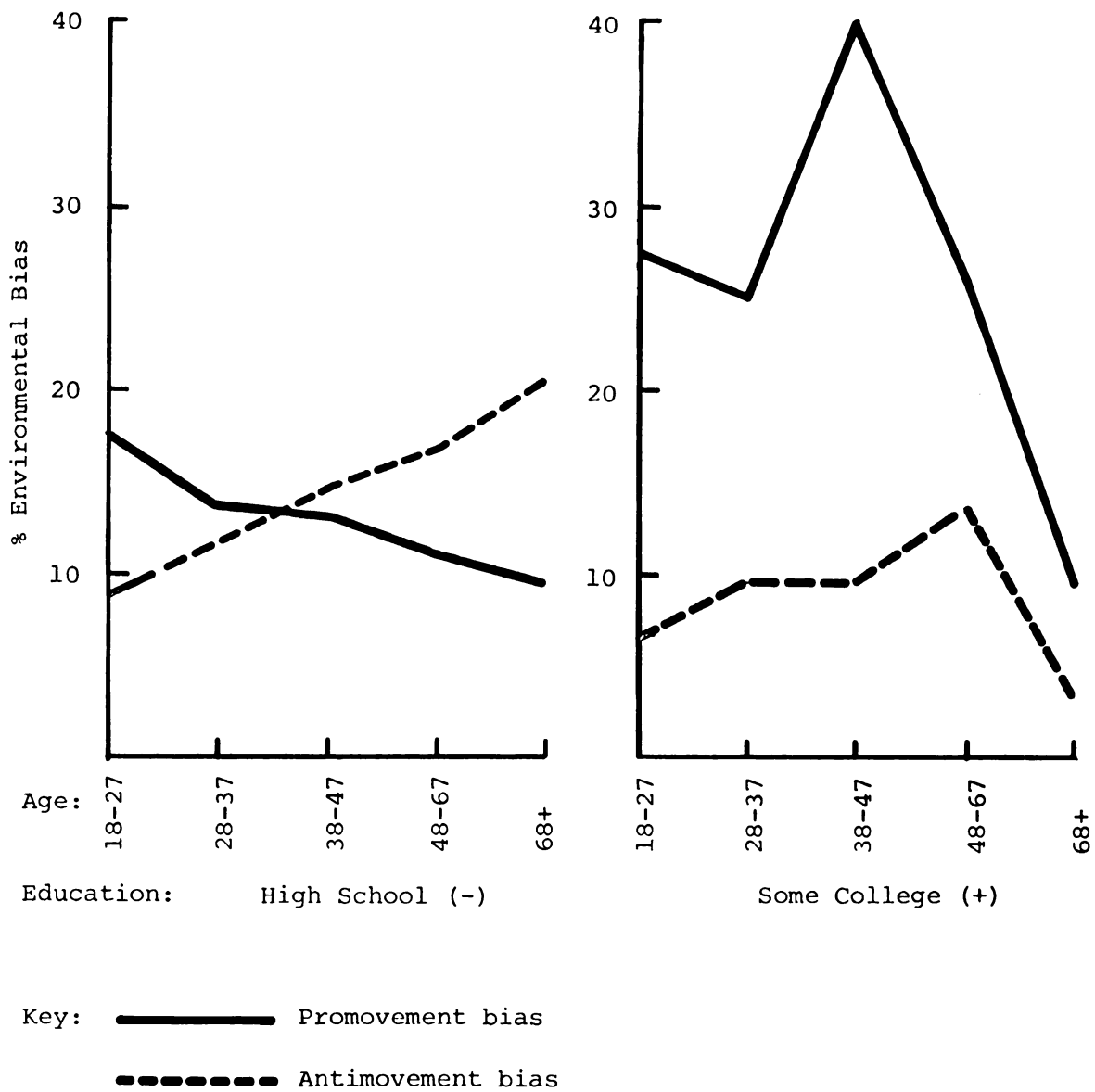


Figure 14.--Environmental bias by age and education, 1970.
 (Derived from Tables 24 and 25)

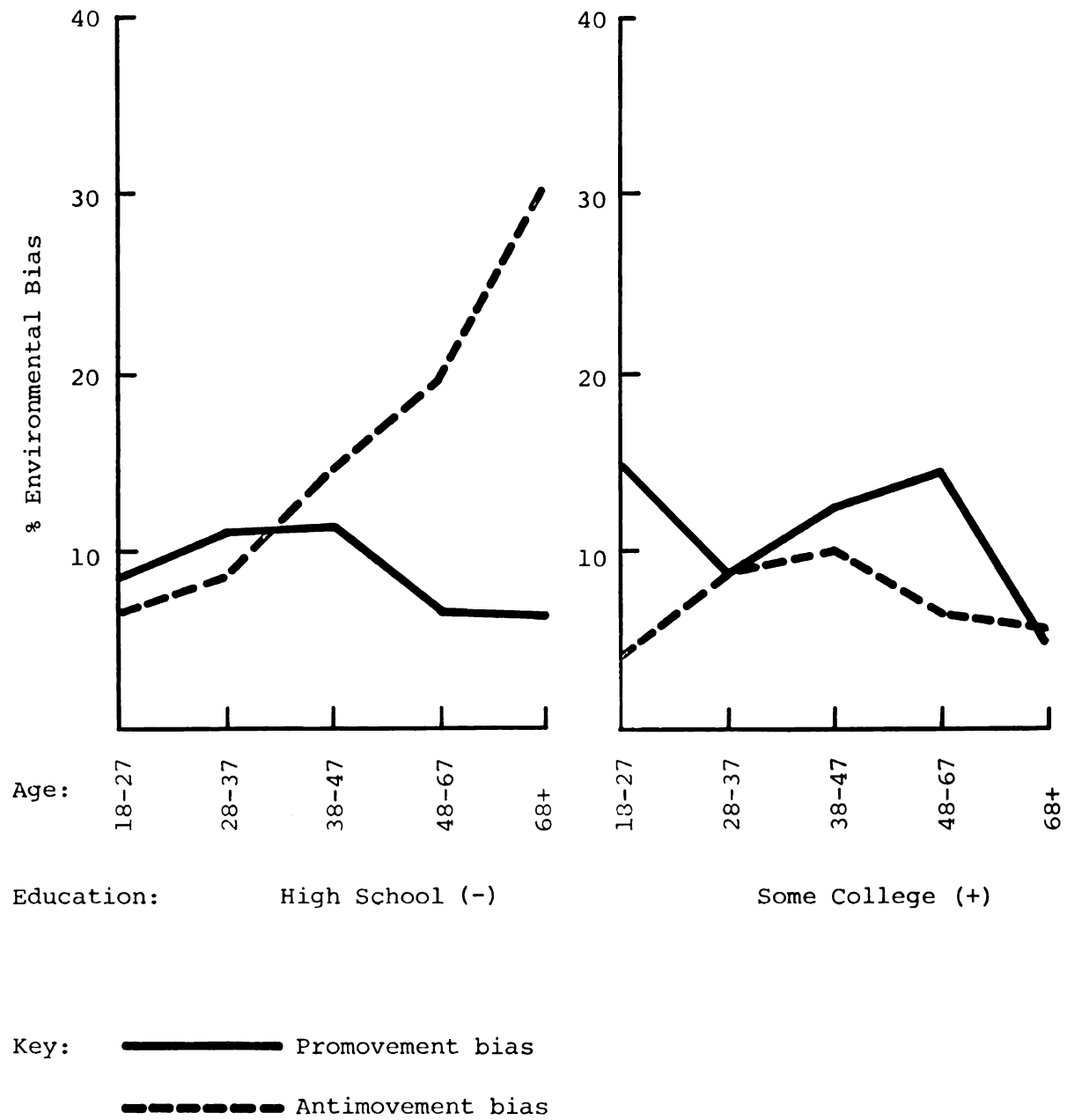


Figure 15.--Environmental bias by age and education, 1972.
(Derived from Tables 24 and 25)

in 1972, the rates in these categories dropped back into the range one would expect from the distribution of other age groups. Such temporary recruitment of entire collectivities could account for the great change of promovement interest within the age group most likely to have been involved in conventional FVO's.

Occupation and Income

The environmental movement offered both an opportunity and a threat to the economic structure of the country. While the opportunities for expanding corporate interests in the growing pollution control and material reclamation industries were evident (Gellen, 1970), corporate interests in many activities were threatened by altered production costs and loss of freedom due to additional governmental intervention on behalf of the public interest (Rickson and Simpkins, 1972). The throes of industrial resistance were reflected by a large segment of the public who were activated through various linkages such as the labor and consumer markets. While the United Auto Workers leadership, for example, initially took a position of strong support for the spirit of environmental reform goals (Woodcock, 1970), that position had to be clarified when the impacts of the means selected to accomplish the reforms made it evident that, in many cases, unemployment would result from environmental control legislation (Woodcock, 1971, 1973). There is little indication that the line worker had any esoteric infatuation with environmental globalisms; rather, reforms tended to be envisioned in terms of improving the safety and quality of the job environment¹

¹As the popularity of words like "environment" and "ecology" spread, they were adopted by many agencies for a wide variety of ends, ranging from those associated with the movement itself to promotional

(Walinsky, 1970). There is little reason to believe that blue-collar labor and the economic middle class, generally, would have much interest in the environmental movement; however, the issue of income and movement bias is more complex than this argument would make it appear.

An important aspect of income is its source. Anything that threatens the very foundation of one's economic security would be expected to receive negative evaluation. Because of the differential impact of environmental control legislation on the economy, people employed in certain industries would be expected to suffer from environmental controls on such industries more than others. Economic impacts should be reflected in the relative pro- and antimovement bias indicators for people employed in selected industries. Of course, some industries might be said to gain from the rise in environmental interest because of the particular roles they play; i.e. legal and educational occupations might be expected to have more exposure to and interest in developing environmental issues. Table 26 shows a rough classification of occupations according to the expected impact of environmental programs, as discussed in Chapter III. Rates of mention of the pro-movement bias indicator (EMIP) and the antimovement bias indicator (PS-5,6,7) are shown for both the occupation of the respondent and the head of household in 1970. Even a crude classification of occupations produces a difference between the pro- and antimovement sentiment of the population sampled.

advertising, in some cases advertising of products which were ecologically harmful in the eyes of environmentalists (cf. Council on Economic Priorities, 1971).

Table 26.--Environmental bias by occupational impact (1970).
(Percentage)^a

Environmental Bias	Occupational Impact ^b					
	Respondent's Occupation			Head of Household's Occupation		
	Threat	Gain	Other	Threat	Gain	Other
Promovement . .	9.1	22.8	15.8	13.8	25.2	16.2
N	(66)	(136)	(833)	(116)	(115)	(1119)
Antimovement. .	11.7	7.8	13.4	9.8	7.3	13.2
N	(60)	(128)	(763)	(102)	(109)	(1028)

^aThe number of cases upon which the percentages are based is given in the parentheses.

^bRefer to page 91 for a discussion of this variable.

In addition to occupational distinctions, size of income suggests several reasons why differentials in movement bias might be found. As earned income increases, desire for aesthetically high quality surroundings increases. In recent years, however, many urban areas are more and more hard pressed to provide the expected level of aesthetically satisfying living (adequate uncrowded housing, open spaces, natural areas) while maintaining the conveniences of urban life (markets, services, centrality). Over-crowded central cities are spilling residents into outlying areas. High income earners have to travel farther out to escape the urban smog, high-crime districts, and urban deterioration.¹ Even country life is plagued with urban land fills, polluted streams, and eutrophication of open water areas. Although it is true that these developments did not occur over night, the effect of the environmental movement was to focus the attention of the public, especially the upper and upper-middle income public, on these problems over a short period of time (cf. Morrison et al., 1972: 272-273). Suddenly realizing the deprivation resulting from the benefits with which high income is often associated, the higher income group might be more sensitive to the movement reforms if not the romantic naturalism of the movement's ideological imagery.

What is likely to capture the interests of the affluent, however, is likely to be interpreted by the poor as a distraction to their more basic problem. The poor would not be expected to empathize with

¹To many white, middle-class residents deteriorating urban environmental conditions are associated with equal opportunity housing, which in the 60's began diffusing minority group concentrations into traditionally segregated areas.

the exotic goals of environmentalists, because the problem of basic survival consumes their attention. Deterioration is nothing shocking to the ghetto resident. Why should the poor be concerned about saving an environment of beauty, since they rarely venture out of the urban pockets of decay?

What is likely to capture the interests of the affluent is also likely to be rejected (or ignored) by the aspiring middle-income group. To the extent that the middle-income group is thoroughly caught up in the culture of consumption, their values lie in the material productions of high-intensity industrial organization. They are, as well, more likely to be economically dependent on that material-production-consumption culture than either the affluent or the poor.

Table 27 indicates that promovement bias increased with income increases, while antimovement bias decreased with income increases in both 1970 and 1972. Promovement bias declined in 1972, however, for all age groups but especially among the upper-middle income groups (\$10-14,999 category off 12.0 percentage points). Antimovement bias stayed about the same among all income groups. The least opinionated group in 1972 were those in the upper-middle income group. (This roughly corresponds with the least opinionated educational group among those with some college training.)

Clearly, income level is a strong determinant of the kind and degree of environmental bias. Before asking if income is so powerful as to obscure the age effects already demonstrated, consideration must be given to the complex interaction that may be expected of various combinations of income and age.

Table 27.--Environmental bias by income: 1970-1972.
(Percentages)

Year and Bias	Income				Total
	\$4999(-)	\$5-9999	\$10-14,999	\$15,000(+)	
<u>1970</u>					
Promovement . .	11.8	13.6	20.4	23.1	16.0
Antimovement. .	12.5	11.0	11.0	8.9	11.1
No opinion . .	75.7	75.4	68.6	68.0	72.9
Total . . .	100.0	100.0	100.0	100.0	100.0
N	(457)	(493)	(344)	(225)	(1519)
<u>1972</u>					
Promovement . .	7.0	8.8	8.4	14.0	9.4
Antimovement. .	12.7	11.8	10.2	9.5	11.2
No opinion . .	80.3	79.4	81.4	76.5	79.4
Total . . .	100.0	100.0	100.0	100.0	100.0
N	(259)	(340)	(225)	(222)	(1046)

Young people, generally, have been shown to have higher interest in environmental problems. Variations in income levels among the young would not suggest any reason why environmental interest should vary, except for the young, middle-income group. Those starting off on a professional career that results in upward social mobility would be expected to be found in this middle income group relatively more than young people in the lower and higher income levels. This socially mobile element might be expected to be somewhat less attentive to political and social issues, because of the distractions of middle-class social climbing. To the extent that such a group exists, it may be considered more oriented to the existing avenues of social advancement, i.e. positions in business and industry, progrowth investment and development enterprises, and the products of the stereotyped "successful" patterns of living. Abrams noted that one of the most exploitable periods in the consumer life-cycle is "early adulthood, between starting work and having children . . . because it is not overshadowed by the memory of earlier periods when income was committed" (1972:102). Movement reform goals would be less salient to this group, inasmuch as their self-interests are not fostered by reforms. The poor and the wealthy among the young would be more likely to have self-interests sympathetic to the movement's reforms, although for different reasons. The youthful poor might see in the reforms opportunities for improving their access to free public goods in such forms as better mass transit, low-income housing, development of public recreation areas, and a general reduction of status competition inherent in an intensive industrial society. The wealthy young are more likely to have higher levels of education, which

make them more likely to be exposed to the appeals of the movement. Their higher income tends to free them from status striving and, in 1970, would not obviously be threatened by economic costs of reforms. One might guess that this group would tend to have professional occupations that would mature in economic returns early in the life cycle of the individual, e.g. teachers and white-collar, low-level management.

As we consider higher age levels, income would be expected to weigh more heavily against interest in environmental reforms. While low income among the young may not be expected to be problematic for this group because of the anticipation of later mobility and income increases, low income among older people is increasingly more indicative of a syndrome of poverty. Threats to older people's income would be more deeply felt, and the putative benefits of social reform would be less likely to gain acceptance as desirable changes. Older people with lower incomes would be expected to have lower levels of education as well, which would decrease the opportunity of exposure to and understanding of the movement ideology. This group would not equate movement reforms with more immediate needs of adequate housing, sustenance, and medical attention.

The joint consideration of income and age reduces to this basic point: The youthful poor can identify with reform goals relatively more than the aged poor, because of the future orientation possible at various age levels and with certain economically limited horizons. To the young, the future is a distant place into which many goals and problems of the present can be projected. The future becomes a repository of both ambitions and frustrations. Income limitation is one such problem.

To the aged, the future is less distant. Present conditions cannot be deferred for long. The relative immediacy of the problem of low income becomes greater as age increases. Living on the margin of costs and income is more threatening with increasing age, and consumes more attention for this group than for the young. Both environmental reform goals and means tend to involve long-range planning and distant effects, which are less likely to be appreciated by older people. Older people with incomes above the poverty level are more likely to develop interest in environmental reforms. It is an empirical question, however, whether the reduction of material dependency among middle- and upper-income older people is sufficient to be detected by the indicators used.

In regard to promovement bias in 1970 (see Table 28) for low-income people, the rates of the promovement indicator declined in magnitude as age increased. A similar decline was present among the middle-income group, although less pronounced. Among the upper-income group promovement interest decreased very gradually as age increased. In 1970 controls for income do not eliminate the decrease of promovement bias among increasing age levels. In 1972, however, the picture is less clear. While a definite decrease of promovement bias persisted with increasing age levels for the lower- and upper-income categories, the middle-income category reflects a curvilinear pattern with high promovement bias characteristic only of middle-aged people. While interest in environment remained about constant from the 1970 level for this group, younger and older people in the middle-income category showed a marked decline from their high 1970 levels. In 1972 controls

Table 28.--Promovement bias by age and income: 1970-1972.
(Percentages)^a

Year and Income	Age					Total	
	18-27	28-37	38-47	48-67	68+		
<u>1970</u>							
\$4999(-)	22.8	14.3	21.2	8.3	9.1	12.9	
N	(79)	(42)	(33)	(132)	(132)	(418)	
\$5-9999	17.7	13.6	17.8	9.1	15.4	14.0	
N	(130)	(81)	(73)	(154)	(39)	(477)	
\$10,000(+)	24.7	20.9	22.4	22.0	--	21.9	
N	(93)	(139)	(147)	(168)	(10)	(557)	
<u>1972</u>							
\$4999(-)	12.3	15.0 ^b	7.1 ^b	2.5	6.8	7.4	
N	(57)	(20)	(14)	(80)	(73)	(244)	
\$5-9999	5.8	9.0	13.6	11.7	--	8.8	
N	(103)	(67)	(44)	(94)	(20)	(328)	
\$10,000(+)	17.4	10.5	12.0	8.8	--	11.5	
N	(86)	(105)	(108)	(125)	(11)	(435)	

^aThe number of cases upon which the percentages are based is given in parentheses.

^bPercentages based on numbers equal to or less than 30 (approximately) are progressively subject to error due to random variation.

for income do not eliminate the age gradation of promovement bias among the poor and wealthy.

The picture for antimovement bias is well defined (see Table 29). In 1970 antimovement bias increased as age increased for all levels of income (ignoring the 68+ category, which is numerically slight). Antimovement bias generally was higher among the lower-income group than among the middle- and upper-income groups. In 1972 the slope of increasing antimovement bias with increasing age steepened for all income groups.

Age gradation of both pro- and antimovement bias is not eliminated by first order control of income differences. These relationships are clearly graphed in Figures 16 and 17.

Multiple Controls

To this point we have seen that age, education, and income all contribute to the development of environmental bias. Controls on education and income served to specify in greater detail the extent to which age accounts for movement bias. Age, education, and income should not be considered as competing variables. In the theoretical discussion, age itself was conceptualized as an indicator of relative social commitment. Education and income can be considered in the same way to be indicants of varying degrees of commitment to society (commitment in terms of the status quo, as earlier stipulated). Greater recency and primacy of the education received by an individual can predispose him to innovation and receptivity to change. In a somewhat different way, both high and low income levels can avail people to innovative changes either because they have nothing to lose by change since

Table 29.--Antimovement bias by age and income: 1970-1972.
(Percentages)^a

Year and Income	Age					Total
	18-27	28-37	38-47	48-67	68+	
<u>1970</u>						
\$4999(-)	8.7	10.5	25.0	16.2	20.4	16.2
N	(69)	(38)	(32)	(111)	(103)	(353)
\$5-9999	5.5	16.2	7.6	17.6	19.4	12.4
N	(127)	(68)	(66)	(142)	(31)	(434)
\$10,000(+)	8.7	8.2	12.6	13.2	--	10.8
N	(92)	(134)	(143)	(159)	(9)	(537)
<u>1972</u>						
\$4999(-)	1.8	15.8 ^b	16.7 ^b	23.5	20.8	15.9
N	(55)	(19)	(12)	(68)	(53)	(207)
\$5-9999	7.3	9.8	10.3	17.8	38.9 ^b	13.2
N	(96)	(61)	(39)	(90)	(18)	(304)
\$10,000(+)	5.9	6.9	13.3	12.5	27.3 ^b	10.4
N	(85)	(102)	(105)	(120)	(11)	(423)

^aThe number of cases upon which the percentages are based is given in parentheses.

^bPercentages based on numbers equal to or less than 30 (approximately) are progressively subject to error due to random variation.

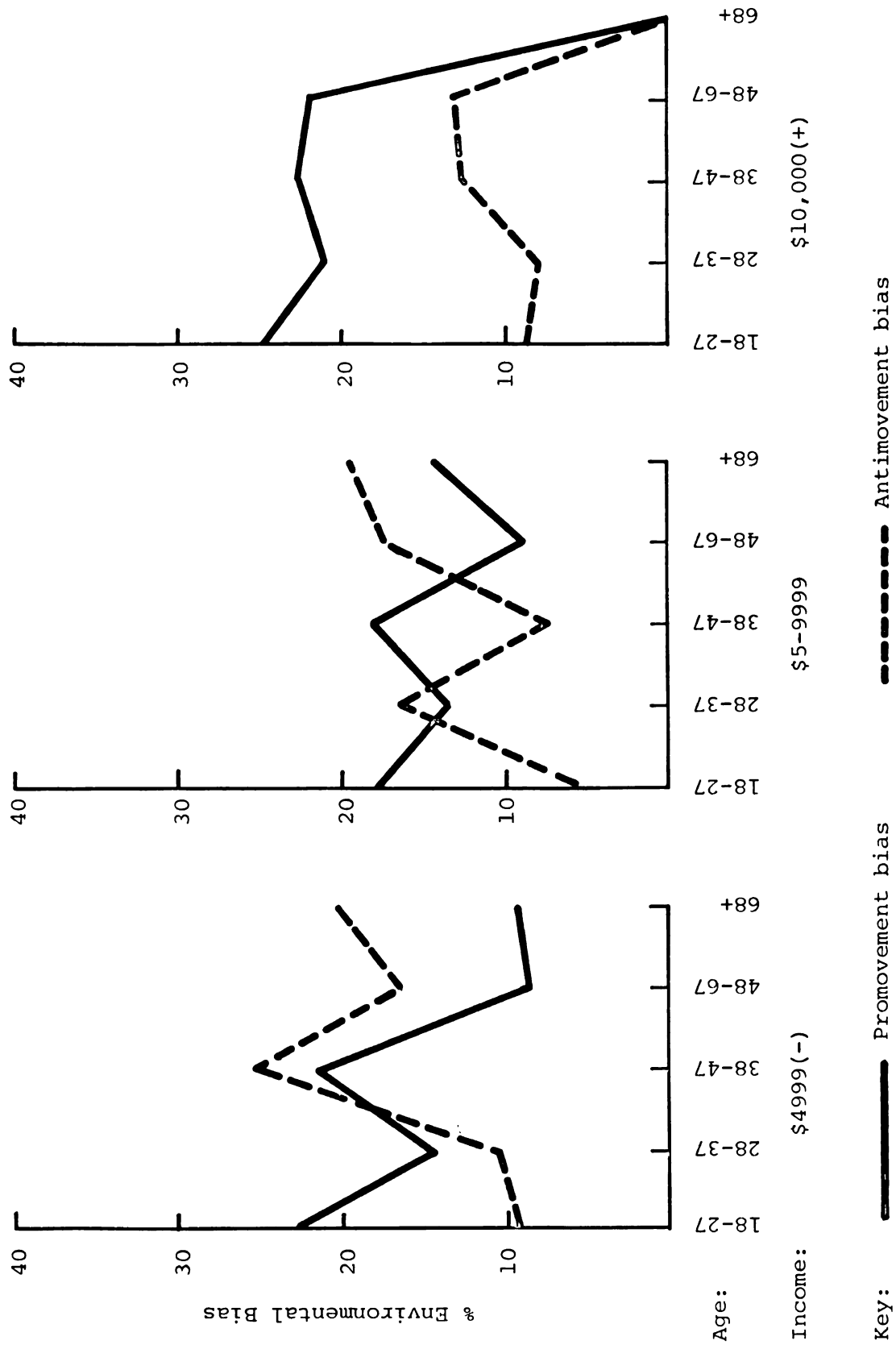


Table 16.--Environmental bias by age and income, 1970. (Derived from Tables 24 and 25)

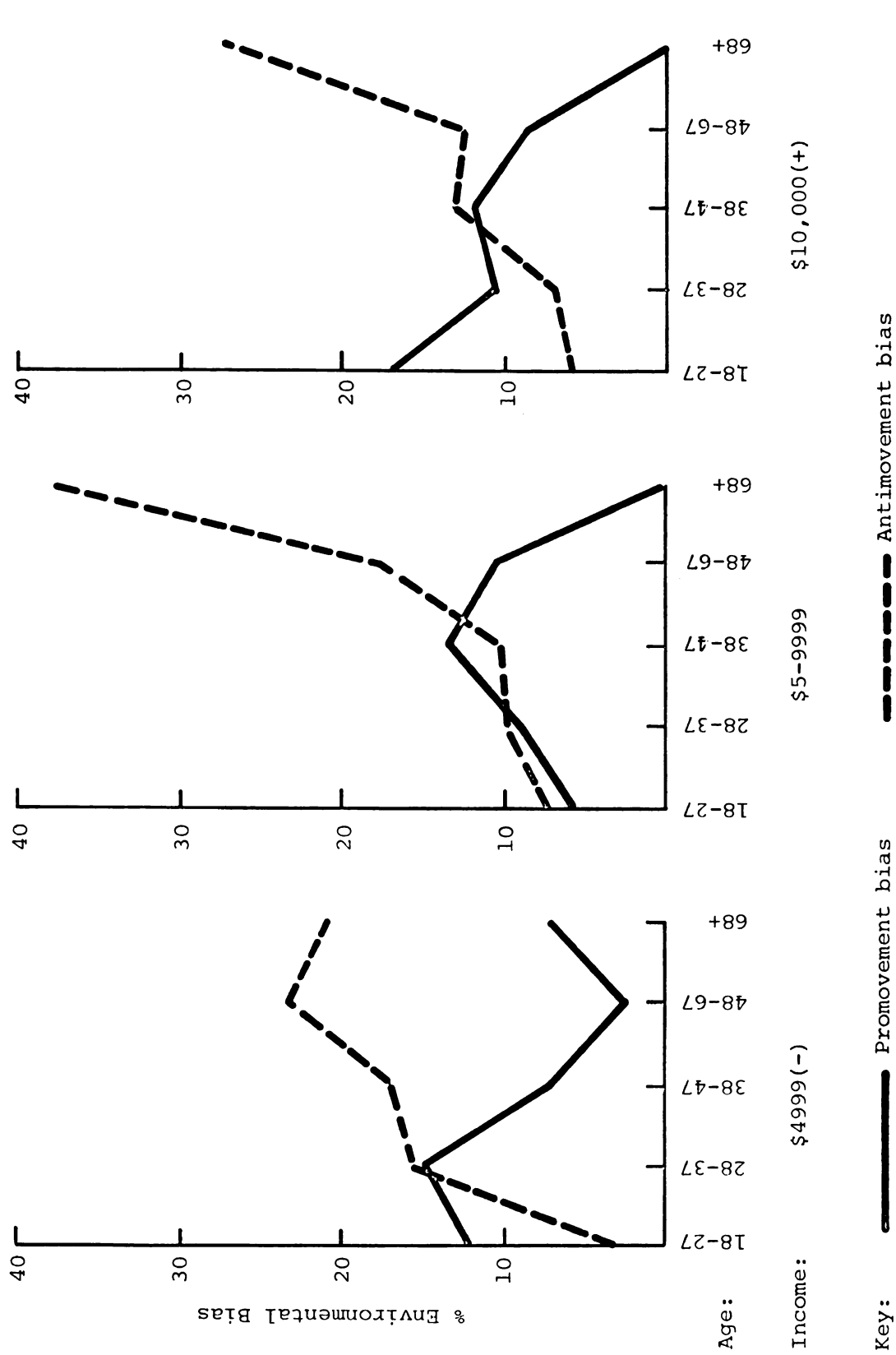


Table 17.--Environmental bias by age and income, 1972. (Derived from Tables 24 and 25)

their lot could not possibly be worsened (the poor) or because no change could conceivably cost them anything they are not willing to gamble (elements of the affluent). Certainly, in the case of studying social change, we should never want to start thinking in terms of either this or that variable as being dominant generally because in the course of dynamic events the power of a variable to account for what transpires is fleeting. Age, for example, would be called the best predictor (in the national context) for 1970, but its relevancy had eroded by 1972.

It is desirable to consider the joint effects of the variables under consideration to arrive at a summary of the combined effects of several variables. A second order table of simultaneous controls is provided in Table 30.¹ The table is divided into a left-hand side for people reflecting promovement bias and a right-hand side for people with antimovement bias. Each side of the table can be thought of as composed of stereotypes of 18 social groups for whom the respective rates of bias are indicated; e.g., from poor, young people with high school levels of education to affluent, older people with some college or beyond. The table is arranged so that the vertical dimension constitutes a rough socioeconomic scale insofar as socio-economic standing is indicated by education and income. This amounts to a rough index by most standards, but it has an advantage for our purposes in that it is not corrected for age differences. Four of the cells in each half of the

¹Because of the small N of the 1972 study, simultaneous controls can be shown for 1970 only.

Table 30.--Environmental bias and age, education, and income (1970). (Percentages)^a

Education and Income		Environmental Bias					Antimovement Bias						
		Promovement Bias			Total	18-33	Antimovement Bias						
		18-32	33-52	53+					33-52	53+	Total		
High School and Less	\$4999(-)	.	.	.	.	13.0	12.2	8.4	10.1	8.9	18.1	20.0	17.4
	N	.	.	.	.	(69)	(74)	(214)	(357)	(56)	(83)	(155)	(294)
	\$5-999	.	.	.	.	15.3	10.4	10.0	11.9	7.0	14.5	20.6	13.2
	N	.	.	.	.	(124)	(145)	(110)	(379)	(115)	(159)	(68)	(342)
	\$10,000(+)	.	.	.	.	19.8	13.2	18.8	16.3	11.8	13.3	11.9	12.7
N	.	.	.	.	(86)	(159)	(80)	(325)	(85)	(180)	(42)	(307)	
	Total	.	.	.	.	16.8	11.9	10.9	12.6	9.0	14.7	18.9	14.3
	N	.	.	.	.	(279)	(378)	(404)	(1061)	(256)	(422)	(265)	(943)
Some College and Beyond	\$4999(-)	.	.	.	.	33.3	50.0 ^b	15.8 ^b	30.0	3.0	37.5 ^b	5.6 ^b	8.5
	N	.	.	.	.	(33)	(8)	(19)	(60)	(33)	(8)	(18)	(59)
	\$5-9999	.	.	.	.	23.9	26.1 ^b	17.9 ^b	22.7	9.1	13.0 ^b	8.3 ^b	9.9
	N	.	.	.	.	(46)	(23)	(28)	(97)	(44)	(23)	(24)	(91)
	\$10,000(+)	.	.	.	.	28.2	34.0	22.0	29.8	8.3	8.3	7.7 ^b	8.3
N	.	.	.	.	(85)	(106)	(41)	(232)	(84)	(120)	(26)	(230)	
	Total	.	.	.	.	28.0	33.6	19.3	28.0	7.4	10.6	7.4	8.7
	N	.	.	.	.	(164)	(137)	(88)	(389)	(161)	(151)	(68)	(380)

^aThe number of cases upon which the percentages are based is given in parentheses.^bPercentages based on numbers equal to or less than 30 (approximately) are progressively subject to error due to random variation.

table have been encircled to draw attention to the clusters of high pro- and antimovement bias.

The level of promovement bias decreased as age increased for a majority of the population, although among the educated age effects were obscured, if not absent, in the case of the multiple control table. Similarly, the level of antimovement bias increased as age increased for a majority of the population sampled. Unfortunately, a reliable evaluation of the level of the indicators among the educated category is not possible.

The encircled clusters illustrate perfectly the vector of forces that determine the direction and intensity of movement bias. These variables combine in such a manner as to make promovement bias especially likely among the young, affluent, and educated. Antimovement bias was already detectable in 1970 among the older, poorer, less well educated element of the population.

From our discussion of the zero order tables (pages 153 and 166) and the changes they reflect from 1970 to 1972, it can be concluded that there is a trend for the promovement support base among the young, educated, and affluent to be shrinking while antimovement sentiment among the aged, poor, and less well educated remained constant. By 1972, overall antimovement bias had become stronger than promovement bias. This change empirically confirms what was predicted by Morrison et al. (1972) and what became obvious to many during the energy shortage of 1973.

Covariates of Environmental Bias

Are there other variables of possible theoretical or empirical interest that might influence the direction and intensity of environmental bias? Table 31 lists the respective levels of pro- and antimovement bias for a variety of factors that could conceivably be linked with the movement. No sizable difference can be attributed to sex for either indicator in 1970 or 1972. Promovement bias is much more on the minds of white people than black people (Morrison, 1973); however, antimovement bias is about as common among blacks as among whites. People raised in the country tended to reflect lower promovement bias in 1970 and higher antimovement bias for both years. This corresponds with the lower interest in the movement reflected by metropolitan/nonmetropolitan differences in 1970. This suggests that the movement was particularly appealing to people who may be said to be suffering from natural setting deprivation relative to the pristine images of the movement propaganda. Of course, objective deterioration because of urban blight, water and air pollution would be more salient to urban dwellers as well. To the extent that the movement is equated with urban reforms and suggests more intensive use of rural areas, it might be resented among rural people as indicated by the level of antimovement bias among people raised in nonmetropolitan areas.

In terms of national region, several differences seem noteworthy. Pacific States led other areas in the proportion of people who were pro-movement in 1970. The Mountain States region,¹ however, was the only

¹Question formats and codes for all data may be found in Appendix C.

Table 31.--Environmental bias by year for selected variables.^a (Percentages)^b

Variable	Year							
	1970				1972			
	Movement Bias		Movement Bias		Movement Bias		Movement Bias	
	% Pro-	% Anti-	% Pro-	% Anti-	% Pro-	% Anti-	% Pro-	% Anti-
Sex								
Men	16.0	(671)	12.8	(624)	9.5	(453)	11.4	(431)
Women	17.0	(842)	13.1	(756)	10.1	(583)	13.1	(526)
Race								
White	17.8	(1340)	13.0	(1233)	10.4	(921)	12.3	(860)
Black	5.3	(151)	13.2	(179)	4.0	(99)	9.6	(83)
Where Raised								
Country	11.6	(536)	15.3	(463)	9.8	(367)	18.2	(313)
Town	19.7	(366)	14.2	(344)	10.8	(223)	11.3	(213)
Small city	17.3	(220)	11.2	(205)	8.0	(199)	8.8	(193)
Large city	19.4	(356)	10.1	(337)	2.6	(218)	9.5	(210)
Where Living								
Metropolitan	17.0	(932)	11.4	(865)	Not Available			
Nonmetropolitan	15.8	(581)	15.5	(515)				
Region								
New England	16.7	(90)	16.1	(87)	5.6	(71)	6.9	(72)
Middle Atlantic	13.2	(234)	12.5	(216)	10.7	(149)	12.9	(139)
East North Central	14.5	(270)	11.7	(248)	10.0	(180)	9.9	(172)
West North Central	21.6	(171)	16.7	(150)	18.3	(117)	15.3	(98)
Solid South	12.5	(386)	17.0	(341)	7.6	(264)	13.3	(233)
Border States	7.1	(127)	10.6	(113)	3.2	(93)	11.8	(85)
Mountain States	15.9	(44)	7.9	(38)	18.0	(39)	21.1	(38)
Pacific States	33.5	(191)	5.9	(187)	17.1	(123)	11.7	(120)
Party Identification								
Strong Dem.-1	15.5	(296)	18.7	(268)	8.1	(160)	14.1	(149)
2	15.6	(352)	11.2	(322)	6.8	(250)	13.6	(220)
3	16.9	(160)	8.2	(146)	10.2	(118)	7.6	(119)
4	14.6	(198)	13.0	(177)	10.6	(142)	9.8	(123)
5	17.1	(123)	10.2	(118)	16.7	(102)	5.8	(103)
6	18.6	(226)	11.8	(204)	12.6	(143)	16.2	(130)
Strong Rep.-7	19.7	(142)	16.0	(131)	8.2	(110)	16.7	(102)
Liberal/Cons. Scale								
Extremely liberal					--	(12)	8.3 ^c	(12)
Liberal					13.2	(76)	4.1	(73)
Slightly liberal					18.4	(114)	2.8	(109)
Moderate					8.8	(286)	13.5	(274)
Slightly conservative					12.8	(141)	9.2	(141)
Conservative					6.5	(106)	17.3	(104)
Extremely conservative					18.2 ^c	(11)	18.2 ^c	(11)

^aQuestion format and codes for these variables may be found in Appendix C.

^bThe number of cases upon which the percentages are based is given in the parentheses.

^cPercentages based on numbers equal to or less than 30 (approximately) become progressively subject to error due to random variation.

one to reflect an increase in promovement bias between 1970 and 1972. In 1970, only the Solid South and nearby Border States reflected greater antimovement than promovement bias. By 1972, however, the balance of interest had shifted against promovement bias in all but the East North Central and Pacific States. If both high pro- and anti-movement indicator levels in 1972 are any sign of social conflict, the Mountain States seem more polarized than any other area.

For both 1970 and 1972, there was a slight tendency for people who were promovement to identify with the Republican party. Antimovement bias, however, was not clearly cleaved along party lines. In 1972 another indicator was available, which suggests that people who defined their political outlook as conservative as opposed to liberal tended to be promovement. People with antimovement bias also regarded themselves as conservative on this scale.

All of these extraneous variables may be discounted as theoretically relevant contributors to the relationship between age and environmental bias, with the possible exception of the indicators of political conservatism and liberalism. The slight association indicated here might develop suggestive differences if age were controlled. Table 32 indicates what happened to movement bias among people who identified with the Republican and Democratic political parties as stratified by various age levels. In 1970, older Republicans between 38-67 and Democrats over 68 tended to be more proenvironment. In 1972 young Republicans continued to reflect higher interest in environmental problems than did older Republicans and Democrats generally. Antimovement bias was largely unaffected by political party identification.

Table 32.--Environmental bias by age, controlling for party identification (1970). (Percentages)^a

Environmental Bias	Party Identification	Age					
		18-27	28-37	38-47	48-57	58-67	68+
Promovement	Democratic . .	23.2	18.2	20.1	11.6	6.8	12.2
	N . .	(151)	(137)	(154)	(146)	(117)	(98)
	Republican . .	23.2	18.4	24.7	20.0	17.1	5.6
	N . .	(95)	(98)	(73)	(75)	(76)	(71)
	Total . . .	21.3	17.2	21.0	15.9	11.0	9.5
	N . .	(310)	(273)	(262)	(251)	(218)	(190)

Antimovement	Democratic . .	9.5	7.9	12.4	19.3	16.0	17.6
	N . .	(147)	(127)	(145)	(135)	(106)	(74)
	Republican . .	6.6	12.1	12.7	18.2	8.8	20.3
	N . .	(91)	(91)	(71)	(66)	(68)	(64)
	Total . . .	7.8	10.8	12.9	17.2	15.4	18.0
	N . .	(296)	(250)	(248)	(227)	(195)	(150)

^aThe numbers upon which the percentages are based are given in the parentheses.

Table 33.--Environmental bias by age, controlling for party identification, (1972). (Percentages)^a

Environmental Bias	Party Identification	Age					
		18-27	28-37	38-47	48-57	58-67	68+
Promovement	Democratic . .	9.9	5.3	10.6	8.0	7.3	5.4
	N . .	(121)	(94)	(85)	(88)	(82)	(56)
	Republican . .	17.5	18.8	10.7	10.0	5.9	4.2
	N . .	(80)	(69)	(56)	(58)	(51)	(48)
	Total . .	11.5	10.4	11.8	9.6	6.8	6.1
	N . .	(253)	(193)	(169)	(156)	(148)	(114)

Antimovement	Democratic . .	5.0	6.6	13.6	18.1	12.9	31.7
	N . .	(121)	(91)	(81)	(83)	(70)	(41)
	Republican . .	5.3	9.1	13.0	18.4	19.6	20.0
	N . .	(75)	(66)	(54)	(49)	(51)	(40)
	Total . . .	5.4	8.3	13.2	18.2	15.0	23.3
	N . .	(239)	(180)	(152)	(148)	(133)	(90)

^aThe numbers upon which the percentages are based are given in the parentheses.

Somewhat higher promovement bias among Republicans contradicted indications from Dunlap and Gale's (1972) study of Oregon student eco-activists, who were found to be "especially unlikely to be conservative"; rather, they tended to be liberal, but not radical, in political perspective. Devall's 1971 survey of "campus contacts of the Sierra Club" at a California state college revealed the same liberal ideological perspective. A table provided by Devall (1971:5, reproduced as Table 34) permits comparison of several studies of political preference among people interested in environmental problems.

The findings of this study are consistent with at least one study of the value for pollution control (Dillman and Christianson, 1972). The differences among findings may be attributed to the populations studied. Collegiate populations, being younger as well as surrounded by a unique social and political milieu, tend to identify more with Democratic party political preference. The national samples reported here and the systematic sample of 4500 Washington state residents (Dillman and Christianson, 1972) may be taken to reflect the conditions characteristic of the wider social context.

There are several indications that the spirit of environmental reforms would tend to appeal to the interests of people who also favor a conservative world view (Weltansicht). In a study of the Berkeley community (discussed by McEvoy, 1971), Lee suggested that eco-activists can be classified into several types that reflect extreme social retreatist characteristics such as "back to nature" primitivism and rugged anarcho-individualism. These traits might also predispose people so captivated to a conservative political inclination.

Table 34.--Political party preference.

	National Sample Eco-activists (Devall, 1971)	University of Oregon (Gale, 1971)	College Students Gallup Poll National (#68, Feb., '71)	College Students Gallup Poll National (#71, May, '71)
Democratic	40%	50%	30%	42%
Republican	12%	20%	18%	16%
Independent	36%	30%	52%	42%
Other Party	11%	--	--	--

SOURCE: Devall, 1971:5.

There is some supportive research beyond Lee's study of the Berkeley community. Molotch's (1970) excellent study of citizen recruitment into the controversy following the St. Barbara oil spill suggested that traditionally middle-class, conservative people were especially "radicalized" by the threat to the community. To the extent that environmental reforms appeal more to the anxieties of the upper-middle and affluent classes (Morrison et al., 1972:272), a stimulation of conservative political sympathies would be expected, rather than liberal ones. Of course, this expectation would be brought about as well by the recruitment of people with higher education and income levels into the movement, since they are typically conservative in political preference (Milbrath, 1965:8).

These shreds of evidence and thought can be amplified by two further points. First, one might reason that the conservative world view is a perspective on the rate of social change that is attentive to future impacts of present events and past impacts on present events, whereas the liberal world view is more attentive to the structure of present conditions themselves; i.e. one is a process, the other a structural focus. The environmental movement focuses upon a belief about the future extrapolated from a particular perspective of the present as it can be shown to be reacting against the past. The environmental problem is basically that man-milieu relationships are metastable in time. People who have a general interest or involvement in the economic system (other than through their labor relationship) would tend to sense the danger to capital stock (past material investments) and future investments as threatened by a disruption of the environment.

The second point is simply this: Interpreting the finding of greater promovement bias among conservatives must occur in the context of a broad comparison of related political issues at the specific time periods in which they occurred. Although this is beyond the scope of the present effort, it seems reasonable to assume that Republicans would be more concerned about environment as a problem in lieu, for example, of concern for any issue that might have negative or dissonant political connotations for them, such as welfare programs, civil rights, women's liberation, or rapid troop withdrawal. Environment, for conservatives, was an issue about which it was safe to be conservative in 1970 (Morrison, 1973:76).

CHAPTER VI

SUMMARY AND CONCLUSIONS

This study has focused on the attentive public of the environmental movement, a particular element of the wide variety of phenomena that can be included in the conception of social movements--e.g. activated formal voluntary and institutional movement organizations (including bureaucracies, civic and political interest groups), movement organizations, and variously activated members of the public at large. While only one element of social movements has been studied, this element has been shown to have descriptive qualities that conform with other theoretical ideas about the environmental movement as well as a wide variety of empirical data that have been published (see pp. 225-229). In that context, the role of age, which has frequently been mentioned in discussions of social movements, has been studied as the criterion by which promovement and antimovement bias are differentiated over time.

Summary of Findings

A definite decrease of promovement interest occurred with increasing age during the peak period of the environmental movement, as may readily be seen in Figure 18 (constructed from the data presented in Table 16). In 1968 there was a suggestion of promovement bias among people in the 35-50 age range, which is the age range in which higher involvement in traditional formal voluntary organizations is found. This is postulated to be an important coincidence because

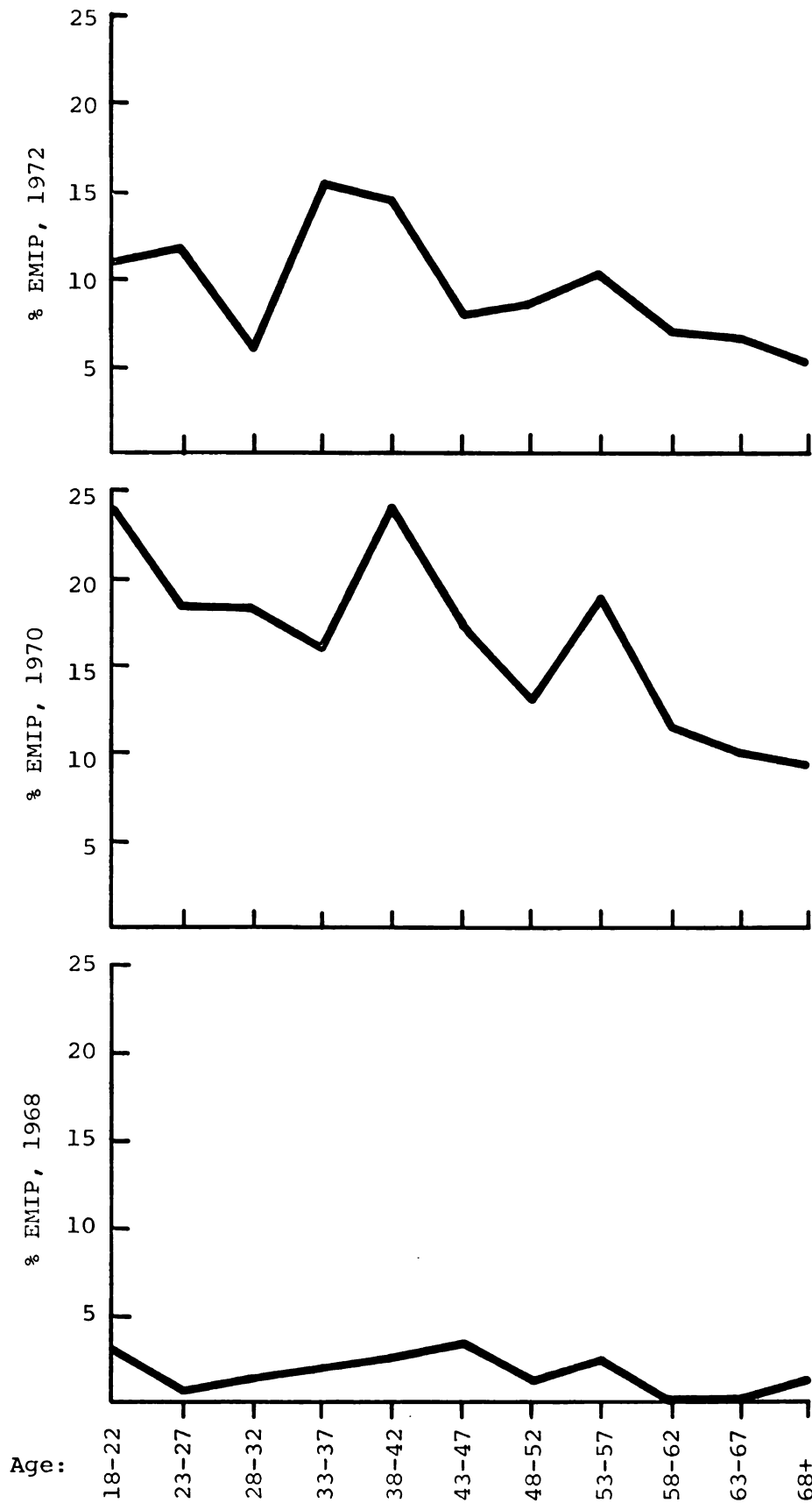


Figure 18.--Proportion naming environment MIP by age and year. (from Table 16)

of the active role played by FVO's during the rise of the movement (cf. Pittman, 1974). There is also some evidence that people mentioning EMIP in 1972 also had higher levels of involvement in FVO's than the general population sampled. By 1972, environment had substantially subsided as a topic of interest. Nevertheless, there remained a much higher general level of attention toward environmental problems than had been indicated before the movement. In 1972 it was again the middle age ranges that upheld the level of EMIP rates; the younger group's high interest during 1970 had declined substantially. Least interested people in 1972 seemed to be those in the 28-32 age range. This group may be the least concerned with social problems generally because of the life cycle crunch of babies and mortgages, which accompanies the start of a stable (dependent) pattern of existence. The decrease of promovement interest with increasing age persisted somewhat in 1972, although the support base of the movement had withered considerably.

It should be kept in mind that it is among both orbits one and two that the age hypotheses have been supported. Had only the core of the movement been examined, the age differentials would be expected to be more evident. The limiting factor of increasing social commitment with increasing age would be more instrumental for a subpopulation that is even more actively involved in reform efforts. In addition, one should consider that, in 1972, the environmental reform movement was, in many respects, main street American dogma. It was a respectable topic of concern for children from the Scouts down to kindergarten. Had similar data been available for the attentive public of a movement involving a more radical reform, the age gradient would be

expected to be even more evident--again, because of the operation of the social commitment factor.

The general findings of this study correspond with the more limited findings of other studies that have used conventional concepts and techniques (cf. Trop and Roos, 1971; National Wildlife Federation, 1970; Dillman and Christianson, 1972; McEvoy, 1972; Munton and Brady, 1970; Sigler and Langowski, 1971), except for two points. First, these data are both national in scope and longitudinal, covering the attentive public from 1968 through 1972. Second, the data and the theoretical framework (including the orbital model and commitment theory) place the movement in context with the distribution of sentiment in the population at large, including the element that was resistant to the movement reforms. Moreover, because this study involves analytic rather than descriptive considerations, it is possible to understand better the changes that have taken place and how the people attentive to the movement became involved at the times they did.

While age was found to play a predictable and theoretically understandable role in accounting for differences in bias among the attentive public, the role of age or any other variable seems erratic unless understood within the broader context of the movement's transformations.

Multiple controls on age, education, and income in 1970, although not fully illuminating because of small cell size, suggest that promovement bias was found among the young, educated, and affluent in 1970. Antimovement bias was found among the aged and those with lower levels of education and income. Over time, promovement bias decreased in 1972, while antimovement bias stayed about the same.

Movement support lost ground among the extremes of high education, youth, and wealth, regressing toward middle age, education, and income levels. Antimovement bias grew among middle-aged as well as among older people and spread into the middle levels of education and income in 1972. Because of the atrophy of promovement support, the antimovement sentiment became the dominant characterization of the attentive public of the environmental movement by 1972.

In terms of the relative strength of the major variables considered, in 1970 age gradations of promovement bias were most evident among people with lower levels of education but were thoroughly obscured among those with some college training and beyond. The highest levels of promovement interest were found among the higher educated group. Antimovement bias was age graded in the direction opposite that of promovement bias. That gradation persisted regardless of educational level considered. Although promovement bias was totally obscured in 1972, antimovement bias became even more age graded than in 1970, and persisted even among those with higher education. Antimovement bias was as decidedly characteristic of the people with less education in 1972 as promovement bias was characteristic of people with some college education in 1970.

Age gradation of both promovement and antimovement bias was not eliminated by controls on income. Promovement bias was, however, clearly more favored among those with higher incomes, and antimovement bias was favored among the less affluent.

Additional variables were also found to be associated with environmental movement bias. People raised in or living in rural areas

tended to be less favorable to the movement. Promovement bias characterized people raised in or living in the metropolitan areas. Regional differences reflected the active role of the movement in the Pacific and West North Central States. High rates of both pro- and antimovement bias in the Mountain States reflected the continuing stew over resource development and recreational activities in that area of high and conflicting demands and expectations. Republican party identification was also associated with promovement bias, whereas antimovement bias was somewhat more common among people who identified with the Democratic party in 1970. In 1972 that pattern changed, as promovement bias then tended to persist among people who were independent of party affiliation or who identified with one party or the other only very weakly. Antimovement bias in 1972 increased among people with strong party identification. This finding is consistent with the growth of antimovement sentiment among the middle aged and their typically stronger party affiliation patterns. To the extent that younger people still were supportive of the movement in 1972, they would cluster among the categories reflecting weak party affiliation, as was found to be the case.

The findings are generally consistent with what would be expected from the general theoretical discussion of the literature reviewed in Chapter II. The data also support the specific treatments of this movement's dynamic characteristics of change from consensus to conflict as the antimovement public became more evident (Morrison et al., 1972; Albrecht, 1972). The following generalizations are

reasonable inferences and conclusions that may be derived from the findings of this research:

1. The public support base of the environmental movement developed between 1968 and 1970, peaked in 1970, and underwent substantial reduction in size by 1972.

2. Antimovement bias was present throughout the period studied in a nearly equal proportion to promovement bias, even in 1970--there is no evidence that this was a movement drawing widespread national consensus at any time.

3. Promovement bias was reflected by 16.6 percent of the public in 1970, decreasing to 9.8 percent in 1972 (See Table 19).

4. Antimovement bias was reflected by 13.0 percent of the public in 1970, slightly decreasing to 12.3 percent in 1972 (see Table 19).

5. The characteristics of people reflecting promovement bias in 1970 were youth, high income, and high levels of education. In 1972 they regressed toward the national averages for these variables but still remained younger, richer, and better educated.

6. The characteristics of people reflecting antimovement bias in 1970 were older age, low income, and low levels of educational attainment. In 1972 they regressed toward the national averages for these variables but still remained older, poorer, and less well educated.

7. The major distinguishing features of movement bias in 1970 were age and education. By 1972 these distinguishing features became age and income. Promovement bias may be seen as an artifact of the activation of the young and educated in 1970, the educated being those

with higher incomes as well. Antimovement bias became dominant in 1972, however, and may be regarded as essentially an economic reaction resulting from the crystallization of threats to life style and occupations of the middle and lower classes.

8. At least inferential data suggest that FVO's played major roles in the changes in the attentive public from 1968 to 1970 and continued to play an important role during the decline of the attentive public from 1970-1972.

These findings contribute to the explanation of the changes in the attentive public of the environmental movement. The data show that the upsurge of proenvironmental interest was particularly characteristic of the younger elements of the population. Younger respondents adopted and abandoned the movement with higher rates than older respondents. This finding demonstrates the principle noted by Ryder that "the potential for change is concentrated in the cohorts of young adults who are old enough to participate directly in the movements impelled by change, but are not old enough to have become committed to an occupation, a residence, a family of procreation or a way of life" (1965:848).

In addition, because the population is numerically larger among the younger ranges of the population pyramid of the United States, the higher rates of promovement bias among the young would have the compounded effect of yielding disproportionately large numbers of young people among the attentive public of the movement. As the younger element of the attentive public abandons the movement, however, the effect is to suddenly decrease the size of the attentive public. The rise and fall effect is a joint function of the age stratification of change proneness and the

configuration of the population pyramid of the society in question. It may be hypothesized that the larger the younger element of the population, the more change prone the population (and the higher the incidence of social movements). Assuming constant change prone rates for each age level, a society with a stable or older population than that of the United States (in 1970) would be less likely to produce the appearance of such rapid changes in public sentiment. It may be an empirically demonstrable point that the movements of social reform in the 1960-1970 period could be traced, in substantial measure, to the population of young adults born during the post-war "baby boom" as they enter the educational, occupational, and political market places (see McNeil and Thompson, 1971:635; also Foner, 1972:130 and Chapter 7). What may be more difficult to show, however, is whether societal change proneness is fostered by the youthful character of the population per se or by imbalances among age strata and the transformations such imbalances pose for the social structure that must adapt to fluctuating cohorts of students, workers, sick people, retired people, etc.

Theoretical Contributions

It may be concluded that the attentive public of the environmental social movement is not heterogeneous in its composition. Important differences are found to be attributable to age; however, age does not tell the whole story of how environmental bias is distributed in the population. As Abrams noted, it is always age-related-to-something-else that locates the sources of reform and reaction (1972:108). If one had the opportunity to select one, but only one, variable upon which to base predictions about bias related to movements of the kind under consideration

here, age would provide an informative datum. Knowing age, one also has general knowledge about income, education, political outlook, and other conditions of the individual that may be relevant to establishing the actor's stance with respect to any given social change.

The academic popularity of the theory of generations testifies to its global applicability to social change phenomena. However, as our discussion of the age indicant and the concept of commitment pointed out, it is not age per se that precludes or predisposes participation in social movements. Participation is a function of the strength of the bond that connects the actor to the existing society of relationships. To base a theory on a single indicant is to miss the point that other indicants, as well, might account for variations in the phenomenon under study. The role age plays within the theory of generations must not strictly be interpreted as the difference between being over or under 30. The point is that people who are bound to the existing society by the style and circumstances of their everyday lives will assume a more predictable stance to social reforms that promote changes than will people who are not bound to that social arrangement. Structurally unattached individuals (as a group) are historically available as proponents of change. In Milbrath's terms (1965:8), as one ages and his structural attachment increases he tends to shift from a status changer (liberal) to a status defender (conservative). Age, it so happens, is the best single indicator of varying degrees of strength of the social bond. It becomes an even better indicant when combined with other variables.

If the theory of generations is taken to be an explanation based on the covariance of age and change proneness alone, it is clear that it does not satisfactorily account for the transformation of the environmental movement's attentive public over time. In 1970, the environmental movement presented a problem in the study of social change, and age differences were quite powerful in accounting for the differences among the attentive public. However, by 1972, the environmental movement had undergone a transformation into a problem of social conflict, which it remains to date. Age distinctions have declined and other distinctions, such as income, have become more important. If the theory of generations is broadly conceived and extended (as has been done in the works of Heberle, Becker, Foner et al.) to take account of differences in degrees of social bondedness (commitment), it becomes a thesis that continues to make sense throughout the changes in the environmental movement from consensus, to confusion, and to conflict.

Reform and Risk

The 1970 public opinion polls measured a majority of Americans supportive of environmental reforms. No measures of antimovement sentiment were undertaken--indeed, support of environmental reform was limited to questions of degrees of support. After all, who could be against improving the quality of the environment?

There may be little doubt that, given the research methods used, a majority of Americans polled were agreeable to the probes about the desirability of saving the environment. As pointed out

earlier, however, the meaning of such findings remains forever obscure because, among other things, the poll findings developed out of a theoretical void. It may be an entirely trivial undertaking to collect information about the desirability of social goals when it is the objection to the subsequent means that becomes disruptive and the focus of social conflict.

The present study suggests that the reformers were far from a majority. Moreover, there appears to have been a latent opposition element of a size nearly equal to the support base of the movement even in 1970. Only gradually, however, did the magnitude and import of resistance to the movement reforms become evident. The reformers were in the public focus in 1970.

Because of the age, education, and income characteristics of people favoring environmental reform, it is evident that this group was composed of elements of society that had little to risk by the proposed changes. Improvements to environmental quality, even at the theoretical expense of increased costs and limitations on certain consumer items, would be relatively more beneficial to the younger element of the population. It is their future, relatively more than the future of older people, that is jeopardized. Economic constraints or changes in consumer patterns do not threaten people who have not established dependable incomes and who have not had the opportunity to develop consumer habits.

Although the low risk and supposed benefits may cultivate the interests of younger people, the presence of risk does not prevent endorsement of the reforms among older people as long as the risk is

not materialized. As long as reform is an idea, even though its logical costs to certain groups are plainly evident, it will tend to receive blanket support by the population at large when superficially probed by conventional questions about socially desirable goals.

Older people are more likely to remain effectively insulated from a social innovation during its early development. They tend to channelize the information inputs to which they are routinely exposed by more restricted selections of media content, friendship circles, etc. (cf. Ryder, 1965:858). They are less exposed to the variety of detailed and conflicting viewpoints than are younger people. They may lean more on general impressions of events and popular evaluations and explanations. In short, when confronted with a conventional survey questionnaire, they are prone to reflect the normative reaction to the items provided even where they are logically inconsistent with their self-interests, as long as those interests are not immediately threatened. This is not illogical, however, since at a superficial level no conflicts of interests would be apparent to the respondent (in 1970), even if provided with an opportunity to express them. Even though the respondent might in fact have mixed feelings about reforms, the impulse to disclose agreeable sentiments is invariably reflected by structured questions.

In short, the absence of risk operates to encourage younger people to endorse the innovation in question. However, the presence of risk does not act to prevent endorsement of the innovation as long as it is merely an idea, a social goal. The apparent endorsement of

the innovation collected by conventional methods is a reflection of the authentic interests of the younger elements and the normative acquiescence of older people who are neither involved with nor threatened by ideas. As reform ideas become reforming actions, however, the situation changes.

Threat and Social Conflict

Although most Americans subjected to polling with structured survey items fell in line with the normative climate of opinion, this study indicates that the climate of opinion favorable to environmental reforms was thinner than other sources indicated. Surveys using conventional methods were unable to cut through the popularity of environmental interest to determine the extent of the effective support base of the movement. Recognition of the antimovement element developed after resistance became manifest in social conflicts of interest. Between 1970 and 1972 social institutions (government, industry, business, educational centers), being attentive to the public interest that had hastily been brought to their attention by the pollsters and media, began acting on the reform goals that everyone indicated they wanted.¹

Apathy to change (which becomes measured by structured questions as normative support) is possible only as long as the changes do not become real. As changes take place, the scope and character of

¹The apparent strength of public opinion was not the only factor that propelled public servants to action. Many governmental agencies welcomed the new interest as a justification to act on environmental programs that had lacked support before the movement (Morrison, 1973:76).

their costs become apparent and the chain reaction of cost displacement begins. At the end of the chain are the worker and the consumer. The skepticism that was visible to the 1970 National Election Study data became the dominant characteristic of the movement's attentive public by 1972.¹

This study indicates that antimovement sentiment developed among people with social characteristics essentially opposite those of the promovement subpopulation. They were older and reflected lower levels of income and education. Their interests were threatened by a variety of changes in their social environment. The altered industrial production economics prompted by pollution control legislation caused many marginal production plants to close down, and others were forced to halt operations temporarily or permanently while attempts were made to develop adequate pollution control technologies. The costs of the new pollution control equipment were passed off directly to the consumer and indirectly to the worker as development and capital expansion plans were laid aside, contributing to constrained labor markets at the national level. Many plants changed locations to find more hospitable local political climates. Such changes caused disrupting local unemployment problems in the abandoned areas. Older and less well educated workers were often laid off and found it more difficult

¹Actually, the emergence of antimovement sentiment quickly became apparent to anyone who paid close attention to the content of the printed media, but there was no way to assess the scope of resistance from such sources (cf. Time, 1970; Hoyt, 1971a, 1971b; Calame, 1971; Neuhaus, 1971; Bernstein, 1971; U.S. News and World Report, 1971; Holmstrom, 1971; Bird, 1971; New York Times, 1971; Carper, 1971; Associated Press, 1972).

to find reemployment than did younger workers. All of these changes occurred in a generally falling economic climate, which exacerbated the pressure on lower-income families, since reemployment opportunities in nonthreatened industries were already poor. While any or all of these negative impacts could easily be imagined, no indication of resistance is documented by the surveys conducted during the period.

A major point to be made is that the method of studying the public interest makes a great deal of difference if it is applied during the stage of development of a social innovation when goals are being sold, rather than during the period of actualization of the reform. When the impacts of the reform are evident, it may be expected that the cleavages among jeopardized self-interests will override the normative bias toward agreement with general public goods. Before that time, such methods are of little value. As criteria upon which to base political decision making, they are useless.

People in positions of responsibility who take as their cue of the public interest what the opinion polls suggest are prone, at least, to misjudge the rate at which such polls justify the promotion of social change. Such data create a false sense of legitimacy for social reform efforts. Reform efforts that are undone by later political counteractions are of questionable utility to the reformer's goals.

The environmental movement is an extreme case in point. Environmental reforms were rapid and thorough. Reactions to the reforms are still developing and appear to be extreme in the opposite direction--the 1973 energy shortage has resulted in increased depletion of basic resources and the abandonment of many of the pollution control measures

adopted with enthusiasm in 1970. By March, 1974, there existed the possibility, unthinkable even in 1973, that the landmark National Environmental Protection Act could be repealed--a step far in excess of the temporary lifting of constraints necessary to increase the energy yield (Newsweek, 1974:99).

Hasty institutional changes prompted by environmental reforms have had the unanticipated effect of turning the tide of favor against environmentalists. This study documents with nationally representative data the fact that resistance to the movement was present even in 1970. Had movement leaders and government decision makers been made aware of the basic composition of the attentive public rather than turning to the mass of diffuse opinion as a social indicator of the need for environmental reform, they might have been forewarned of the side effects of unilateral action in favor of an erroneous public image. As mentioned earlier, the least that might have been done would have been the merger of certain environmental reform efforts with the needs of deteriorating central cities and the interests of the underprivileged faction of the society (cf. Time, August 3, 1970:42; Neuhaus, 1971).

Misjudgment of the climate of support of the environmental social movement was fertilized by the methods used in learning about the public interest. Blumer's criticism of public opinion polling (1948:546) is applicable to the survey research on environmental attitudes. One of his questions must be kept in mind: "Is the opinion [of the public] an ephemeral or momentary view which people will quickly forget?" The answer to the question varies, depending on the stage in

the sequence of the diffusion of the innovation and upon the impact of the innovation itself, and probably cannot be answered in the abstract. Equally important is Blumer's thesis that "effective public opinion is not an action of a population of disparate individuals having equal weight but is a function of a structured society, differentiated into a network of different kinds of groups and individuals having differential weight and influence and occupying different strategic positions" (1948:547). Without an interpretive framework, the very concept of public opinion is meaningless. The operational definitions criticized by Blumer ("public opinion is what public opinion pollsters poll") are as lame today as they were in 1948. The orbital theory provides the conceptual framework necessary for understanding "opinion" by allowing for the distinction between a segment of the public whose opinions don't matter and that segment whose opinions do matter insofar as they act on their convictions in a politically meaningful way (cf. Campbell et al., 1960:173). The methods used in this research constitute a minimal sense in which effective public opinion can be tapped by survey research.

The Reform and Reaction Cycle

The orbital model provides a means of comparing the compositional changes in the attentive public of a social movement with respect to the total range of public opinion. In the case of the environmental movement, the relative changes in the size of the pro- and antimovement factions have been shown (Figure 9, p. 111) to shift in the balance of recruits and defectors in favor of the antimovement faction by 1972. The orbital model illustrates a form of regeneration effect (McNeil and

Thompson, 1971), as the pool of interested parties in the mass public serves as both a source and outlet for people entering and leaving the respective factions of the attentive public. As mentioned earlier, the exchange between orbits had the compositional effect of moving each faction toward the national norms for age, education, and income by 1972.

The reform and reaction cycle bears similarities to shifts between what have been called status and class politics (Gusfield, 1963). "Status politics, conceived in the broadest sense, often focuses on the overall goals of the society . . . class politics often involves struggle over specific policies concerning the allocation of resources" (Foner, 1972:156). Status politics may be compared with the early stage of a reform process. Less committed people would be thought to play a larger role during this period of mobilization around new goals. Class politics might be equated with the reaction to reform, as it begins to have effects throughout the socio-economic structure. Foner did not predict that age would have an enduring effect in the context of class politics; however, theory suggests (p. 38) and these data clearly show the age-related locus of resistance to environmental reforms (Foner, 1972:152).

The general theoretical utility of thinking of the attentive public of a social movement as a reform and reaction process involves the dual role of integration and conflict theories in a noncompetitive context (cf. Dahrendorf, 1959: Ch. 5). The promotion of change by youth (1970) brought actual changes that became sources of conflict and the resistance

(1971-1972) to change by older people.¹ The attentive public of the movement reflects important emergent qualities that can only be accounted for by introducing notions of change proneness and nonintegration (lack of commitments) during the diffusion phase and change resistance and integration (threatened commitments) during the conflict phase of the environmental movement.

A simple graphic device serves to clarify the relationship between movement bias, the factions of public interest, and the flow of time (Figure 19).² Let the vertical dimension be movement bias, which varies from promovement to antimovement beliefs, with ignorance or apathy being the center point. The horizontal dimension is the benefit/cost ratio of the movement reform program, which varies from plus to minus one, with zero being neither benefits nor costs. This factor is determined in reference to defined groups impacted, in the aggregate, by changing events in the society at large, over time. In this case, the path of the two groups that have been associated with pro- and antimovement bias by the findings of this study will be considered.

The point T-1 represents the premovement state and, for the sake of symmetric simplicity, the end point, although they do not necessarily coincide. The path from T-1 to T-2 represents the developing

¹The reaction to reform proposals does not follow in Pavlovian style. In fact, reaction is nearly simultaneous among intellectuals of the society. Insofar as our attention is on the entire mass of society, however, the mass effects of change proposals are lagged by resistance, which derives from the secondary effects of change (those operating through the labor and consumer markets).

²For a similar scheme see Oberschall, 1973:53ff, 162.

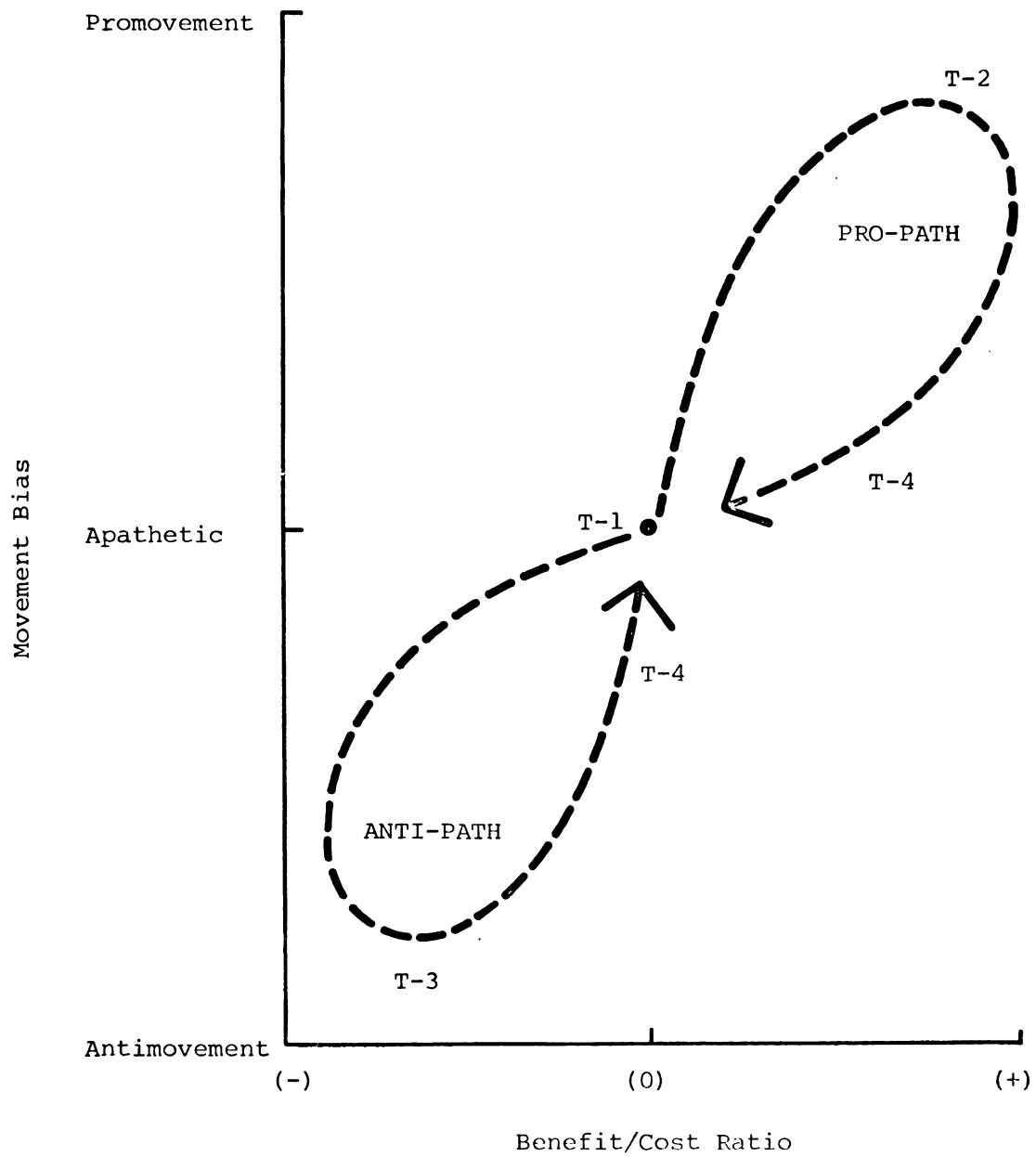


Figure 19.--Paths of pro- and antimovement bias according to benefit/cost ratio of change impact on different groups.

promovement interest within the faction of the population that feels itself drawn to the goals of the movement--possible benefactors of reform. The path from T-1 to T-3 represents the faction of the population that either intellectually develops skepticism about the reforms or materially comes to suffer from actual costs of reforms. The points labeled T-4 represent a point in time at which the process of conflict development subsides. This graphic device does not show the magnitudes of the respective emergent factions, but the orbital model can readily supply that comparison across the population at large. It should be realized that the factions represented by this scheme do not account for the entire population in which the movement occurs. Each faction of the attentive public, moreover, draws from a pool of an opinionated but essentially disinterested public. The stimulus for motion along these paths is understood to be the felt benefit/cost function among the attentive public.

In the case of the environmental movement, for younger people the costs remain constant and relatively low. Benefits of reform (in the long run) prompt them to become attentive to the movement. For older people, benefits remain constant and relatively low (in the short run; there is much less "long run" for them). As reforms become enacted, however, the costs for older people increase, prompting them to move from an agreeably apathetic state to antipathy along the path suggested. This, in essence, is what was found to be the case in the reform and reaction cycle of the environmental movement's base of support.

Next Steps

Several sections of this research should be drawn together and submitted to wider professional scrutiny, criticism, and further testing. The proper vehicle for this continuing scientific enterprise is the journal article, the scope, style, and organization of dissertations being suited more to institutional requirements and academic expectations. Two "next steps" seem appropriate then--the production of one or more professional articles and the specification of research to be continued as time and resources permit.

Professional Articles

Professional papers that might be derived from this work fall into five categories:

1. Both the orbital model and the graph of paths of movement factions as analogies that capture many important points of theories of social movements should be offered to students of this subject as fruitful theoretical tools.

2. The argument that starts with traditional generational theories and ends with commitment theory should be brought to the attention of students interested in the theory of social conflict and change. The case should be strengthened and specified in greater detail.

3. The empirical demonstration of the transitional roles of age, education, and income should be made generally available as a quantified study of a social movement's attentive public.

4. The descriptive element of this work should be made available to all students interested in the changing vitality of environmental bias.

5. A paper should be addressed to the criticism of the MIP indicant (cf. Hyman, 1972:240; Funkhouser, 1973; Caspary, 1970; this issue is addressed to a limited extent in Appendix B).

Continued Research

As time and resources permit, the following issues warrant continued attention, according to the findings of this study:

1. Analysis of environmental bias should continue, with special attention to the life course differences and cohort differences among age groups reflecting various levels of concern for environmental issues.

2. Analysis of antimovement bias beyond 1972 should continue, with special attention to the reaction of the attentive public to the energy crisis after 1973.

3. Methods of studying the attentive public should be applied to other past and future social movements to determine the extent of the generalizability of these findings and the theoretical tools suggested by this work.

4. Methodological studies of the validity and reliability of the MIP-type question should be undertaken.

5. A more systematic study of the relationship of movement organizations to movement bias of the attentive public is needed.

6. An analysis of the interaction between the three major variables (age, income, and education) over time should be carried out with appropriate statistical tools. Such an analysis will become feasible as data for 1974 are collected and made available.

7. A computer simulation model of the diffusion of a social movement and the emergence of conflict groups seems a possibility, given this basic quantification of the process.

8. In conjunction with #7 above, a propositional inventory covering the life cycle of a social movement seems possible and would contribute immeasurably to reducing the tonnage of descriptive eloquence that infests social movement literature.

APPENDICES

APPENDIX A

ARRIVING AT THE PROBLEM

APPENDIX A

ARRIVING AT THE PROBLEM

The study described here is by no means my first stroke in cutting through the problems of social movement analysis. My own experience with the environmental movement began during the peak activity of the movement in 1970, with extensive library research on the conservation movement of earlier periods as well as on the environmental movement literature.

Late in 1970 I spent three months with Environmental Resources, one of the two branch organizations of the then-defunct Environmental Teach-In, Incorporated, the Washington-based headquarters of the 1970 Earth Day movement. While affiliated with Environmental Resources, I attempted to play the role of the participant observer. Armed with the folk wisdom of the people who wrote texts on the practice of participant observation, I studiously kept notes on what came to my notice during that stay. Unfortunately, my personal weakness is that I am a conservative zealot. I feel that if a cause is worth the personal expense of extensive participation in a social movement organization, then it seems to me to be a full-time job requiring competence, self-application, attention to detail, coordination, and discipline. Alas, for that, I was disqualified from social movement organization membership, where the ways of doing things are not always well organized--and, often, I concede, well advised not to be well organized. Nevertheless, my personal orientation clouded my vision and whether my

observations could be substantiated or not, they seemed to be of little credibility beyond the fact that they were my opinions. Science is not made of that.

The occasion for my stay with Environmental Resources (E.R.) was to assist in the collection and coding of a lengthy questionnaire that was being mailed to the correspondents who had been in contact with E.R. over the previous year ($N = 42,000$). (The rigors of the task may, of course, have contributed to my frustration with the inherent informality of E.R.'s standard operating procedures.) The questionnaire was sponsored by the Corporation for Public Broadcasting, and had the potency of being the first (and only) survey of what may be taken to be the promovement aspect of the attentive public of a social movement. Unfortunately, interference with the questionnaire design by E.R. staff, the impossibility of exercising supervision over the questionnaire itself, plus the awkwardness of trying to fulfill Corporation for Public Broadcasting, E.R., and social science objectives all at once, produced a study with severe shortcomings. After following the study through coding and card punching, I abandoned the project, probably as much because of its technical shortcomings as because of my own fatigue with the project.

After returning to Lansing to continue my studies, I was cordially invited to become a participating, observing, and contributing member of the Michigan Student Environmental Confederation (MSEC), founded and headed by Walt Polmeroy. Although this group conformed to my expectations about how a successful social movement organization would be conducted, my patience with participant observation had too

7

thoroughly been shaken and I opted to consider myself a co-worker and member of this group rather than a student of it. I feel indebted to Mr. Polmeroy and his staff for having afforded me greater sophistication in social and political problem management than I was able to return. MSEC still exists, of course, and continues to make valuable contributions to the legislature and citizens of the state of Michigan.

Throughout the 1970-1972 period, I continued my studies of environmental reforms and conflicts. With Denton E. Morrison and W. Keith Warner, I coauthored a paper which reflected, in part, my experiences and studies as well as those of my coauthors.

During the summer of 1972 I was selected for a fellowship with the Environmental Studies Division of the Environmental Protection Agency in Washington, D.C. This experience proved to be a valuable supplement to my exposure to the social movement organizations. Of the many impressions I walked away with was what appeared to me to be a surprising similarity between the operation of the fledgling bureaucracy and E.R. during the heat of the movement.

During this period several papers and informal dissertation proposals were handed back and forth between Professor Morrison, my advisor, and me. Eventually, the proper mix of concepts, data, costs, and operationalizations were linked to a key scientific problem leading to this work.

The final point I would make is that the particular study selected here is not the choice of blind fortune but the only alternative remaining after opportunities to do other kinds of research

indicated problems I was not willing to ignore and feats I was not able to accomplish. Specifically, I came to realize that a social movement must be studied over time, and the observations of the solitary reporter are quite lame for that task. While the strategy of using public opinion poll data sacrifices many important pieces of information one would ideally want to know about a movement, this particular study contributed valuable pieces of knowledge that have not been and could not be arrived at by any other scientifically acceptable schemes. Hopefully, the work contained here is improved by the considerable experience beyond these data that I have been fortunate enough to gain over the last four years.

APPENDIX B

GALLUP OPINION INDEX AND RELATED INDICATORS OF ENVIRONMENTAL OPINION TRANSFORMATIONS

APPENDIX B

GALLUP OPINION INDEX AND RELATED INDICATORS OF ENVIRONMENTAL OPINION TRANSFORMATIONS

A brief review of Gallup surveys is appropriate because of their extensive use of MIP-type questions and their inclusion of EMIP codes since 1970. Over the years, however, the pattern of EMIP responses revealed by the Gallup data is confusing, even contradictory to the findings of this study. At least two researchers have used the Gallup data to show either that MIP questions are invalid in comparison with other measures (Caspary, 1970) or merely reflect mass media content (Funkhouser, 1973). In the course of reviewing the Gallup surveys, sufficient cause will be established to show that the criticisms of Caspary and Funkhouser may be attributed to the weakness of the Gallup data and that this weakness does not characterize the data that are the basis of this study.¹

The Gallup Opinion Corp., Inc., has used the MIP-type question for over a decade. Unfortunately, the scientific utility of the data collected to date is restricted in regard to this particular question. The coding practice appears to be a major source of distortion. Gallup codes appear to be highly variable over short periods of time and are oriented toward popular topics, which change as national events transpire.

¹The following treatment and defense of the MIP item as an indicator is not intended to be exhaustive, since that task is beyond the scope of the problem being discussed and the scope of a secondary survey analysis.

The war in Southeast Asia, for example, is coded variously as "Vietnam war (including Cambodia),"¹ "Vietnam, Indochina,"² and "Vietnam."³ Various forms of social unrest have been combined in ways frustrating to the student of social trends, including: "campus unrest,"⁴ "youth protests, unrest,"⁵ and "unrest in nation."⁶ These appear to be needless changes in format, which suggest that if Gallup uses standardized codes, they are not reflected in the Gallup Opinion Indexes and Press Releases, both of which are designed to satisfy the public interest rather than the more technical interests of the social scientist. By way of contrast, the Center for Political Studies developed a "problems" code in 1964 based on several hundred specific issues generalized under eight areas of reoccurring national concern. This code has proved adequate to capture the changes of public attention over the years, and was used in all of the biannual National Election Studies (NES) through 1972.

A review of Gallup surveys indicates that a general "pollution-ecology" code first appeared in January, 1970 (Gallup, 1972).⁷ Figure B1 indicates the approximate dates and response rates for Gallup surveys

¹Survey 807-K. ²Survey 824-K. ³Survey 831-K.

⁴Survey 807-K. ⁵Survey 831-K. ⁶Survey 840-K.

⁷Our reference to the Gallup MIP-type question includes only the unstructured version. Gallup also uses a variation of the MIP-type question in which the respondent is asked to select his choice from a list of problems. This amounts to a structured question and is not treated here. Its use by Gallup dates back to pre-World War II days, but "pollution" codes began to be used around 1965. Both types have been used from then on, excepting 1969, when no MIP-type question was asked.

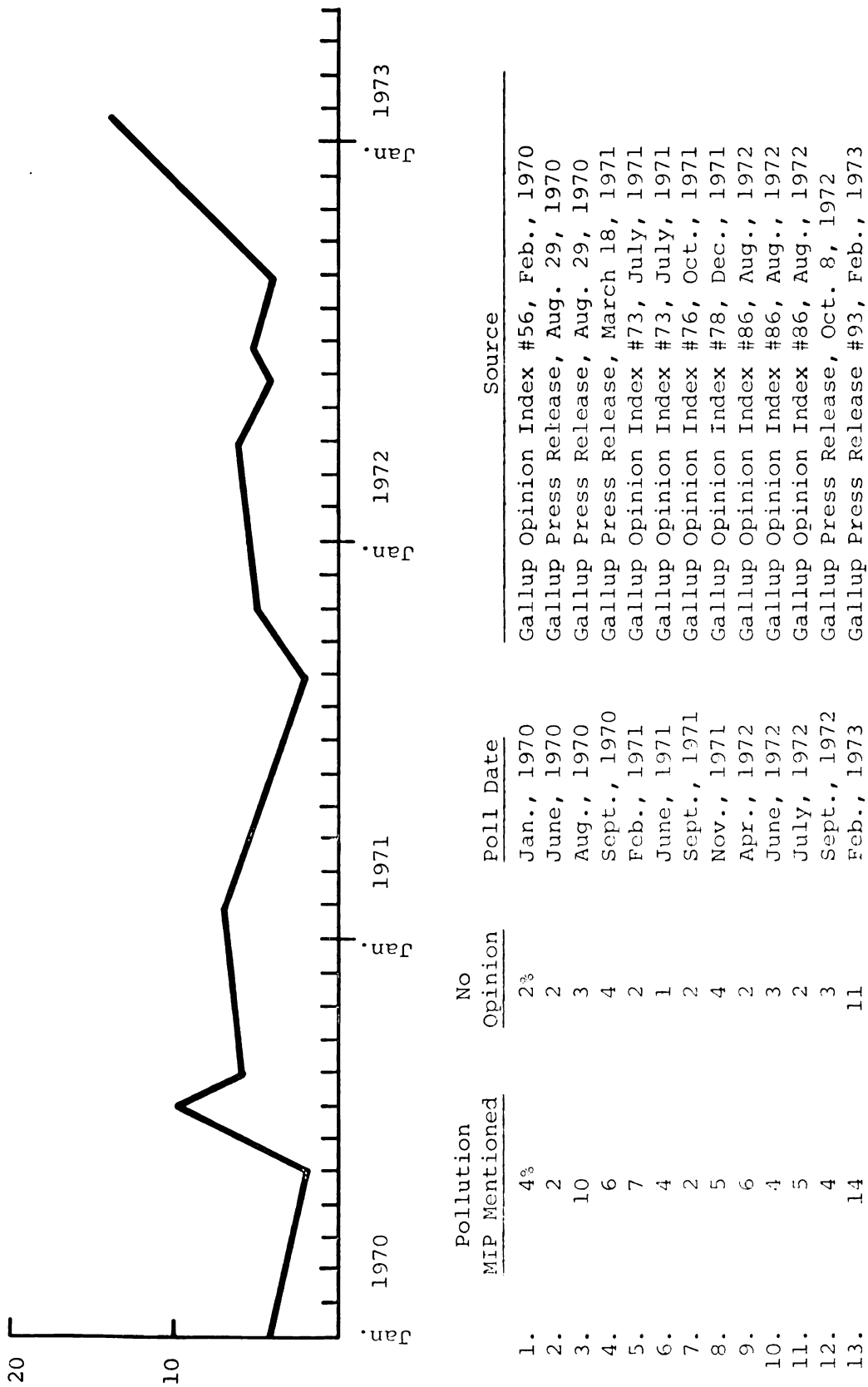


Figure B1.--Environment-ecology Most Important Problem.

including this item. This consistently small proportion mentioning EMIP in the Gallup surveys does not vary appreciably over time, suggesting that little change in public attention toward environmental problems transpired between 1970 and 1972. While an accurate evaluation of these findings is limited by the necessity of dealing only with the available reports¹ rather than original data, it is evident that the data derived from MIP-type questions reflect certain shortcomings. Low frequencies of mention are often omitted from the reports of MIP questions. Topics of major concern seem to differ considerably between Gallup and NES for the same period (see Table B1). The Gallup codes could be characterized as somewhat more generalized than the NES codes, reflecting the likelihood that Gallup uses a small, basic inventory of codes to classify problems mentioned, adding to the list as special issues come to public attention.

Gallup also operates under the assumption that the respondent names the most important problem first, and that there can be only one important problem to any individual. They do not solicit more than one problem; however multiple responses that are volunteered are added to the percentages (i.e., MIP list percentages add to more than 100 percent because of multiple responses).² This characteristic accounts for the small number of EMIP mentions indicated by the Gallup data. A January, 1971, Harris survey using an unstructured, multiple response, MIP

¹Gallup Opinion Indexes and Press Releases are frustrating sources of technical information because of the occasionally inconsistent figures and the chronically abbreviated style.

²It is not clear that interviewers systematically tally multiple responses as a matter of Gallup policy.

Table B1.--Comparison of MIP by Gallup and NES, late 1970.

Gallup ^a	%	NES ^{b,c}	%
1. War	26	1. War	45
2. Other International	15	2. Inflation	19
3. Economic	11	3. Welfare	19
4. Race	11	4. Environment	13
5. Polarization	8	5. Drug Abuse	11
6. Drugs	8	6. Civil Rights	11
7. Other	7	7. Employment	11
8. Pollution	6	8. Crime	10
9. Crime	5	9. Taxes	10
10. Moral Decay	2	10. ^e Campus Unrest	8
11. Education	2		157
12. ^d Welfare	2		
13. No Opinion	4		
	107 ^f		

^aSeptember, 1970, as reported by Gallup Press Release, March 18, 1971. Another source (Gallup, 1972) indicated the top five problems for this survey were war, campus unrest, civil rights, cost of living, and crime.

^bNovember, 1970, through January, 1971.

^cMultiple responses solicited.

^dMultiple responses reported.

^eThis list represents ten most frequently mentioned items of a larger code.

^fThis list represents the entire code.

question indicated 41 percent of those interviewed feel "control of air and water pollution" to be a problem (Erskine, 1972a), while a Gallup poll for approximately the same period reflects only 7 percent of those interviewed mention environmental problems of any sort (Gallup Opinion Index, March, 1971, Number 73).

There is reason to believe that Gallup surveys reflect a media-sensitive bias which is introduced when the interviewer identifies himself as a Gallup representative. Because the market for Gallup work is predominantly its use by the mass media, the respondent is prompted to equate the interview situation with "what is in the news"--especially recent events (cf. Downs, 1972). The MIP question which does not probe for more than one answer seems prone to elicit either topical problems or, depending on the attention of the respondent, traditional social problems. A strong association between media content and MIP-type question focus was, in fact, demonstrated by Funkhouser (1973: 67).

In the context of the present study the media bias associated with the MIP-type question is taken to be a limitation which is unique to the Gallup survey and which does not affect NES. There are at least three reasons for this. NES do not connote a media bias to the public; if anything, they might imply a bias toward political issues which would not bias data related to environment as it was essentially apolitical (or politically safe). The environmental topic itself is neither a traditional issue which would stimulate strong normative ties with national problems nor was it episodically spectacular at any point in time (in contrast to a campus or urban riot). Most importantly, the

present study draws upon multiple responses about important problems and provides an opportunity to demonstrate that the first problem mentioned is not the same as the "single most important problem" as it occurs to many respondents.

Table B2 shows the relationship between the first problem mentioned and the respondent's judgment about which problem in particular is the single most important problem. Only 12 out of 29 persons mention EMIP as a first choice in the 1972 NES and also specify that EMIP is the single most important problem of any they might have mentioned. Seventeen other persons happened to mention EMIP first among those they mentioned, but did not say that EMIP was the single most important problem. Most surprisingly, 22 persons mentioned EMIP as the single most important problem but had not mentioned it as their first, second, or even third choice. The first problem mentioned appears to be nothing more than the first, among several, important problems that occur to the respondent. There seems little ground for claiming that the first problem mentioned is, in fact, the most important problem or even one that ranks above any others which may have been mentioned. This peculiarity tends to make Gallup data less useful for our purposes than the NES data.

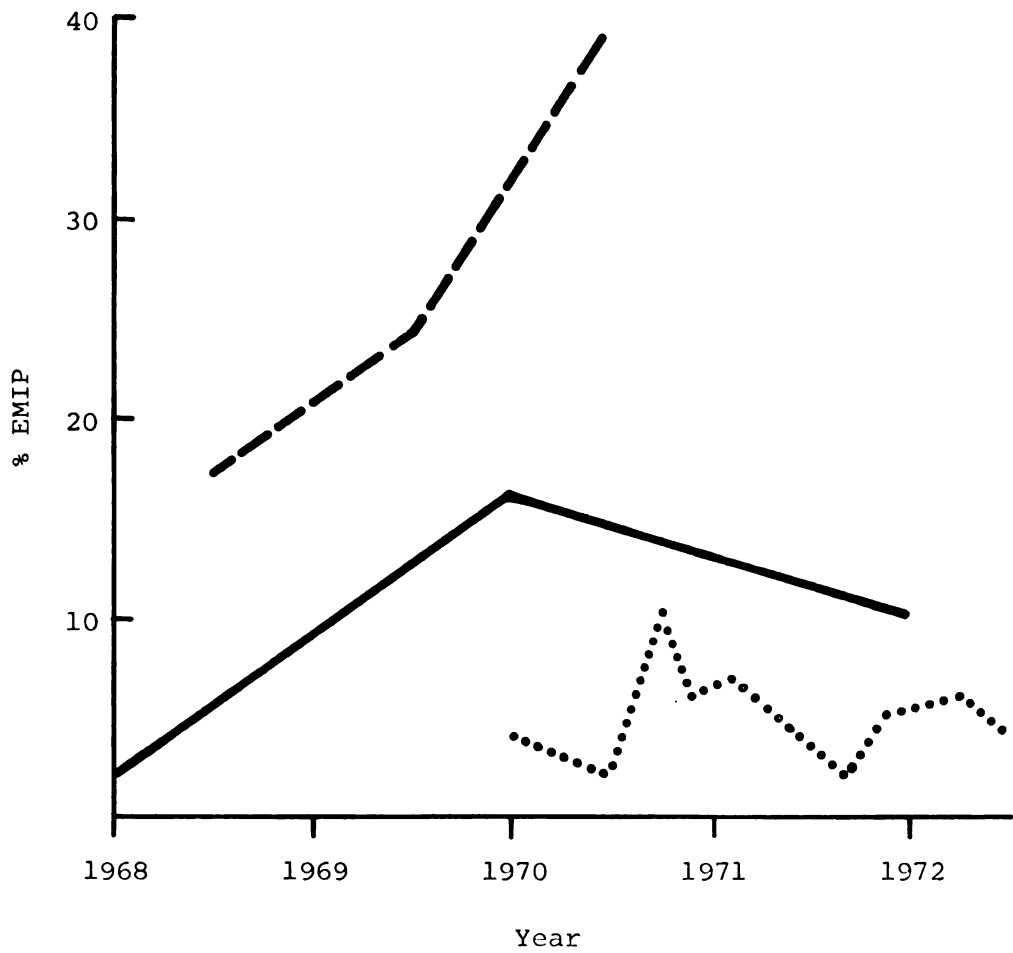
Table B2.--Number of people mentioning EMIP initially, as the single most important problem, and both initially and as the single MIP. (N)

EMIP First Choice Only	EMIP Single MIP Only	EMIP Both Single MIP and First Choice
17	22	12

Other sources of information reflect that substantial differences did occur between 1968 and 1972. A study by Buttel (1972) of Wisconsin residents' conception of most important problems reflects such changes, although sensitivity toward environmental problems in that state may be expected to be more keen than those in other states. Figure B2 shows the relationship between selected Gallup surveys, Wisconsin surveys, and the National Election surveys to be discussed shortly. Both the Wisconsin and the NES samples reflect marked increments in 1970, while the Gallup samples vary more or less randomly.

While one might allude to a great variety of indicators of increasing public sensitivity toward environmental problems, the greatest credibility and accuracy can be attributed to only a few indicators. Among the least biased time series indicators of growing public interest is Munton and Brady's (1970:5, 19ff) analysis of New York Times content (from data provided by James N. Rosenau). Using their data, it is possible to compare the growing interest in environmental issues in both the media and the public at large. This comparison (Figure B3) indicates that public interest developed before the media content began to reflect that interest. Generally, a great increase of attention to environmental issues had occurred by 1970. It is suggested that the 1968 period was one of unusually low interest in environmental issues compared to the years before and after. The national election study data indicate, however, that no difference was detected in the level of environmental interest between 1966 and 1968.¹

¹The small N for 1966 (1,291) produced only 19 persons mentioning environment-related codes as the MIP.



Key:

- National Election Studies
- Buttel (1972) Wisconsin Study
- Selected Gallup Studies (See Figure B1)

Figure B2.--Environment MIP as indicated by selected studies, 1968-1972.

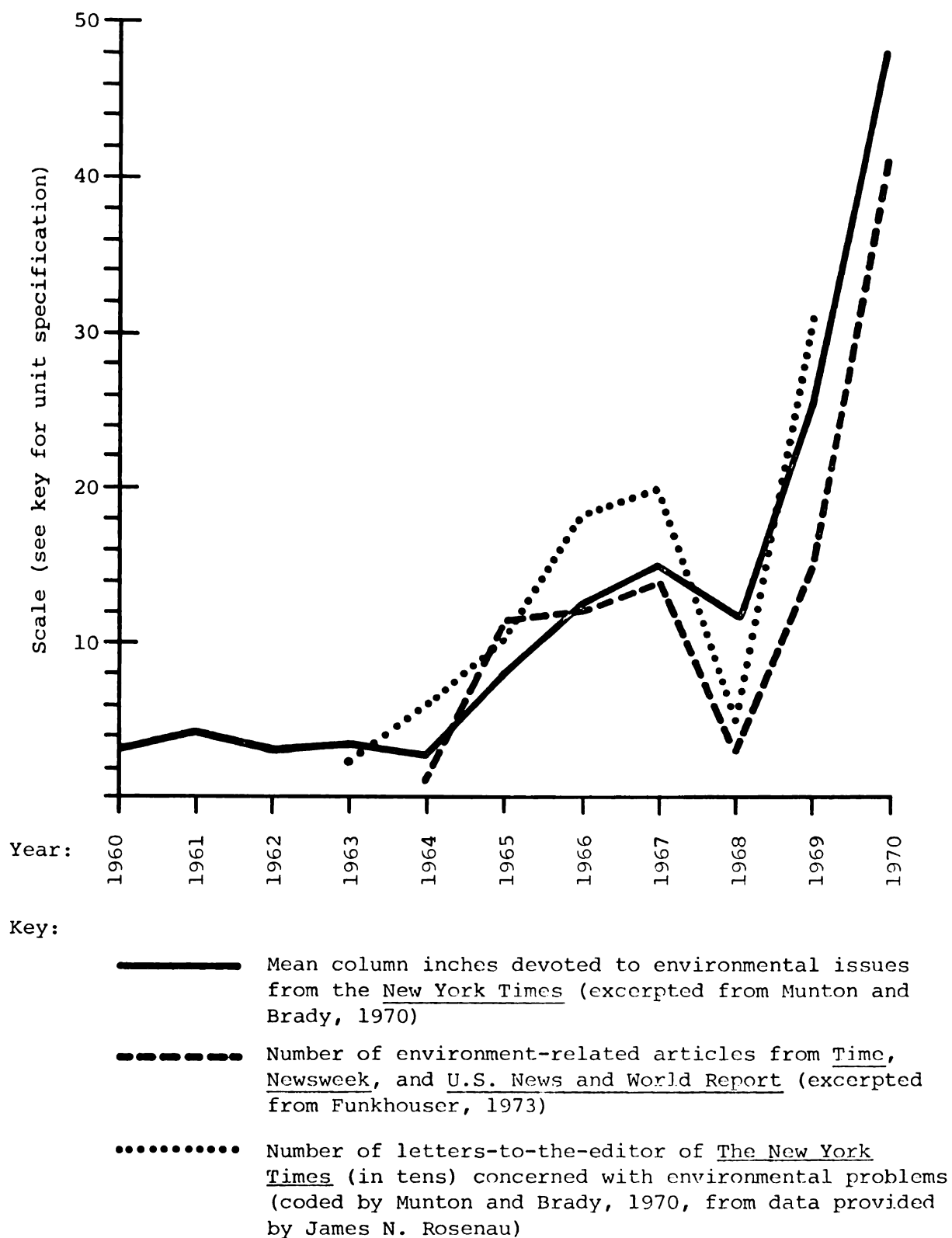
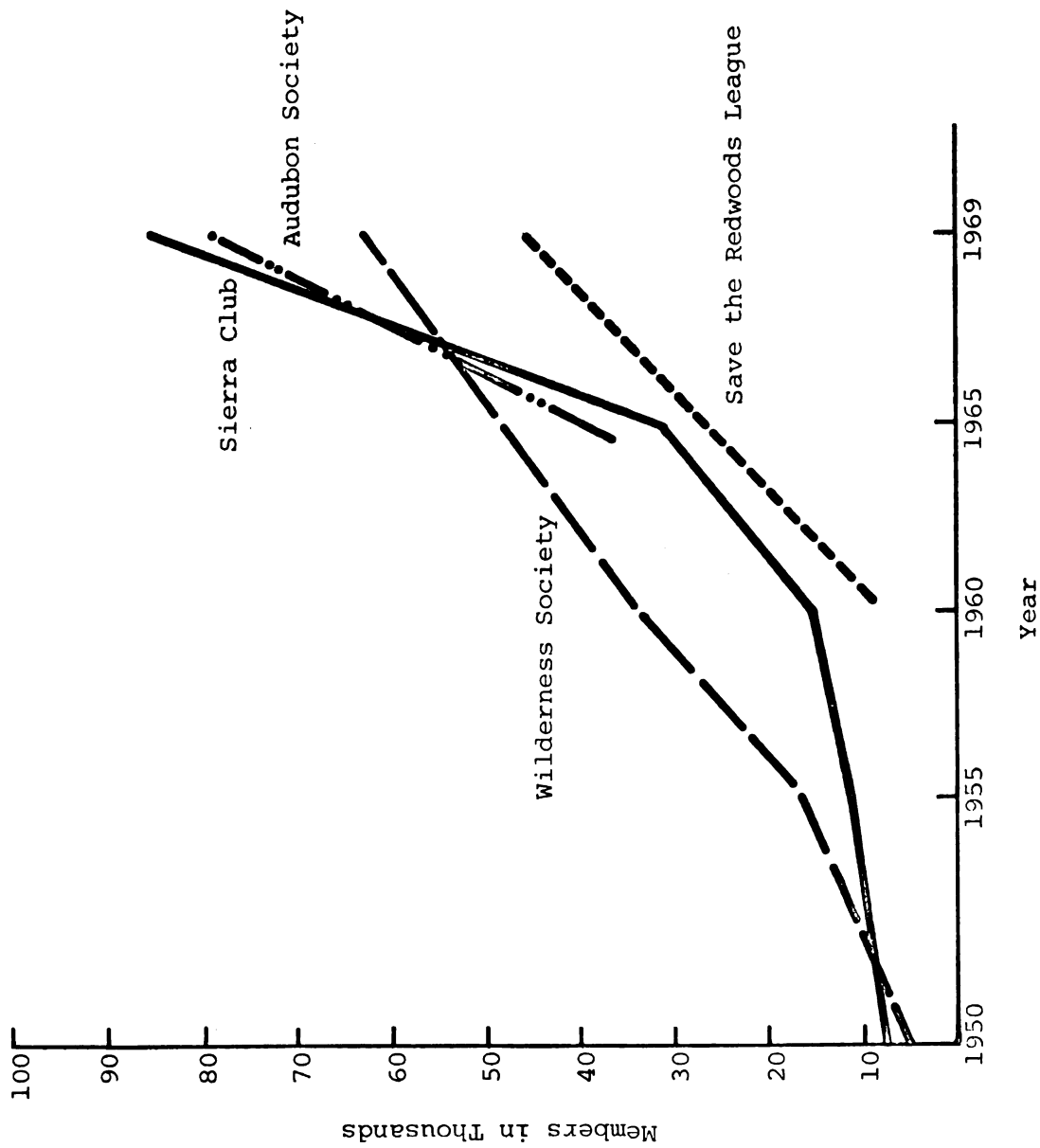


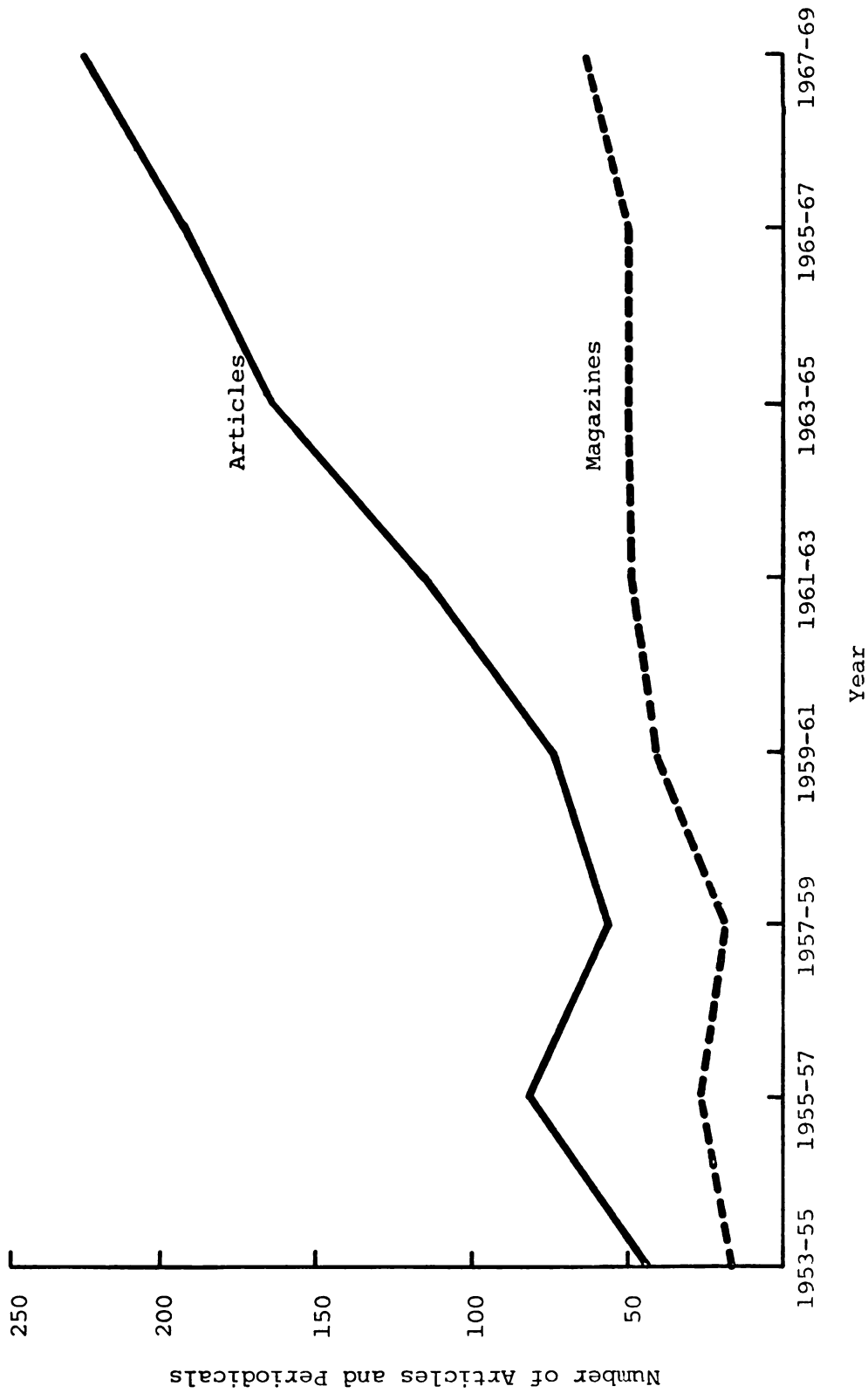
Figure B3.--Development of environmental interest by selected indicators of the printed media content over time.

The "dip" in 1968 that is suggested by the Munton and Brady analysis may be attributed to the presidential election, which might affect the media content and content of letters to the editor but not necessarily influence the number of people naming environment as the MIP. In the next presidential election year, however, the focus of the 1972 campaign (conspicuously silent on environmental problems) might have had a dampening effect on EMIP frequency. Unfortunately, it is beyond the scope of the present research to assess the bias inherent in the National Election Studies. Since these studies are divided into pre- and postelection segments, it is assumed that "campaign effects," if any, are minimal, acceptable errors of a conservative nature.



^aData supplied by the organizations. Excerpted from McEvoy, 1972.

Figure 34.--Growth rates (in absolute numbers of members) of four conservation organizations--The Sierra Club, Wilderness Society, Audubon Society, and Save the Redwoods League--1950-1969.^a



Source: McEvoy, 1972.

Figure B5.--Growth rates (in frequency) of articles concerning environmental issues in selected periodicals and number of periodicals (U.S. only) containing environmental articles--1953 to 1969.

APPENDIX C

QUESTION FORMATS AND CODES FOR DATA USED IN THIS STUDY

APPENDIX C

QUESTION FORMATS AND CODES FOR DATA

USED IN THIS STUDY

The following questions, codes, and encoding details are excerpted from the codebooks for the 1970 and 1972 National Election Studies. The codebooks have been made available by the Center for Political Studies, Ann Arbor, Michigan.

A. MIP Question (1970 Format)¹

"As you well know, there are many serious problems in this country and in other parts of the world. We'd like to start out by talking with you about some of them. What do you personally feel are the most important problems which the government in Washington should try to take care of?" (If fewer than 3--"Any others")

Mentions of major problems which the government should take care of were coded in order of importance, or in order of mention if importance was not clear. One hundred eighteen codes are listed. Five are considered reflective of positive environmental bias in this study:

1. Population increase, birth control;
2. Conservation of natural resources, forests, parks, wildlife, minerals; ecology problems;
3. Prevention of water, air pollution, pollution; environmental problems;

¹Format differences between 1970 and 1972 are discussed on p. 87.

4. General references to natural resources;
5. Other agricultural and natural resource problems.

B. The Pollution Scale

"There are many sources of air and water pollution; one of them is private industry. Some say the government should force private industry to stop its polluting. Others believe industries should be left alone to handle these matters in their own way. Given these two approaches . . . [card shown to respondent] . . . where would you place yourself on this scale, or haven't you thought much about this?"

The exact number the respondent gave was coded. If a range of numbers was given, the midpoint was coded, rounding to the nearest even number when necessary. If the range given by the respondent was 5 or greater, the response was coded as "not applicable." The codes are:

0. Haven't thought much about this.
1. Government should force private industry to stop polluting.
- 2.
- 3.
- 4.
- 5.
- 6.
7. Industries should handle pollution in their own way.
8. Don't know.
9. Not applicable.

C. Sex

The respondent's sex is coded as:

1. Male
2. Female
9. Not applicable

D. Race

The respondent's race is coded as:

1. White
2. Negro
3. Puerto Rican
4. Mexican-American, Chicano
5. Oriental
6. American Indian
7. Other
9. Not applicable

E. Where Raised

"Were you brought up mostly on a farm, in a town, in a small city, or in a large city?"

The respondent's perception of the size of town or city is coded as follows:

- | | |
|-----------------------------|-------------------------------|
| 1. In the country | 5. Combination of communities |
| 2. Town | 6. Suburb, NA size |
| 3. Small city | 7. Other |
| 4. Large city, city NA size | 8. Don't know |
| | 9. Not applicable |

F. Where Living

Nonmetropolitan residence was derived from the sum of codes 1-7 for respondents not in an SMSA PSU. Codes 1-7 reflect the distance from the place of interview to the center of the central city of the nearest SMSA.

1. Under 15 miles
2. 15-24.999 miles
3. 25-49.999 miles
4. 50-99.999 miles
5. 100-199.999 miles
6. 200-399.999 miles
7. 400 miles or over
0. Inappropriate, respondent lives in an SMSA PSU.

Code 0 is taken to be metropolitan residence.

G. Region--No data were collected for Alaska or Hawaii.

0. New England: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont
1. Middle Atlantic: Delaware, New Jersey, New York, Pennsylvania
2. East North Central: Illinois, Indiana, Michigan, Ohio, Wisconsin
3. West North Central: Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota
4. Solid South: Virginia, Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Texas
5. Border States: Kentucky, Maryland, Oklahoma, Tennessee, Washington, D.C., West Virginia
6. Mountain States: Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming
7. Pacific States: California, Oregon, Washington

H. Party Identification

"Generally speaking, do you usually think of yourself as a Republican, a Democrat, an Independent, or what?"

[If Republican]"Would you call yourself a strong Republican or a not very strong Republican?"

[If Democrat]"Would you call yourself a strong Democrat or a not very strong Democrat?"

[If Independent, no preference, or other]"Do you think of yourself as closer to the Republican or to the Democratic party?"

The respondent who says he has "no preference" and is closer to neither party is coded 3 (independent) if he seems to have some interest in politics. He is coded 8 (apolitical) if he seems to have little interest in politics. The "minor party" identifier who is closer to neither party is coded 7 (minor party). The codes are:

0. Strong Democrat
1. Not very strong Democrat
2. Independent--closer to Democrat
3. Independent--closer to neither
4. Independent--closer to Republican
5. Not very strong Republican
6. Strong Republican
7. Other minor party; refused to say
8. Apolitical
9. Not applicable, don't know

I. Liberalism/Conservatism Scale (data collected in 1972 only)

"We hear a lot of talk these days about liberals and conservatives. I'm going to show you a seven-point scale on which the political views that people might hold are arranged from extremely liberal to extremely conservative. . . . Where would you place yourself on this scale, or haven't you thought much about this?"

1. Extremely liberal
2. Liberal
3. Slightly liberal
4. Moderate, middle of the road
5. Conservative
7. Extremely conservative
8. Don't know
9. Not applicable
0. Haven't thought much about it

APPENDIX D

HISTOGRAMS OF AGE FREQUENCY IN TOTAL SAMPLE
AND EMIP SUBSAMPLE

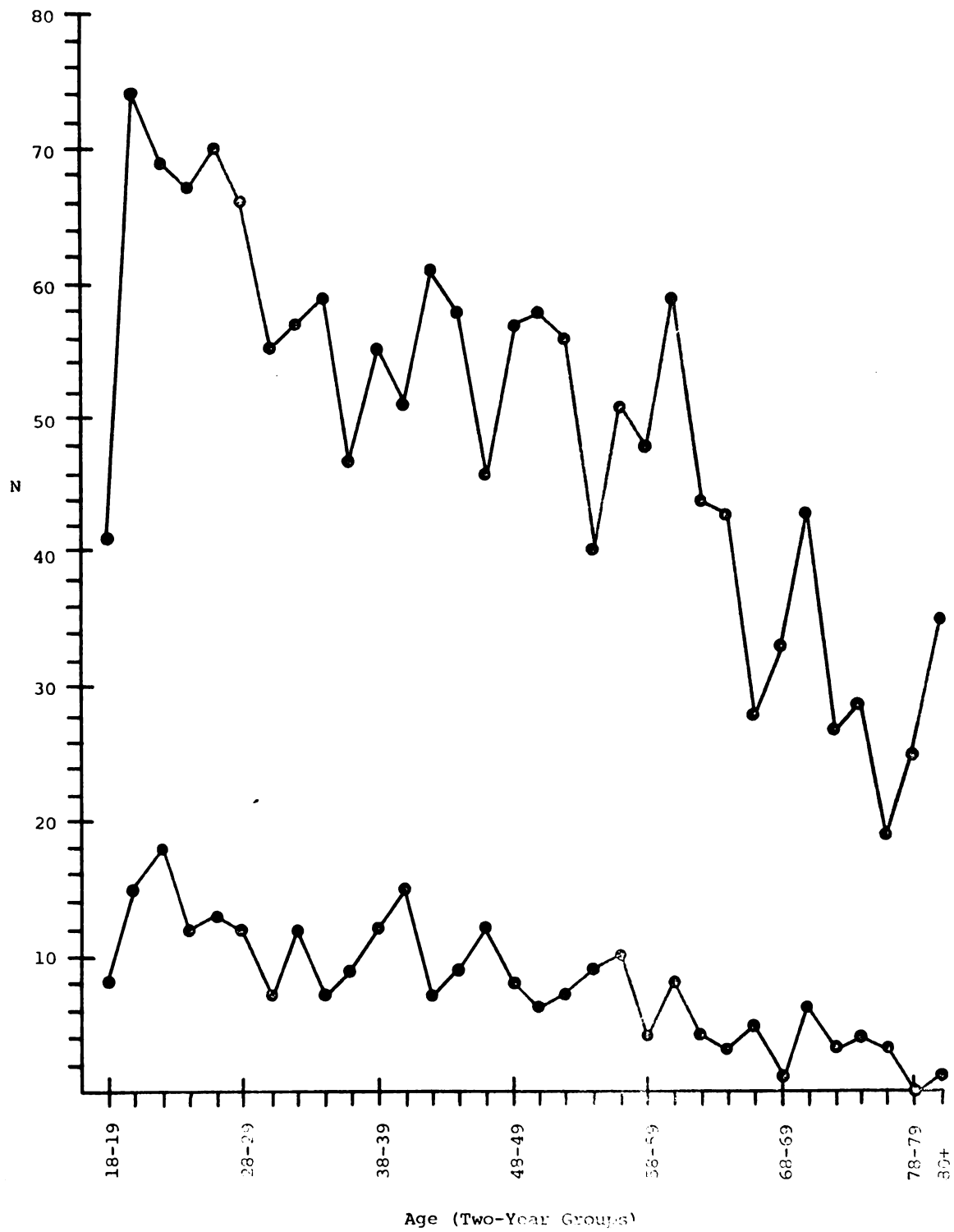


Figure D1. Histogram of EMIP subsample and total sample distributed by age, 1970. (N = 1571)

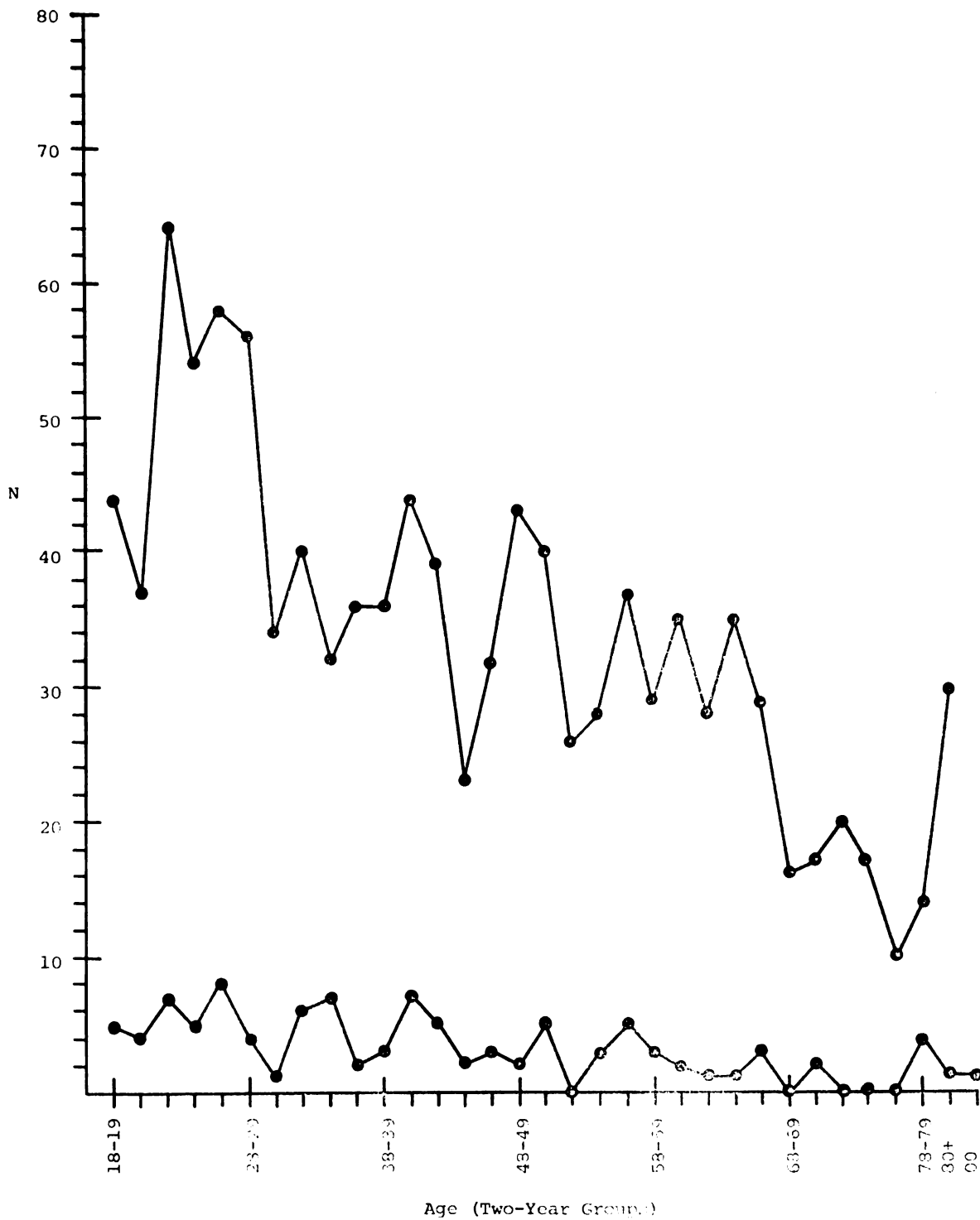


Figure D2.--Histogram of EMIP subsample and total sample distributed by age, 1972. (N = 1068)

APPENDIX E

AGE-BY-AGE PERCENTAGES FOR 1970 NES
AND 1970 CENSUS

APPENDIX E

AGE-BY-AGE PERCENTAGES FOR 1970 NES

AND 1970 CENSUS

Age	(N=133,567,845)	(N=1,571)	PD	Net Gain/Loss
	<u>1970 Census % in Category</u>	<u>1970 NES % in Category</u>		
18	2.8	1.3	-1.5	
19	2.7	1.3	-1.4	
20	2.6	2.6	...	
21	2.5	2.1	- .4	
22	2.6	2.2	- .4	
23	2.6	2.2	- .4	
24	2.0	2.3	+ .3	
25	2.1	2.0	- .1	
26	2.1	2.3	+ .2	-2.8
27	2.2	2.2	...	
28	1.9	2.5	+ .6	
29	1.8	1.7	- .1	
30	1.8	2.0	+ .2	
31	1.7	1.5	- .2	
32	1.7	2.2	+ .5	
33	1.6	1.5	- .1	
34	1.7	2.0	+ .3	
35	1.7	1.7	...	
36	1.6	2.0	+ .4	

<u>Age</u>	<u>1970 Census % in Category</u>	<u>1970 NES % in Category</u>	<u>PD</u>	<u>Gain/Loss</u>
37	1.7	1.0	- .7	
38	1.6	1.6	...	
39	1.7	1.9	+ .2	
40	1.8	1.4	- .4	
41	1.7	1.8	+ .1	
42	1.8	1.8	...	
43	1.8	2.0	+ .2	
44	1.8	1.5	- .3	
45	1.9	2.2	+ .3	
46	1.8	1.5	- .3	
47	1.8	1.4	- .4	
48	1.8	1.6	- .2	
49	1.8	2.0	+ .2	- .3
50	1.8	1.8	...	
51	1.7	1.9	+ .2	
52	1.6	2.2	+ .6	
53	1.6	1.4	- .2	
54	1.6	1.5	- .1	
55	1.6	1.0	- .6	
56	1.5	1.7	+ .2	
57	1.5	1.5	...	
58	1.4	1.6	+ .2	

<u>Age</u>	<u>1970 Census % in Category</u>	<u>1970 NES % in Category</u>	<u>PD</u>	<u>Gain/Loss</u>
59	1.4	1.4	...	
60	1.4	2.2	+ .8	
61	1.3	1.5	+ .2	
62	1.3	1.5	+ .2	
63	1.2	1.3	+ .1	
64	1.2	1.5	+ .3	
65	1.1	1.3	+ .2	
66	1.1	1.0	- .1	
67	1.1	.8	- .3	
68	1.0	1.2	+ .2	
69	1.0	.9	- .1	
70	1.0	2.1	+1.1	+3.2
71	.8	.6	- .2	
72	.8	1.2	+ .4	
73	.8	.6	- .2	
74	.7	1.1	+ .4	
75	.7	.8	+ .1	
76	.6	.7	+ .1	
77	.6	.5	- .1	
78	.5	1.0	+ .5	
79	.5	.6	+ .1	
80	.5	.3	- .2	
81+	<u>2.3</u>	<u>2.0</u>	- .3	
	99.9	100.0		

APPENDIX F

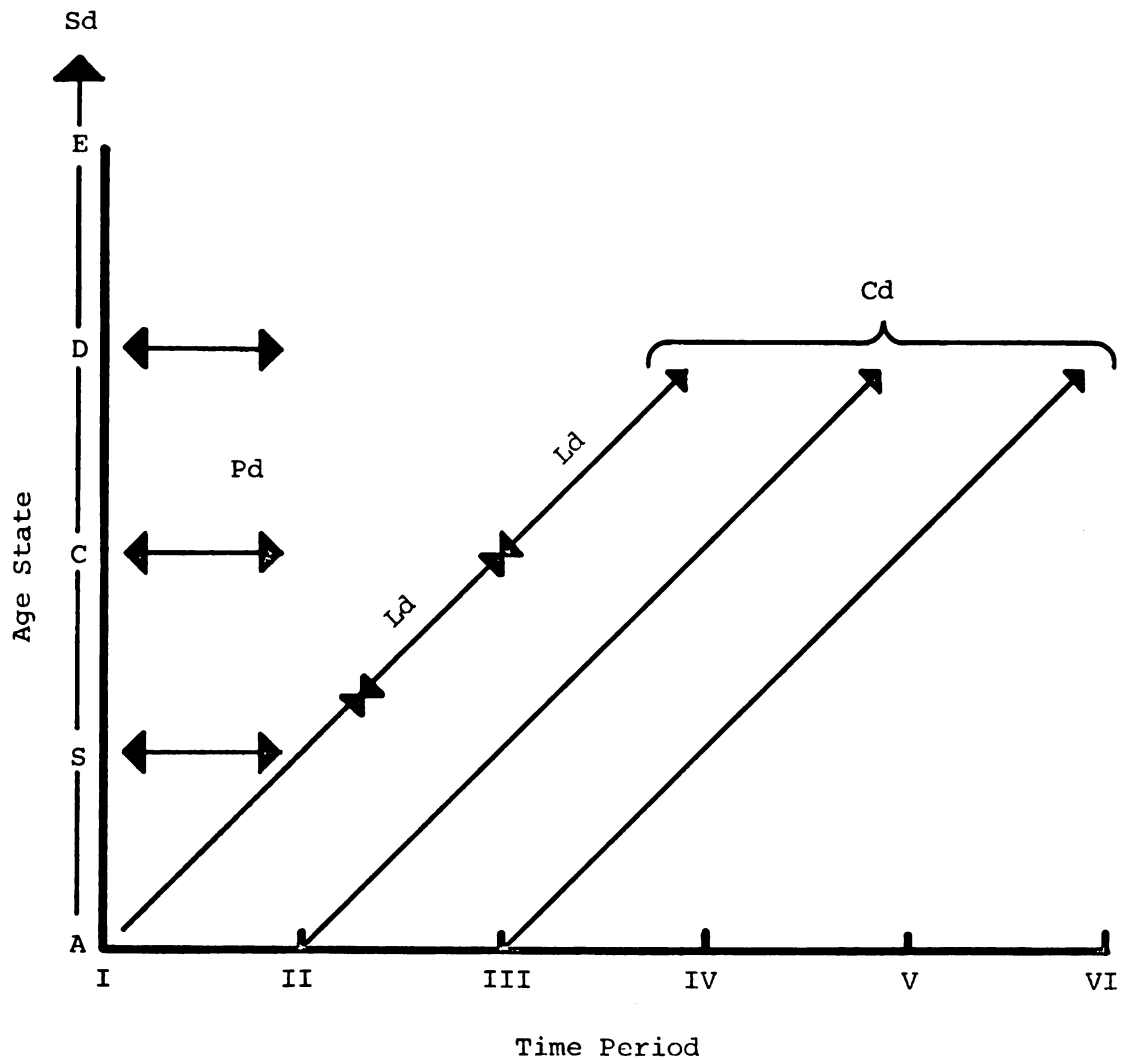
THE COMPLEXITIES OF AGE AS A VARIABLE

APPENDIX F

THE COMPLEXITIES OF AGE AS A VARIABLE

"A basic difficulty," noted Cohn, in separating the effects of age, cohort, and period of observation, "arises because each factor is defined empirically in terms of the other two, limiting the extent to which empirical analysis can guide interpretation" (1972:85). The age variable is composed of several distinct analytical dimensions, each of which implies different consequences for change, innovation, and conflict propensities. Riley et al. (1972: Ch.1) offered a theory of age stratification intended to explain the relationships in question and how they operate to make different age states unique in certain ways over time. The theory of age stratification dichotomizes age effects into structural and process elements (see Figure F1).

Structural elements focus on the influence of an event upon the age categories of people exposed to the event at a specific time. Period factors are represented in cross-sectional data and help to identify two important differences. Age strata differences (Sd) refer to the differential impact of an event across age states at a single point in time. This variable differentiates people by their birth dates and captures the unique historical effects that transpire between birth and the time of empirical examination. It also captures the different role positions within the social structure that are age stratified, i.e. parent-child, student-teacher. Period differences (Pd) refer to age-by-age differences between two or more periods or the net



Source: Riley, et al., 1972:31ff.

Structural Elements

Sd--Comparisons of age states, A-E at T-I.

Pd--Comparisons of period differences, A-I and A-II with B-I, B-II, or the sum of A-E (I) with A-E (II).

Process Elements

Ld--Comparisons of life cycle effects on a birth cohort, A-I to B-II changes, B-II to C-III changes.

Cd--Comparisons of age-by-age differences among cohorts, B-II through B-V with C-III through C-VI.

Figure F1.--Differentiation of age variables over time.

effects of these differences. Although period difference studies have several useful purposes, they do not constitute time series studies but rather serial cross-sectional studies. This variable captures the effect of differential rates of change across age states; i.e. a ten-year period change is reacted to differently by 20 and 70 year olds.

Process elements focus on the influence of an event or series of events on cohorts of people over time. Such studies require longitudinal data that amount to a quasi-panel technique. Although the same people are not subjects over the successive examination periods, the analysis accounts for the aging effects of people drawn by random samples by allowing the age states examined to change as the interval of successive examination changes. Instead of looking at 20 year olds in 1960 and 1970 (Pd), 20 year olds in 1960 and 30 year olds in 1970 are examined. Two important differences in such analysis are life course differences and cohort differences. Life course differences (Ld) refer to the aging effects of a specific birth cohort. This variable captures the historical and life course effects on a specific birth cohort; i.e. how do depression babies experience history? What are the common reactions to aging of all cohorts? Cohort differences (Cd) involve the age-by-age comparison of a sequence of birth cohorts, thus capturing not only the aging differences but the differential impact of history for the full range of age states (see Figure F1). This variable combines the effects of Ld and Sd to reveal the impact of specific periods on all age cohorts; i.e. what were the effects of the depression on all age states over time?

The single cross-section study can reflect only strata differences (Sd). At a minimum, two such studies constitute a cross-sectional sequence and can provide a basis for showing period differences (Pd). Longitudinal studies of life course differences (Ld) and cohort differences (Cd) require a much longer period of study to shed light on more than a very limited range of aging or on very few cohorts.

This study of the impact of the environmental movement involves the structural elements of age strata differences (Sd) in 1970 and 1972 and the period differences (Pd) of attention to environmental problems between the years studied for various age levels. Although the period of time covered by this study is sufficient for dramatic changes in the environmental movement, it is not sufficient to allow analysis of aging effects, which are assumed to be negligible between the two years studied. The movement is too recent to warrant a cohort analysis, although, in the long run, such cohort effects will be the most interesting products of the environmental movement, which began around 1970.

7

1

BIBLIOGRAPHY

BIBLIOGRAPHY

- Abrahamson, Edward. "Social Power and Commitment: A Theoretical Statement." American Sociological Review, XXIII (February, 1958), 15-22.
- Abrams, Philip. "Age and Generations." A Sociological Portrait. Edited by Paul Barker. Baltimore: Penguin Books, 1972.
- Adams, Stuart. "Status Congruency as a Variable in Small Group Performance." Social Forces, XXXII (October, 1953), 16-22.
- Albrecht, Stan L. "Environmental Social Movements and Counter-movements." Journal of Voluntary Action Research, I (October, 1972), 2-11.
- Associated Press. "Antipollution Drive to Cost Plants, Jobs." The State Journal [Lansing, Michigan], March 13, 1972.
- Back, Kurt W., and Gergen, Kenneth J. "Apocalyptic and Serial Time Orientations and the Structure of Opinions." Public Opinion Quarterly, XXVII (Fall, 1963), 427-442.
- Backstrom, Charles H., and Hursh, Gerald D. Survey Research. Evanston, Illinois: Northwestern University Press, 1963.
- Barber, Bernard. "Acculturation and Messianic Movements." American Sociological Review, VI (October, 1942), 663-669.
- Bartell, Ted, and St. George, Arthur. "A Trend Analysis of Environmentalists' Organizational Commitment, Tactic Advocacy, and Perceptions of Government." Los Angeles: University of California, January, 1973. (Mimeographed.)
- Bay, Christian. "Political and Apolitical Students: Facts in Search of a Theory." Journal of Social Issues, XXIII (July, 1967), 76-91.
- Becker, Howard S. "Notes on the Concept of Commitment." The American Journal of Sociology, LXVI (July, 1960), 32-40.
- Bell, Inge Powell. Core and the Strategy of Non-violence. New York: Random House, 1968.

- Benoit-Smullyan, Emile. "Status, Status Types, and Status Interrelations." American Sociological Review, IX (April, 1944), 151-161.
- Bernstein, Carl. "Last Jobs Leaving Virginia Town." The Washington Post, November 19, 1971.
- Bird, David. "Jersey Inherits Pollution Problem." The New York Times, December 5, 1971.
- Blau, Peter. Exchange and Power in Social Life. New York: John Wiley and Sons, Inc., 1967.
- _____, and Duncan, Otis Dudley. The American Occupational Structure. New York: John Wiley and Sons, Inc., 1967.
- Blumer, Herbert. "Collective Behavior." New Outline of the Principles of Sociology. Edited by A. M. Lee. 2nd Edition. New York: Barnes and Noble, 1946.
- _____. "Public Opinion and Public Opinion Polling." American Sociological Review, XIII (October, 1948), 542-549.
- Burton, Ian, and Kates, Robert W. (eds.). Readings in Resource Management and Conservation. Chicago: The University of Chicago Press, 1965.
- Buttel, Fred. "The Relationship of Socioeconomic Characteristics of Wisconsin Residents to Pollution Concern." Unpublished MA thesis, University of Wisconsin, 1972.
- Cain, Leonard D. "Life Course and Social Structure." Handbook of Modern Sociology. Edited by Robert E. Faris. Chicago: Rand McNally and Company, 1964.
- Calame, Byron. "Fearing Loss of Jobs, Unions Battle Efforts to Clean Environment." The Wall Street Journal, November 19, 1971.
- Campbell, Angus; Converse, Philip E.; Miller, Warren E.; and Stokes, Donald E. Elections and the Political Order. New York: John Wiley and Sons, Inc., 1960.
- Caplan, Nathan S., and Paige, Jeffery M. "A Study of Ghetto Rioters." Scientific American, CCIX (August, 1968), 15-21.
- Carlsson, Gosta, and Karlsson, Katarina. "Age, Cohorts and the Generation of Generations." American Sociological Review, XXXV (August, 1970), 710-718.

- Carper, Elsie. "Go-Slow Water Cleanup Urged." The Washington Post, December 8, 1971.
- Caspary, William R. "The 'Mood Theory': A Study of Public Opinion and Foreign Policy." American Political Science Review, LXIV (1970), 536-547.
- Clark, Carroll D. "The Concept of the Public." Southwestern Social Science Quarterly, XIII (March, 1933), 311-320.
- Cohn, Richard. "On Interpretation of Cohort and Period Analyses." Aging and Society. Edited by M. W. Riley, M. Johnson, and A. Foner. New York: Russell Sage Foundation, 1972.
- Coleman, James S. "The Methods of Sociology." A Design for Sociology. Edited by Robert Bierstedt. Philadelphia, Pa.: The American Academy of Political and Social Science, 1969.
- Converse, Philip E. "The Availability and Quality of Sample Survey Data in Archives Within the United States." Comparing Nations. Edited by Richard Merritt and Stein Rokkan. New Haven: Yale University Press, 1966.
- _____. "The Nature of Belief Systems in Mass Publics." Ideology and Discontent. Edited by David E. Apter. New York: The Free Press of Glencoe, 1964.
- Council on Economic Priorities. "Corporate Advertising and the Environment." Economic Priorities Report, II (September-October, 1971).
- Council on Environmental Quality. "The Economic Impact of Pollution Control." Report prepared for the Council on Environmental Quality, Department of Commerce, and Environmental Protection Agency. Washington: Government Printing Office, March, 1972.
- Crittenden, John. "Aging and Party Affiliation." Public Opinion Quarterly, XXVI (1962), 648-657.
- "Crusade for Clean Earth Runs Into Trouble." U.S. News and World Report, April 10, 1972.
- Cumming, Elaine, and Henry, William E. Growing Old. New York: Basic Books, 1961.
- Dahrendorf, Ralf. Class and Class Conflict in Industrial Society. Stanford, California: Stanford University Press, 1959.
- Davis, James. "A Formal Interpretation of the Theory of Relative Deprivation." Sociometry, XXII (1959), 280-296.

- Devall, William B. "A Report on College Students Active in the Environmental Movement." Unpublished paper, Humboldt State College, 1971.
- Dillman, Don A., and Christenson, James A. "The Public Value for Pollution Control." Social Behavior, Natural Resources, and the Environment. Edited by W. R. Burch, N. H. Cheek, and L. Taylor. New York: Harper and Row, Publishers, 1972.
- Downs, Anthony. "The Environment as a Problem: Up and Down With Ecology--The 'Issue-Attention cycle.'" The Public Interest, XXVIII (Summer, 1972), 38-50.
- Dunlap, Riley E., and Gale, Richard P. "Politics and Ecology: A Political Profile of Student Eco-Activists." Youth and Society, III (June, 1972), 379-397.
- Dunlap, Riley; Gale, Richard P.; and Rutherford, Brent M. "Concern for Environmental Rights Among College Students." The American Journal of Economics and Sociology, XXXII (January, 1973), 45-60.
- Eisenstadt, S. N. From Generation to Generation. London: The Free Press of Glencoe, 1956.
- Erskine, Hazel. "The Polls: Pollution and Industry." The Public Opinion Quarterly, XXXVI (Summer, 1972).
- _____. "The Polls: Pollution and Its Costs." The Public Opinion Quarterly, XXXVI (Spring, 1972).
- Evan, William M. "Cohort Analysis of Survey Data: A Procedure for Studying Long-Term Opinion Change." The Public Opinion Quarterly, XXIII (Spring, 1959), 63-72.
- Faich, Ronald G., and Gale, Richard P. "The Environmental Movement: From Recreation to Politics." Pacific Sociological Review, XIV (July, 1971), 270-287.
- Festinger, Leon, Riecken, Henry W., and Schachter, Stanley. When Prophecy Fails. New York: Harper and Row, Publishers, 1956.
- Feuer, Lewis S. The Conflict of Generations. New York: Basic Books, 1969.
- Flacks, Richard. "The Liberated Generation: An Exploration of the Roots of Student Protest." Journal of Social Issues, XXIII (1967), 52-75.

- Fogelson, Robert M., and Hill, Robert B. Who Riots? A Study of Participation in the 1967 Riots. New York: Bureau of Applied Social Research, Columbia University, 1967.
- Foner, Anne. "The Polity." Aging and Society. Edited by Matilda White Riley, Marilyn Johnson, and Anne Roner. New York: Russell Sage Foundation, 1972.
- Foote, Nelson N. "Identification as the Basis for a Theory of Motivation." American Sociological Review, XVI (February, 1951), 14-21.
- _____, and Hart, Clyde W. "Public Opinion and Collective Behavior." Group Relations at the Crossroads. Edited by Muzafer Sherif and M. O. Wilson. New York: Harper and Brothers, 1953.
- Fromm, Erich. Escape From Freedom. New York: Holt, Rinehart and Winston, 1960.
- Funkhouser, Ray. "The Issues of the Sixties: An Exploratory Study in the Dynamics of Public Opinion." Public Opinion Quarterly, XXXVII (Spring, 1973), 62-75.
- Gallup, George H. The Gallup Poll: Public Opinion 1935-1971. Vol. III. New York: Random House, 1972.
- Gallup Organization, Inc. "Gallup Opinion Index." #56 (February, 1970); #73 (July, 1971); #76 (October, 1971); #78 (December, 1971); #86 (August, 1971); #93 (February, 1973). Princeton, N.J.
- _____. Gallup Press Releases dated August 29, 1970; March 18, 1971; October 8, 1972. Princeton, New Jersey.
- Gamson, William A. "Rancorous Conflict in Community Politics." American Sociological Review, XXXI (January, 1966), 71-81.
- Gellen, Martin. "The Making of a Pollution-Industrial Complex." Ramparts, VIII (May, 1970), 22-27.
- Gergen, Kenneth J., and Back, Kurt W. "Communication in the Interview and the Disengaged Respondent." The Public Opinion Quarterly, XXX (1966), 385-398.
- Gerlach, Luther. "Participatory Ecology: An Embryonic Social Movement to Improve the Quality of Man's Environment." University of Minnesota, Department of Anthropology, n.d.
- Gerth, Hans H., and Mills, C. Wright (eds. trans.). From Max Weber: Essays in Sociology. New York: Oxford University Press, 1958.

- Geschwender, James A., and Singer, Benjamin D. "Deprivation and the Detroit Riot." Social Problems, XVII (Spring, 1970), 457-462.
- Glenn, Norval. "Aging, Disengagement, and Opinionation." The Public Opinion Quarterly, XXXIII (Spring, 1969), 17-33.
- _____. "Problems of Comparability in Trend Studies With Opinion Poll Data." The Public Opinion Quarterly, XXXIV (1970), 82-91.
- _____, and Grimes, Michael. "Aging, Voting and Political Interest." American Sociological Review, XXXIII (August, 1968), 563-575.
- Goffman, Irving W. "Status Consistency and Preference for Change in Power Distribution." American Sociological Review, XXII (June, 1957), 275-281.
- Gusfield, Joseph R. "The Problem of Generations in an Organizational Structure." Social Forces, XXXV (May, 1957), 323-330.
- _____. Symbolic Crusade. Urbana, Illinois: University of Illinois Press, 1963.
- Hajda, Jan. "Alienation and Integration of Student Intellectuals." American Sociological Review, XXVI (October, 1961), 758-777.
- Harry, Joseph; Gale, Richard; and Hendee, John. "Conservation: An Upper-Middle Class Social Movement." Journal of Leisure Research, I, 3 (1969), 246-254.
- Heberle, Rudolph. Social Movements: An Introduction to Political Sociology. New York: Appleton-Century-Crofts, Inc., 1951.
- Herzog, Elizabeth G. "Patterns of Controversy." Public Opinion Quarterly, XIII (1949), 39-52.
- Hoffer, Eric. The True Believer. New York: New American Library, 1958.
- Holmstrom, David. "Ecology Backlash Accelerates." The Christian Science Monitor, November 29, 1971.
- Holzner, Burkart. "The Concept 'Integration' in Sociological Theory." The Sociological Quarterly, VIII (Winter, 1967), 51-62.
- Homans, George Caspar. Social Behavior: Its Elementary Forms. New York: Harcourt, Brace and World, Inc., 1961.
- Hoyt, Monty. "More Balanced View Urged for Environmental Protection." The Christian Science Monitor, November 19, 1971.

- _____. "Pollution Laws Closing Plants by Hundreds." The Christian Science Monitor, September 11, 1971.
- Hyman, Herbert H. Secondary Analysis of Sample Surveys. New York: John Wiley and Sons, 1972.
- Hyman, Sidney. Youth in Politics. New York: Basic Books, 1972.
- Institute of Industrial Relations. Jobs and the Environment: Whose Jobs? Whose Environment? Berkeley, California: University of California, Institute of Industrial Relations, 1973.
- Kelley, Jonathan. "Causal Chain Models for the Socio-Economic Career." American Sociological Review, XXXVIII (August, 1973), 481-493.
- Keniston, Kenneth. The Uncommitted. New York: Dell Publishing Company, 1960.
- Kerckhoff, Allan C.; Back, Kurt W.; and Miller, Norman. "Sociometric Patterns in Hysterical Contagion." Sociometry, XXVIII (March, 1965), 2-15.
- Kerner, Otto. Report of the National Advisory Commission on Civil Disorders. New York: Bantam Books, 1968.
- Killian, Lewis M. "Social Movements." Handbook of Modern Sociology. Edited by Robert E. L. Faris. Chicago: Rand McNally Company, 1964.
- Kish, Leslie. Survey Sampling. New York: John Wiley and Sons, 1964.
- Klecka, William R. "Applying Political Generations to the Study of Political Behavior: A Conort Analysis." The Public Opinion Quarterly, XXXV (Fall, 1971), 358-373.
- Kornhauser, William. The Politics of Mass Society. Glencoe, Illinois: The Free Press, 1959.
- _____. "Social Bases of Political Commitment: A Study of Liberals and Radicals." Human Behavior and Social Processes. Edited by Arnold M. Rose. Boston: Houghton-Mifflin Company, 1962.
- Lane, Robert. "Fathers and Sons: Foundations of Political Belief." American Sociological Review, XXIV (August, 1959), 502-510.
- Lansing, John B., and Kish, Leslie. "Family Life Cycle as an Independent Variable." American Sociological Review, XXII (October, 1957), 512-519.

- Lasswell, Harold D., and Kaplan, Abraham. Power and Society: A Framework for Political Inquiry. New Haven: Yale University Press, 1950.
- Lee, Robert E. "Realm Saver or World Saver? The Enigma of the Successful Eco-Activist." Berkeley, California: University of California, School of Forestry and Conservation, 1970. (Mimeographed.)
- Lenski, Gerhard E. "Status Crystallization: A Non-Vertical Dimension of Social Status." American Sociological Review, XIX (August, 1954), 405-413.
- Linton, Ralph. "Nativistic Movements." American Anthropologist, XLV (1943), 230-240.
- Lippmann, Walter. The Phantom Public. New York: Harcourt, Brace and Company, 1925.
- Lipset, Seymour Martin, and Altbach, Philip G. "Student Politics and Higher Education in the U.S." Student Politics. Edited by S. M. Lipset. New York: Basic Books, 1967.
- Lipset, Seymour Martin, and Ladd, Everett Carll, Jr. "College Generations--From the 1930's to the 1960's." The Public Interest, XXV (Fall, 1971), 99-113.
- Lipset, Seymour M.; Lazarsfeld, Paul F.; Barton, Allen H.; and Linz, Juan. "The Psychology of Voting: An Analysis of Political Behavior." Handbook of Social Psychology. Vol. II. Edited by Gardner Lindzey. Reading, Mass.: Addison-Wesley, 1954.
- Lystad, Mary H. "Social Alienation." Sociological Quarterly, XIII (Winter, 1972), 90-113.
- McEvoy, James. The American Public's Concern with the Environment: A Study of Public Opinion. Davis, California: Institute of Governmental Affairs, University of California, 1971. Reprinted in Social Science, Natural Resources and the Environment. Edited by William Burch, Neil Cheek, and Lee Taylor. New York: Harper and Row, 1972.
- _____. "The Social, Psychological and Value Characteristics of Conservationists and Preservationists in the United States." Davis, California: University of California, Department of Sociology, 1971. (Mimeographed.)
- McLaughlin, Barry (ed.). Studies in Social Movements. New York: Free Press, 1969.

McNeil, Kenneth, and Thompson, James D. "The Regeneration of Social Organizations." American Sociological Review, XXXVI (August, 1971), 624-637.

Mannheim, Karl. "Das Problem der Generationen." Kölner Vierteljahrshefte für Soziologie. 7 Jahrg., Heft 2, Heft 3 (1928), 311. Reproduced in Philip G. Altbach and Robert S. Laufer. The New Pilgrims. New York: David McKay Co., Inc., 1972.

Marias, Julian. Generations. Translated by Harold C. Raley. University, Alabama: The University of Alabama Press, 1967.

Mason, Karen Oppenheim; Mason, William M.; Winsborough, H. H.; and Poole, W. Kenneth. "Some Methodological Issues in Cohort Analysis of Archival Data." American Sociological Review, XXXVIII (April, 1973), 242-258.

Matza, David. "Position and Behavior Patterns of Youth." Handbook of Modern Sociology. Edited by R. E. L. Faris. Chicago: Rand McNally, 1964.

Milbrath, Lester W. Political Participation. Chicago: Rand McNally and Company, 1965.

Molotch, Harvey. "Oil in St. Barbara and Power in America." Sociological Inquiry, XL (Winter, 1970), 131-144.

Morrison, Denton E. "The Environmental Movement: Conflict Dynamics." Journal of Voluntary Action Research, II (April, 1973).

_____. "Some Notes Toward Theory on Relative Deprivation, Social Movements and Social Change." American Behavioral Scientist, XIV (May/June, 1971), 675-690.

Morrison, Denton E.; Hornback, Kenneth E.; and Warner, W. Keith. "The Environmental Movement: Some Preliminary Observations and Predictions." Social Behavior, Natural Resources, and the Environment. Edited by William Burch, Neil Check and Lee Taylor. New York: Harper and Row, 1972.

Morrison, Denton E., and Steeves, Allan. "Deprivation, Discontent and Social Movement Participation." Rural Sociology, XXXII (December, 1967), 414-434.

Munton, Donald, and Brady, Linda. "American Public Opinion and Environmental Pollution." Unpublished technical report, Ohio State University, Behavioral Sciences Laboratory, Department of Political Science, 1970.

National Academy of Sciences. Environmental Quality and Social Behavior: Strategies for Research. Washington, D.C.: National Academy of Sciences, 1973.

National Center for Voluntary Action. Environmental Volunteers in America. Published by the National Center for Voluntary Action for the Office of Research and Monitoring, Environmental Protection Agency, 1973.

National Wildlife Federation. "More for Natural Resources . . . Less for Space, Defense, and Foreign Aid." National Wildlife, XVIII (1970), 18-20.

Neuhaus, Richard. In Defense of People. New York: The Macmillan Co., 1971.

Oberschall, Anthony. Social Conflict and Social Movements. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1973.

"Oregon Coalition Wary on Ecology." The New York Times, December 26, 1971.

Phillips, Derek L. "Social Class, Social Participation, and Happiness: A Consideration of 'Interaction-Opportunities' and 'Investment.'" Sociological Quarterly, X (Winter, 1969), 3-22.

Pinard, Maurice. "Structural Attachments and Political Support in Urban Politics." The American Journal of Sociology, LXVIII (March, 1963), 513-526.

Pittman, Mark. Unpublished MA thesis in progress, Michigan State University, Department of Sociology, 1974.

"Pollution and Industry: Pros, Cons of Growing Fight." U.S. News and World Report, November 22, 1971.

Rickson, Roy E., and Simpkins, Charles E. "Industrial Organizations and the Ecological Process: The Case of Water Pollution." Complex Organizations and Their Environments. Edited by Merlin B. Brinkerhoff and Phillip R. Kuny. Dubuque, Iowa: W. C. Brown Co., 1972.

Riley, Matilda White, and Foner, Anne. Aging and Society. Vol. I: An Inventory of Research Findings. New York: Russell Sage Foundation, 1968.

Riley, Matilda White; Johnson, Marylyn; and Foner, Anne. Aging and Society: A Sociology of Age Stratification. New York: Russell Sage Foundation, 1972.

"The Rise of Anti-Ecology." Time, August 3, 1970.

Rogers, Everett M., and Shoemaker, E. Floyd. Communication of Innovations. New York: The Free Press, 1971.

Rosenau, James N. Public Opinion and Foreign Policy: An Operational Formulation. New York: Random House, 1961.

Rush, Gary B., and Denisoff, R. Serge. Social and Political Movements. New York: Appleton-Century-Crofts, 1971.

Ryder, Norman B. "The Cohort as a Concept in the Study of Social Change." American Sociological Review, XXX (December, 1965), 843-861.

_____. "Notes on the Concept of a Population." The American Journal of Sociology, LXIX (March, 1964), 447-463.

Sarnoff, I. Personality Dynamics and Development. New York: John Wiley and Sons, 1962.

"Sierra Club Forced to Cut Its Budget and Trim Staff." The New York Times, February 20, 1972.

Sigler, Jeanne, and Langowski, Alan. "Citizen Attitudes Toward the Environment: An Appraisal of the Research." Unpublished technical report, Survey Research Laboratory, University of Illinois, 1971.

Simon, Rita James. "Public Attitudes Toward Population and Pollution." The Public Opinion Quarterly, XXXV (Spring, 1971), 93-99.

Smelser, Neil J. Theory of Collective Behavior. New York: The Free Press, 1962.

Smith, Constance, and Freedman, Anne. Voluntary Associations. Cambridge, Mass.: Harvard University Press, 1972.

Smith, Thomas S. "Structural Crystallization, Status Inconsistency and Political Partisanship." American Sociological Review, XXXIV (December, 1969), 907-921.

Soloman, Frederick, and Fishman, Jacob R. "Youth and Peace: A Psychological Study of Student Peace Demonstrators." Journal of Social Issues, XX (October, 1964), 1-29.

Stebbins, Robert A. "On Misunderstanding the Concept of Commitment: A Theoretical Clarification." Social Forces, XLVIII (June, 1970), 526-529.

- Tognacci, Louis N.; Weigel, Russell H.; Wideen, Marvin F.; and Vernon, David A. "Environmental Quality: How Universal Is Public Concern?" Environment and Behavior, IV (1972), 73-86.
- Trela, James E. "Age Structure of Voluntary Associations and Political Self-Interest Among the Aged." Sociological Quarterly, XIII (Spring, 1972), 244-252.
- Trop, Cecile, and Roos, Leslie L., Jr. "Public Opinion and the Environment." The Politics of Ecosuicide. Edited by Leslie L. Roos, Jr. New York: Holt, Rinehart and Winston, Inc., 1971.
- Turner, Ralph H.; and Killian, Lewis M. Collective Behavior. Englewood Cliffs, N.J.: Prentice-Hall, Inc.; 1st edition, 1957; 2nd edition, 1972.
- "Up the Wall." Newsweek, March 18, 1974, p. 99.
- U.S. Senate. Committee on Public Works, Subcommittee on Air and Water Pollution. Economic Dislocation Resulting From Environmental Controls. Hearings, May 17-18, June 28, 1971. Serial Number 92-H19. Washington: Government Printing Office, 1971.
- Wada, G., and Davies, J. C. "Riots and Rioters." Western Political Quarterly, X (December, 1957), 864-874.
- Waisanen, Fred B. "Actors, Social Systems, and the Modernization Process." Carnegie Seminar, April, 1968. Department of Government, Indiana University, 1968.
- Walinsky, Adam. "The Blue-Collar Movement." Earth Day--The Beginning. Edited by Environmental Action. New York: Bantam Books, 1970.
- Weber, Max. The Theory of Social and Economic Organization. Translated by A. M. Henderson and Talcott Parsons. New York: The Free Press, 1947.
- "What Business Thinks: Fortune 500--Yankelovich Survey." Fortune, LXXXI (February, 1970), 91-98ff.
- Wilensky, Harold L. "Orderly Careers and Social Participation: Impact of Work History on Social Integration in the Middle Mass." American Sociological Review, XXVI (October, 1961), 521-539.
- Wilson, John. Introduction to Social Movements. New York: Basic Books, 1973.
- Woodcock, Leonard. "Changing National Priorities." Hearings before the Subcommittee on Economy in Government of the Joint Economic Committee. 91st Congress of the United States. Second Session. June 15-18, 1970. Washington: Government Printing Office, 1970.

_____. "Economic Dislocation Resulting From Environmental Controls." Hearings before the Subcommittee on Air and Water Pollution of the Committee on Public Works. U.S. Senate, 92nd Congress of the United States, May 17-18 and June 28, 1971. Washington: Government Printing Office, 1971.

_____. "Labor and the Economic Impact of Environmental Control Requirements." Jobs and the Environment: Whose Jobs? Whose Environment? Berkeley, California: Institute of Industrial Relations, University of California, 1973.

Zald, Mayer N., and Ash, Roberta. "Social Movement Organizations: Growth, Decay and Change." Social Forces, XLIV (March, 1966), 327-341.

Zeitlin, Maurice. "Political Generations in the Cuban Working Class." American Journal of Sociology, LXXI (November, 1966), 493-508.

MICHIGAN STATE UNIV. LIBRARIES



31293101555237