

ENVIRONMENTAL CHANGE AND
RELIGIOUS BELIEF SYSTEMS

Thesis for the Degree of M. A.
MICHIGAN STATE UNIVERSITY
SHELBY STEWMAN
1968

ABSTRACT

ENVIRONMENTAL CHANGE AND RELIGIOUS BELIEF SYSTEMS

by
Shelby Stewman

The objective of this thesis was to investigate the utility of certain theoretical constructs in terms of predisposing belief system change in situations of environmental change.

Three specific indices were used. The index of socio-economic status consisted of father's occupation, education, and family annual income. A community index was composed of size and type of community and size of high school graduating class. The "significant other" religious homogeneity index included the number of "significant others" relative to identical or different religious preference to the respondent and positive or negative influence upon the respondent. The research site was that of a large Midwestern university, Michigan State University. The samples included 611 freshmen and 400 seniors. Thus, although specific changes of an individual's religious belief system could not be tested, the design used did enable a comparison of freshman and senior

aggregates in a manner to validate explicit social structural constructs predisposing an individual to change his perspective. Furthermore, within each index, differential amounts of change were related to differential location within that index. The following results were obtained:

1. There is a considerable decrease in orthodoxy and fundamentalism and increase in liberalism and secularism during college, despite controlling for societal secularization.

2. The greatest amount of religious belief system change between the entering freshman and graduating senior, when socio-economic status is controlled, occurs in the persons of low and medium socio-economic locations.

3. The greatest amount of religious belief system change between the entering freshman and graduating senior, when the community index is controlled, is in the person from a "transitional" community; that is, a community located between rural and urban "types"; the next greatest amount of change is within the "rural" community, and the least, but yet considerable, amount of change is in the "urban" community.

4. The greatest amount of religious belief system change between the entering freshman and graduating senior, when "significant other" religious homogeneity is controlled, occurs in the person having heterogeneous "significant others."

The import of the social structural constructs in terms of predisposing differential amounts of change was substantiated by the research findings. Although the focus of this study was on college population and the environmental change of individuals entering college, it would seem that the theoretical implications of this study are multiple, especially relative to environmental change, whether educational, occupational, geographical, or in terms of associational networks. Finally, although this study focuses on static aspects of the interaction of environmental and belief change, the findings obtained point to the import of their inclusion within a study focusing on the dynamic processes occurring within individuals who have made an environmental change.

ENVIRONMENTAL CHANGE
AND
RELIGIOUS BELIEF SYSTEMS

By
Shelby ^{Steward} Stewman

A THESIS

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

MASTER OF ARTS

Department of Sociology

1968

REIDGROSS BELIEF SYSTEMS
AND
ENVIRONMENTAL CHANGE

By

THEODORE W. BROWN

A THESIS

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

MASTER OF ARTS

Department of Sociology

1968

25/4/11
10:00

ACKNOWLEDGEMENTS

I would like to express my appreciation to some of the many persons who gave willingly of their time and energy throughout the thesis process. Dr. James B. McKee was generous with his time and interest both in terms of study within the sociology of religion and the supervision of this research. Gratitude is also extended to other members of the guidance committee, Drs. Denton Morrison and Donald W. Olmsted, for their suggestions, criticisms, and interest in this research project.

I am especially indebted to my co-researcher, Paul W. Aardsma, for invaluable support, ingenuity, and perseverance in all phases of this research. Thomas Goodale's supervision and cooperation in the gathering of the freshman sample data is most appreciated.

Lastly, I wish to thank my wife, Cherry, for moral support which brightened each phase of this research process.

INDEX

INTRODUCTION.	1
THE PRESENT RESEARCH	3
RESEARCH DESIGN	11
Hypotheses	11
Operational Definition of Belief System	17
Construction of Indices.	21
Research Population and Sample	29
Instrument Adaptation	31
RESULTS AND DISCUSSION	34
Profile of Belief System Change.	34
Socio-Economic Status and Belief System Change	38
Type Community and Belief System Change.	42
"SO" Religious Homogeneity and Belief System Change	45
IMPLICATIONS AND CONCLUSION	48
REFERENCES CITED	52
APPENDIX: QUESTIONNAIRES.	55

INDEX OF FIGURES AND TABLES

Figure	Page
1. Mean Number of Items Agreed With Within Four Categories of Freshman and Senior Samples (1967) Compared With Toch-Anderson Study of Freshman (1963)	36
Table	
1. Correlation of Belief Inventory Items for Senior and Freshman Samples, 1967	20
2a. Percentage of Type Occupation Controlled by Education and Income - Freshman Sample, 1967	23
2b. Comparison of Education with Annual Income Senior Sample, 1967	23
2c. Comparison of Education with Annual Income Freshman Sample, 1967.	23
3a. Size and Type of Community - Freshman Sample, 1967	25
3b. Size and Type of Community - Senior Sample, 1967.	25
3c. Type Community and Size of High School Graduating Class - Freshman Sample, 1967.	26
3d. Type Community and Size of High School Graduating Class - Senior Sample, 1967	26
3e. Size of Community and Size of High School Graduating Class - Freshman Sample, 1967.	27
3f. Size of Community and Size of High School Graduating Class - Senior Sample, 1967.	27

4. Standard Deviations of Means in Four Categories of Freshman and Senior Samples (1967) Compared with Toch-Anderson Studies of 1960, 1961, 1963 . . .	33
5. Mean Number of Items Agreed Within Four Categories of Freshman and Senior Samples (1967) Compared With Toch-Anderson Studies of 1960, 1961, 1963	35
6a. Percentages of Freshman Sample's Type of Belief System by Socio-Economic Status	40
6b. Percentages of Senior Sample's Type of Belief System by Socio-Economic Status	40
7a. Percentages of Freshman Sample's Type of Belief System (67% Criterion) by Community Index.	43
7b. Percentages of Senior Sample's Type of Belief System (67% Criterion) by Community Index	43
8a. Percentages of Freshman Sample's Type of Belief System (67% Criterion) by "Significant Other" Religious Homogeneity Index.	47
8b. Percentages of Senior Sample's Type of Belief System (67% Criterion) by "Significant Other" Religious Homogeneity Index	47

Belief systems seem to have an amazing capacity to survive and to retain their identity despite variation in many factors within one's social environment. A considerable amount of evidence lends support to this assertion relative to the college environment in particular. For instance, Philip E. Jacob asserts that the value changes that occur during the college years are surface rather than integral elements of the student's personality. Thus, whereas changes may occur, they are rarely drastic or sudden and are usually in reference to peripheral values. In addition, Jacob maintains that a more accurate viewpoint of the college process would be to view it as a socialization of the individual rather than as a liberalization of the individual's value system. This particular assertion rests primarily on evidence that there is more homogeneity and greater consistency of values among college seniors than among their freshman counterparts. In sum, according to Jacob, for most students the changes are slight and do not involve basic values.¹

Ralph M. Dreger's review of this phenomenon, in regard to a social psychological perspective to account for the alteration or lack of alteration of attitudes under varying social conditions, likewise stresses that some types of expressed attitudes are changed; but the inner core of the personality in which the beliefs are rooted does not change very much.

¹Philip E. Jacob, Changing Values in College. New Haven, Conn.: The Edward W. Hazen Foundation, 1956, pp. 6, 40-55.

Thus, he states that ". . . college does not make the radical changes in personality that its friends and enemies hope or fear it does."²

However, by returning to Jacob's notion of homogeneity, an important dimension which has thus far been overlooked is illuminated. That is, if the amount of change in basic values of most students is rather small and if there is also greater homogeneity of values among college seniors than among their freshman counterparts, then the amount of change in the belief systems of some students must be rather great. Indeed, Jacob states that a liberalizing of belief does occur in some students during the process of a college education. In particular, he states that "students who enter college with extremely rigid and fundamentalist beliefs appear particularly vulnerable to liberalization."³ However, to rely on the knowledge of this fact to explain a large amount of the variation of those students' belief systems which are altered would be purely fallacious in the absence of further theoretical conceptualization and additional testing of other potentially important factors. One attempt to extend the empirical and theoretical knowledge of students who do change is that of Hans H. Toch, Robert T. Anderson,

²Ralph Mason Dreger, "Just How Far Can Social Change Change Personality?" The Journal of Psychology, 64, 1966, pp. 167-191.

³Jacob, op. cit., p. 56.

James A. Clark, and James J. Mullin.⁴ Toch and his associates attempted to isolate structural attributes of religious belief systems which make some people more likely to change than most people. For instance, it is obvious that an American who has been taught that the world is flat has a high probability of changing this particular belief; whereas, it is not so obvious that some combinations of beliefs are more likely to change than others. Thus, Toch et al. focus on the process of secularization of the religious belief system of a college student in order to distinguish changers from non-changers and further inquire into the structures of the belief systems of the changers. By this means, the statement by Jacob concerning rigid and fundamental beliefs may be placed in its proper perspective. In short, the findings of Toch and his associates concerning structural characteristics of belief systems point out that inconsistencies in one's belief system is more important than whether one is liberal or conservative; that a freshman's profile which shows a general liberal orientation is further reinforced and the secularizing tendencies are accentuated through college; and that a clear-cut, consistent belief system is most conducive to non-change.

The Present Research

The purpose of the present study was to investigate the utility of certain theoretical concepts relative to changes which take place in

⁴Hans H. Toch, et al., "'Secularization' in College: An Exploratory Study," Religious Education, Nov-Dec., 1964, pp. 498-502.

religious belief systems following social environmental changes. That is, whereas many analyses have stated differences between college freshmen and seniors in terms of religious beliefs,⁵ this research was directed toward an investigation of explicit social factors predisposing or inhibiting change in an individual's religious belief system. Furthermore, the utility, as well as the convenience, were primary factors in the choice of the university as the research site. That is, not only is the university an accessible population in which empirical evidence has substantiated religious belief changes; but there is also an environmental change in several respects--associational networks of socio-economic status, community environment, heterogeneous population, and greater independence from nuclear family to mention a few. Thus, the present study's primary intent was to investigate the theoretical potential of certain concepts in the study of change of belief systems. More specifically, the analysis of their utility enables the current study to extend its investigation beyond changes per se to certain aspects of why changes in belief systems take place.

However, the study of change necessitates an empirical structure or state-condition against which a change in perspective can be measured.

⁵Perhaps the most outstanding of these are G. W. Allport, J. M. Gillespie, and J. Young, "The Religion of the Post-War College Student," The Journal of Psychology, 25 (1948), pp. 3-33; Rose K. Goldsen, et al., What College Students Think, New York: D. Van Nostrand Co., Inc., 1960; and Jacob, op. cit.

Since empirical data on individual seniors at the time they were entering college was unavailable, an alternative method was used. That is, although data on individual seniors was not available, Toch and his associates did have data on an aggregate sample of the seniors when they were freshmen. Therefore, rather than use the selective and highly unreliable "memory" of each senior, it was decided that social factors could be selected which would enable use of this aggregate sample. Therefore, the data gathered was for the purpose of analyzing aggregates rather than individuals which requires longitudinal studies. This decision, of course, imposes limitations on the nature of social factors and the type of conceptualization which can be used. Therefore, whereas this study does not investigate changes within the college environment per se nor individual student changes, it does enable comparison of freshman and senior aggregates in a manner to validate explicit social factors predisposing an individual change. Thus, although the study of specific factors within college, such as peer group-family associational networks, were precluded in the design of this study because of a lack of existing data, the present study is based on a cross-sectional representation of freshmen and seniors thus providing a means to investigate the change in religious belief systems per se. In addition, since aggregate data does exist on the seniors when they were freshmen, the affected changes resultant from the college process may be explicated.

Another element distinguishing this study from most studies of religious beliefs is that the present conceptualization focuses upon belief patterns which cross denominational lines thus enabling the researcher to classify the student by types of belief pattern rather than by denomination. Furthermore, by focusing upon belief systems rather than denominations, one avoids the gross simplification of contrasting Protestants, Catholics, and Jews. For instance, the fallacy of comparing Protestants and Roman Catholics has been demonstrated by Charles Y. Glock and Rodney Stark. More specifically, by not differentiating between Protestant groups, they argue, social scientists are using statistical fiction. Thus, they maintain it is no longer justifiable to view Protestantism as a unified religious point of view.⁶ Furthermore, Hans Toch and Robert Anderson have also introduced another important dimension relative to this issue. That is, from the perspective of belief patterns or typologies, they found no tendency for people of any given denomination to be of the same type.⁷ Thus, the conceptualization of belief systems to be used in this study cuts across denominational lines and avoids positing together two persons who have the same denominational preferences but whose belief systems are far from the same. Thirdly, by concentrating on belief systems

⁶Charles Y. Glock and Rodney Stark, Religion and Society in Tension, Chicago: Rand McNally Co., 1965, pp. 86-122.

⁷Hans Toch and Robert Anderson, "Religious Belief and Denominational Affiliation," Religious Education, May-June 1960, pp. 193-200.

rather than single beliefs, a more adequate, though incomplete, conceptualization of personality is implemented.⁸ For instance, since this conceptualization refers to belief patterns or combinations, several beliefs must be changed for a change to be recorded. Thus, this conceptualization should help prevent the error of interpreting peripheral belief changes as major changes of perspective.

One important aspect of this study is the subject matter on which it is based. In short, because religious belief systems are the focus of the investigation does not imply that generalizations may be made about the nature of religion per se. A point well taken by Glock and Stark's conceptualization of religion is that religion is a multidimensional phenomenon of which the ideological aspect is only one dimension.⁹ Thus, the generalizations from this study will refer only to the ideological dimension of religion: in short, belief systems. Furthermore, since the emphasis is upon belief systems per se rather than religiousness, the findings should also have implications for other types of belief system change as well as for personality theory.

One additional conceptual problem which needs clarification is in relation to the reciprocity of the definitions of religion and secularization.

⁸See Milton Rokeach, The Open and Closed Mind, New York: Basic Books, Inc., 1960, pp. 18-19.

⁹Glock and Stark, op. cit., pp. 18-38.

That is, one's definition of religion also has implications for the conceptualization of secularization. For instance, functionalists such as Thomas Luckmann and J. Milton Yinger view current changes in religion as the emergence of new social forms of religion.¹⁰ Furthermore, Luckmann, in particular, criticizes the assumptions of an identification of church and religion and of a correspondence between an individual's religious "needs" and the "official" objectivated social form of religion. Thus, whereas Luckmann would tend to view church-oriented religion as an institutionally specialized social form of religion, he would also assert that, since an individual's religion corresponds to his hierarchially arranged sphere of "ultimate" significance, there exists a potential disjuncture between the "official" model of religion and one's actual religion. Thus, he postulates an emerging social form of religion and defines secularization in terms of decreasing functions of religion in the individual's total life sphere or, more specifically, the limitation of religion to the private sphere.¹¹

Other sociologists, however, such as Glock and Stark and Bryan R. Wilson, take a different approach toward defining religion and, therefore, also define secularization somewhat differently.¹² For

¹⁰See Thomas Luckmann, The Invisible Religion, New York: The Macmillan Co., 1967 and J. Milton Yinger, Sociology Looks at Religion, New York: The Macmillan Co., 1961, esp. pp. 65-74.

¹¹Thomas Luckmann, op. cit.

¹²See Glock and Stark, op. cit., pp. 1-38, 86-122; and Bryan R. Wilson, Religion in Secular Society, London, C. A. Watts & Co., Ltd., 1966.

instance, whereas Glock and Stark recognize the functional equivalence of all value orientations which provide men with solutions to their questions of ultimate meaning, they nevertheless distinguish between kinds of value orientations. Thus, they define all value orientations that base solutions to problems of ultimate meaning in some manner upon a supernatural being, world, or force as religious perspectives. On the other hand, those value orientations which do not affirm a supernatural but limit their solutions to problems of ultimate meaning to the material world, they define as humanist perspectives. Thus, their conceptualization distinguishes the secular or irreligious world views from religious ones. In this manner, although both types of value orientations are merely alternatives to the same basic phenomenon, secularization is conceived as a decrease in beliefs of a "religious" nature. Thus, secularization of American religion is defined by Glock and Stark as a replacement of mystical, supernatural elements of traditional Christianity by demythologized, ethical ones.¹³

¹³Glock and Stark, op. cit., pp. 1-17, 116-117; For a fuller discussion of the current religion-secularization dialogue in the sociology of religion the following additional references are perhaps most significant: Peter L. Berger, "A Sociological View of the Secularization of Theology," Journal for the Scientific Study of Religion, 5, Fall 1966, pp. 3-16 and The Sacred Canopy, New York: Doubleday & Co., Inc., 1967; Robert Bellah, "Religious Evolution," American Sociological Review, 29 (June 1964), pp. 358-374; Talcott Parsons, The Social System, New York: The Free Press, 1951, pp. 163-164, 367-379 and "Sociology and Social Psychology," in Religious Perspectives in College Teaching, Hoxie N. Fairchild (ed.), New York: The Ronald Press Co., 1952, esp. pp. 335-337; and Larry Shiner, "The Concept of Secularization in Empirical Research," The Journal for the Scientific Study of Religion, Fall 1967, pp. 207-220.

Wang, Z. and J. Wang (2017)

Estimation of the parameters of the generalized gamma distribution with applications. *Journal of Statistical Theory and Applications* 16(1): 5-15.

The above discussion of the religion-secularization dialogue is relevant to the present conceptualization in the sense that the purpose of this study was not to investigate emerging social forms of religion but rather factors which predispose a student's religious belief system to change. Furthermore, since the purpose of the study was to inquire into the nature of change rather than the content of the belief system, the interest was directed toward a distinguishable ideological comparison point. In short, since the focus of this study was more on the change of belief systems than religion per se, this study was directed toward a belief continuum from which a comparison of freshmen and seniors could be made. Thus, on this basis, religion is defined in the Glock and Stark sense. That is, "religion," in this study, refers to those belief systems involving a supernatural being, world, or force which provides the basis for solutions to problems of ultimate meaning. Therefore, although from a functional point of view, this definition is biased toward a historical or traditional religion, it nevertheless serves the purpose of the current study--to view belief systems on a continuum from highly "religious" to secular. In sum, although the conceptualization to be used in this study is historically oriented, it nevertheless enables the researcher to differentiate between types of belief systems and thus analyze changes which may occur in those belief systems.

To briefly recapitulate, the purpose of the present research is to study one dimension (the ideological) of a multidimensional phenomenon

in order to investigate the nature of its change as a result of changes in social environment. Substantively, the study investigates social structural variables which may predispose some college student's religious belief systems to change more than those of most students.

RESEARCH DESIGN

Hypotheses

The first research question to be investigated concerns the amount and nature of change in religious belief systems between the freshman and senior years. That is, I propose to contrast the types of belief systems of graduating seniors with those of entering freshmen. Furthermore, in order to eliminate the effect of secularization which is occurring in society in general, I will first measure the difference between the belief patterns of entering freshmen in 1967 and those of seniors when they were freshmen in 1963. Finally, the amount of actual change during college will then be measured by the difference between the remaining freshman sample's belief patterns and those of the seniors. Thus, the first major hypothesis to be tested is the following:

H₀: There is no difference between the entering freshman and the graduating senior's belief patterns as measured by the mean number of items agreed upon within the four categories comprising a belief system.

The second research question to be investigated concerns certain social structural variables which may potentially predispose a student's religious belief system to change. Thus, whereas change of perspective

is still of paramount interest, the focus will be upon why and how change is induced. That is, even though dynamics within the college process are not studied, structural factors predisposing change are examined in order to further extend the causes of why change takes place in some students' belief systems. Thus, it is specifically directed toward further explication of why some students' perspectives change more than those of most students. The particular social factors which were selected as variables are socio-economic status, characteristics of home community, and homogeneity-heterogeneity of "significant others." More specifically, the major hypothesis, which will subsequently be broken down into sub-hypotheses, is as follows:

H₀: There is no difference between the entering freshman and the graduating senior in the type of belief patterns as measured by the number of items agreed or disagreed upon within the four categories comprising a belief system, given that the following variables in his social environment are controlled:

1. Socio-economic status of his family
2. Characteristics of his home community
3. His "significant other" relationships

To be more meaningful this hypothesis will be broken down into three sub-hypotheses. Also a brief theoretical rationale for the inclusion of each particular complex of social variables will precede each sub-hypothesis. The first set of social factors to be selected was that of socio-economic status. The import of this complex of variables has long been recognized in respect to different perspectives

for interpreting the world. The fact that different socio-economic status connotes different life-styles, different world views, different associational networks, and different religious "needs" has been substantially supported by research.¹⁴ However, while it is generally believed that orthodox beliefs and emotional religiousness are primarily adhered to by the backward, lower-classes, Glock and Stark point out that recent research has shown that religious belief systems, whether fundamental or liberal, are largely a middle- and upper-class phenomenon. Furthermore, they point out that the most recent research examining this question, which states that the lower-classes are more prone to religious beliefs, was based solely on respondents who were church members. Therefore, Glock and Stark argue, whereas the lower-classes when viewed as a whole are the least likely to believe in a traditional theology, those lower-class persons who are involved in religion are even more inclined than middle- and upper-class persons to hold fundamentalist religious outlooks.¹⁵ Thus, since there is not only a differential rate of involvement between classes, but also a divergence within at least the lower

¹⁴A few of those most directly substantiating the relationship between socio-economic status and types of religious involvement are Max Weber, The Protestant Ethic and the Spirit of Capitalism, New York: Charles Scribner's Sons, 1958, esp. pp. 72-78; N. J. Demerath, III, Social Class in American Protestantism, Chicago: Rand McNally & Co., 1965; Richard Niebuhr, Social Sources of Denominationalism, New York: The World Publishing Co., 1964, esp. pp. 26-33, 80-89; J. Milton Yinger, op. cit., pp. 23-63; and Goldsen, op. cit., pp. 177-178.

¹⁵Glock and Stark, op. cit., Chapters 10 and 11.

class in terms of whether one is involved at all or not, the present study does not postulate that one socio-economic level will be more effective than another in predisposing change. That is, since change in one dimension (the ritualistic) may also greatly affect another dimension (the ideological), at least in the lower-classes, and since the current study's focus is change per se, this matter of differential effect upon change in religious belief systems will itself be postulated as an empirical question. Thus, the focus will be upon differential rates of involvement within socio-economic status at both the freshman and senior levels. In sum, by holding each dimension of socio-economic status constant for both freshman and senior students, each dimension's effect on change can be measured. The specific sub-hypothesis, then, is:

H₀: There is no difference between the entering freshman and the graduating senior in the number of items agreed or disagreed upon within the four categories comprising a belief system, given that both groups of persons have the same socio-economic background prior to college as measured by parents' occupation(s), education, and income.

The second complex of social variables selected involved three characteristics of one's home community--the size and type of community and the size of the student's graduating high school class. Perhaps the import of an individual's home community relative to religious perspective is best stated by Richard A. Peterson and

N. J. Demerath and Gerhard Lenski.¹⁶ In both cases the most significant aspect asserted to differentiate rural and urban life in terms of religious perspective was the amount of structural differentiation. More specifically, urban conditions bring people of diverse social backgrounds into association with one another and necessitated cooperation produces norms of tolerance and religious neutralism in some aspects of life. Secondly, in a quite differentiated environment, an individual's world views tend to become specialized and compartmentalized. Thus, world views have an increasing tendency to become discrete parts rather than a unified whole with each part being relatively self-autonomous. In short, not only is the sphere of religious autonomy decreased but its import is also subject to increased questioning. The type of community, as well as its size, was included in order to further differentiate between certain communities. For example, this allows the researcher to distinguish between two communities of equal size, one of which is a suburb of a large city and the other situated in a rural farming area. Finally, inclusion of the size of one's graduating high school class was based upon evidence pointing to the quality of an individual's secondary school as well as the location and size of his home community as a crucial variable for adjustment during college.¹⁷ Thus, even though the

¹⁶Richard A. Peterson and N. J. Demerath, III, "Introduction" in Millhands and Preachers by Liston Pope, New Haven, Conn.: Yale University Press, 1942; Gerhard Lenski, The Religious Factor, Garden City, New York: Doubleday and Co., Inc., 1961, esp. pp. 8-12.

¹⁷John Summerskill, "Dropouts From College," in College and Character, Nevitt Sanford (ed), New York: John Wiley & Sons, Inc., 1964, pp. 188-192.

effect upon some individuals may be attrition, the question in this case is the effect in terms of religious belief system for those students who succeed. In addition, a larger high school class, it would seem, would have a similar effect as that of urbanization in terms of bringing together people from diverse social backgrounds. Thus, the specific sub-hypothesis is:

H₀: There is no difference between the entering freshman and the graduating senior in the number of items agreed or disagreed upon within the four categories comprising a belief system, given that both groups of persons were previously related to the same size and type of community and the same size of graduating high school class.

The final complex of social variables chosen was that of an individual's "significant others." "Significant others" are defined for purposes of this study as those individuals whom the respondent perceived as having influenced him (whether positively or negatively) in terms of formulating his philosophical and religious views. Although these persons serve as reference points for the individual, they are not, sociologically speaking, a reference group and, therefore, the term "significant other" was chosen.¹⁸ Furthermore, research on the influence of others in relation to an individual's behavior has been

¹⁸See Carl J. Couch and John S. Murray, "Significant Others and Evaluation," Sociometry, 27 (1964), pp. 502-509; for a more complete treatment of the "significant other" concept in an empirical context, see William F. Rushby, "Location in the Social Structure, Significant Others, and Level of Educational and Occupational Aspirations: An Exploratory Study." Unpublished M. A. thesis, Michigan State University, 1966.

conducted in a wide variety of social contexts and suggests that this approach has relevance for understanding many aspects of cognitive behavior. To be more specific, an individual's religious belief system is formed within the context of, and sustained and/or modified by, the individual's daily interaction with others. Thus, other individuals may be perceived as communication linkages between belief systems. Furthermore, since there is evidence supporting the notion that heterogeneity of religious affiliation is influential both in terms of belief change and effective peer-group influence,¹⁹ the present sub-hypothesis investigates the relation of homogeneity-heterogeneity of "significant other" religious preferences to change in religious belief systems.

The hypothesis, then, is:

H₀: There is no difference between the entering freshman and the graduating senior in the number of items agreed or disagreed upon within the four categories comprising a belief system, given that both groups of persons' "significant others" have the same degree of homogeneity of religious preference.

Operational Definition of Belief System

The four categories of the belief inventory are comprised of a liberal dimension and a conservative dimension. The belief items

¹⁹See T. M. Newcomb, "Student Peer-Group Influence," in College and Character, Nevitt Sanford (ed), New York: John Wiley & Sons, Inc., 1964; Isabelle Payne, "The Relationship Between Attitudes and Values and Selected Background Characteristics." Unpublished Ed.D. dissertation, Michigan State University, 1961, p. 75.

were originally chosen in order to classify manifestations of religious conservatism (30 items) and religious liberalism (30 items).^{*} The two conservative categories are referred to as "Orthodoxy" and "Fundamentalism.": The two liberal categories are called "Liberalism" and "Secularism."

An individual profile for each subject was constructed on the basis of the items he agreed with or disagreed with. The instructions on the second part of the instrument read, "Please read the statements carefully. Whenever you find one with which you AGREE, please check the space under 'AGREE'. Whenever you see one with which you DISAGREE, please check the space under 'DISAGREE'. If you neither agree nor disagree with a statement, please leave both spaces blank, but make sure you catch all the statements about which you feel one way or the other." The categories were determined as follows:

CATEGORY SCORING

<u>Conservative Dimension</u>		<u>Liberal Dimension</u>	
ORTHODOX	FUNDAMENTAL	LIBERAL	SECULAR
#5 agree**	1 agree	7 agree	2 disagree
13 disagree	8 agree	10 agree	3 agree
14 disagree	9 agree	12 agree	4 agree
15 disagree	11 agree	16 agree	6 agree
17 agree	24 disagree	18 agree	19 agree
27 agree	30 agree	20 disagree	22 agree
36 agree	32 agree	21 agree	23 agree
37 agree	38 agree	25 agree	26 agree
42 agree	39 agree	28 agree	29 agree
44 disagree	41 agree	33 agree	31 agree

^{*}The actual items are included in Appendix. See the instrument used.

^{**}Number in each case refers to the number of the item in the questionnaire.

Category Scoring continued:

ORTHODOX	FUNDAMENTAL	LIBERAL	SECULAR
45 agree	49 agree	47 agree	34 agree
46 agree	50 agree	58 agree	35 agree
48 agree	52 agree		40 agree
55 agree	53 agree		43 agree
	54 agree		51 disagree
	56 disagree		57 agree
			59 agree
			60 agree



The items of the belief statements left blank were not computed in an individual's belief profile.

It is reasoned that if this breakdown of the items is valid, there should be positive correlation between the two conservative categories and also between the two liberal categories, while there should be a negative correlation between either conservative category and the liberal categories or between either liberal category and the conservative categories. Table 1 gives us the correlation of items chosen by both the senior and freshman samples. The similarity of the correlation for both samples indicates the reliability of the inventory. Also, the positive correlations in the conservative and in the liberal dimensions, together with the negative correlations between liberal and conservative items, indicates the validity of the classifications.

Each individual respondent was classified as consistent in his beliefs, if he scored high in any one of the four categories and low in the other

TABLE 1

Correlation of Belief Inventory Items for
Senior and Freshman Samples, 1967*

Seniors (N=294)					Freshmen (N=611)				
	1	2	3	4		1	2	3	4
1	1.00				1	1.00			
2	0.51	1.00			2	0.50	1.00		
3	-0.17	-0.27	1.00		3	-0.18	-0.14	1.00	
4	-0.19	-0.45	0.37	1.00	4	-0.35	-0.30	0.50	1.00

NOTE: 1=orthodox items
2=fundamental items
3=liberal items
4=secular items

*Used Product-Moment Correlation

or if he scored high in either the conservative or liberal dimension and low in the other. An individual was classified as inconsistent in his beliefs or that he possessed a diffuse belief pattern if he held comparable scores over the four categories or two high scores in opposing dimensions. For tables of contingency, analysis computations were made on the basis of 50% consistency in any one of the categories and also on the basis of 67% consistency in any one category. If this criterion was not met in each case, the individual was catalogued as "mixed" or "inconsistent" in his beliefs.

Construction of Indices

The Socio-Economic Status (SES) of an individual is classified as low, medium and high based on the father's reported education, type occupation, and family annual income. Since less than 10% reported no information on the fathers and since few reported working mothers, for consistency of data, only the fathers information was considered relevant for the first two items. The index of SES was established as follows:

Education less than high school was given a value of 1; high school graduate and some college was given a value of 2; college degree and advanced studies was given a value of 3. White collar workers including professionals, proprietors, managers, officials, clerical and sales workers were given a value of 2 while blue collar workers including craftsman, farmer, service workers, operators, laborers and domestics were given a value of 1.²⁰ Income, was arbitrarily divided

²⁰The primary sources used for occupational classification was Charles H. Backstrom and Gerald D. Hursh, Survey Research, Northwestern University Press, 1963; Joseph A. Kahl, The American Class Structure, New York: Holt, Rinehart & Winston, 1953.

between incomes under \$10,000 which was valued as 1 and incomes over \$10,001 which was given a value of 2. This provided each respondent with a range of scores possible from 3 to 7. Those scoring 3 or 4 were classified as Low SES; those scoring 5 were classified as Medium SES; while those scoring 6 or 7 were classified as High SES.

The inter-relationship of the three variables is seen in Tables 2a, 2b, and 2c.

An index of three community types (rural, transitional, and urban) was constructed by correlating information about size of community, type of community, and size of the high school graduating class. The size of the church or synagogue was not included since a fairly large number of respondents indicated no church affiliation. The index was comprised by allotting the following values:

Item	Value
community size under 2,500	1
2,500-10,000	2
10,000-50,000	3
50,000-100,000	4
100,000-over	5
size of graduating class	
under 100	1
100-250	2
250-500	3
500-1,000	4
1,000-over	5
type of community - agricultural	1
agricultural-industrial	2
residential	3
educational	4
industrial	5

TABLE 2a. Percentage Type Occupation controlled by Education and Income - Freshman Sample, 1967

	Education With Income < \$10,000			Education With Income > \$10,000			TOTALS
	0-11 yr.	12-15yr	college degree+	0-11 yr.	12-15yr	college degree+	
LBC (59)	55%	31%	2%	8%	5%	0%	101%
UBC (135)	17%	42%	1%	10%	28%	2%	100%
LWC (78)	8%	28%	11%	5%	35%	13%	100%
UWC (265)	2%	10%	9%	3%	34%	42%	100%

Total N=537

LBC=Lower Blue Collar; UBC=Upper Blue Collar; LWC=Lower White Collar; UWC=Upper White Collar. Number within each occupational category is in parentheses. Percentage totaling more than 100% due to rounding error.

TABLE 2b. Comparison of Education with Annual Income Senior Sample, 1967

INCOME	EDUCATION		
	0-11 yr.	12-15 yr.	college degree+
< \$10,000	69%	31%	19%
> \$10,000	31%	69%	81%
	100% N=58	100% N=117	100% N=106

Total N=281

TABLE 2c. Comparison of Education with Annual Income Freshman Sample, 1967

INCOME	EDUCATION		
	0-11 yr.	12-15 yr.	college degree+
< \$10,000	69%	44%	22%
> \$10,000	31%	56%	78%
	100% N=98	100% N=280	100% N=159

Total N=537

Table 1. *Mean values of the following variables for the 1991-1992 season*
Mean values of the following variables for the 1991-1992 season

Variable	1991-1992 season		1992-1993 season	
	Mean	Standard deviation	Mean	Standard deviation
1. Age	34.5	10.2	35.1	10.5
2. Sex	Male	100	Male	100
3. Height	1.75	0.08	1.76	0.09
4. Weight	75.2	12.5	76.8	13.1
5. BMI	24.5	3.2	24.8	3.5

Table 2. *Mean values of the following variables for the 1991-1992 season*
Mean values of the following variables for the 1991-1992 season

Variable	1991-1992 season		1992-1993 season	
	Mean	Standard deviation	Mean	Standard deviation
1. Age	34.5	10.2	35.1	10.5
2. Sex	Male	100	Male	100
3. Height	1.75	0.08	1.76	0.09
4. Weight	75.2	12.5	76.8	13.1
5. BMI	24.5	3.2	24.8	3.5

Table 3. *Mean values of the following variables for the 1991-1992 season*
Mean values of the following variables for the 1991-1992 season

Variable	1991-1992 season		1992-1993 season	
	Mean	Standard deviation	Mean	Standard deviation
1. Age	34.5	10.2	35.1	10.5
2. Sex	Male	100	Male	100
3. Height	1.75	0.08	1.76	0.09
4. Weight	75.2	12.5	76.8	13.1
5. BMI	24.5	3.2	24.8	3.5

Table 4. *Mean values of the following variables for the 1991-1992 season*
Mean values of the following variables for the 1991-1992 season

Variable	1991-1992 season		1992-1993 season	
	Mean	Standard deviation	Mean	Standard deviation
1. Age	34.5	10.2	35.1	10.5
2. Sex	Male	100	Male	100
3. Height	1.75	0.08	1.76	0.09
4. Weight	75.2	12.5	76.8	13.1
5. BMI	24.5	3.2	24.8	3.5

Table 5. *Mean values of the following variables for the 1991-1992 season*
Mean values of the following variables for the 1991-1992 season

Variable	1991-1992 season		1992-1993 season	
	Mean	Standard deviation	Mean	Standard deviation
1. Age	34.5	10.2	35.1	10.5
2. Sex	Male	100	Male	100
3. Height	1.75	0.08	1.76	0.09
4. Weight	75.2	12.5	76.8	13.1
5. BMI	24.5	3.2	24.8	3.5

A preliminary examination of the data revealed that, because of similarity of patterns, residential-industrial, educational-industrial, and industrial-other could be all classified "Industrial;" agricultural-residential could justifiably be combined with "Agricultural;" suburban-residential and residential-other could be classified with "Residential;" and educational-residential could be included within "Educational. " The total possible sums of the three major variables gave a range of 3-15. This range was then sub-divided to provide the following types of community:

rural - scores of 3, 4, 5, or 6
transitional - scores of 7, 8, or 9
urban - scores of 10 and above

A review of the inter-relatedness of these three variables is seen in Tables 3a-f.

"Significant Others" (SO) are defined in this study as those persons whom the respondent perceives as having helped him formulate his philosophical and religious views. The questionnaire asked the respondents to identify the SO by relationship to him, to designate their religious affiliation (if known), and to indicate whether the SO had a positive (i. e., strengthening in the sense of supporting his personal views) or negative (i. e., strengthening in the sense of opposing and hence causing him to defend his views) influence on his personal beliefs. The question also asked, "How strongly does he or she agree with your religious beliefs: Very strongly, Strongly, or Not too strongly?" This was intended to help delineate the homogeneity or heterogeneity of the belief

TABLE 3c. Type Community and Size High School Graduating Class
Freshman Sample, 1967*

Type Community	Size High School				
	under 100	100 250	250 500	500 1000	over 1000
Agricultural	45	32	2 ⁽⁴⁾	3 ⁽³⁾	1 ⁽¹⁾
Agricultural-Industrial	8 ⁽⁷⁾	5	3 ⁽⁵⁾	1 ⁽¹⁾	0 ⁽⁰⁾
Residential	29	41	58	66	95
Educational	6 ⁽⁵⁾	3 ⁽⁵⁾	4 ⁽⁷⁾	3 ⁽⁴⁾	1 ⁽¹⁾
Industrial	12	19	33	27	3 ⁽²⁾
	100 N=84	100 N=176	100 N=183	100 N=124	100 N=76
					Total N=643

*Percentages are based only on those students expressing beliefs on the items.
N is included in parentheses when it is below 10.

TABLE 3d. Type Community and Size of High School Graduating Class
Senior Sample, 1967*

Type Community	Size High School				
	under 100	100 250	250 500	500 1000	over 1000
Agricultural	60	16	2 ⁽²⁾	5 ⁽²⁾	0 ⁽⁰⁾
Agricultural-Industrial	3 ⁽²⁾	11 ⁽⁷⁾	3 ⁽³⁾	0 ⁽⁰⁾	0 ⁽⁰⁾
Residential	17	40	51	50	100 ⁽¹⁾
Educational	3 ⁽²⁾	5 ⁽³⁾	9 ⁽⁸⁾	7 ⁽³⁾	0 ⁽⁰⁾
Industrial	17	28	35	38	0 ⁽⁰⁾
	100 N=59	100 N=63	100 N=92	100 N=44	100 N=1
					Total N=259

*Percentages are based only on those students expressing beliefs on the items.
N is included in parentheses when it is below 10.

Table 3e. Size of Community and Size of High School Graduating Class
Freshman Sample, 1967*

Size Community	Size High School				
	under 100	100 250	250 500	500 1000	over 1000
under 2,500	46	18	1 ⁽¹⁾	5 ⁽⁶⁾	8 ⁽¹⁾
2,500-10,000	22	41	19	5 ⁽⁶⁾	0 ⁽⁰⁾
10,000-50,000	20	18	45	25	33 ⁽⁴⁾
50,000-100,000	7 ⁽⁶⁾	8	14	26	17 ⁽²⁾
100,000 and over	5 ⁽⁵⁾	13	19	36	42 ⁽⁵⁾
	100 N=91	98 N=189	98 N=183	97 N=122	100 N=12
					Total N=597

*Percentages are based only on those students expressing beliefs on the items.
N is included in parentheses when it is below 10.

TABLE 3f. Size of Community and Size of High School Graduating Class
Senior Sample, 1967*

Size Community	Size High School				
	under 100	100 250	250 500	500 1000	over 1000
under 2,500	45	4 ⁽³⁾	3 ⁽³⁾	2 ⁽¹⁾	0 ⁽⁰⁾
2,500-10,000	36	37	13	4 ⁽²⁾	0 ⁽⁰⁾
10,000-50,000	6 ⁽⁴⁾	25	39	18 ⁽⁸⁾	33 ⁽¹⁾
50,000-100,000	4 ⁽³⁾	17	13	29	0 ⁽⁰⁾
100,000 and over	8 ⁽⁶⁾	17	32	47	67 ⁽²⁾
	99 N=73	100 N=72	100 N=100	100 N=45	100 N=3
					Total N=292

*Percentages are based only on those students expressing beliefs on the items.
N is included in parentheses when it is below 10.

systems of the respondent's SO, but because of apparent misinterpretation of the question and questionable value, the question was not considered in the construction of the Significant Other Index.

"Religious homogeneity" is defined as the degree to which a SO is supportive of the respondent's belief patterns. It is considered in this study in two aspects of comparison between the respondent and his SO: religious preference of the SO--whether it is the identical to or different from the respondent's own and positive or negative influence upon the respondent. It is reasoned that a SO of the same religious preference and positive in influence or a SO of different preference but negative in influence would both produce the same effect upon the respondent and, therefore, contribute to homogeneity of SO relationship to the respondent. Conversely, a SO of the same religious preference but negative in influence, or one of different preference but positive in influence would essentially produce the same effect and produce a situation of heterogeneity of belief context. This should make the respondent more susceptible to change of beliefs.

The SO Religious Homogeneity Index was constructed in the following way. First, the religious preference of the SO was classed as either identical to the respondent's--Protestant different (if respondent was Protestant), or Protestant-Catholic-Jewish-Agnostic different. Those SO whose religious preference was not known were discounted. Finally, the SO were classed as either homogeneous (supportive of

the respondent's belief system), heterogeneous (producing a situation conducive to change of professed beliefs), or mixed (when two or more SO were listed and no clear homogeneous or heterogeneous situation could be determined). The criterion for classification was 60% or greater for homogeneous-heterogeneous and less than 60% for mixed.

Research Population and Sample

Two samples were employed in this study. The first was comprised of 400 Michigan State Seniors drawn from a total population of 6,548 seniors registered during spring term 1967. The Michigan State University Data Processing Center selected the simple random sample on the basis of student numbers. To each of these seniors a covering letter and a two part self-administered questionnaire was mailed enclosing a stamped, self-addressed return envelope. Three days following the initial mailing, a personal telephone call was made to each subject possessing phones urging cooperation. Two weeks later, a second letter, questionnaire, and return envelope was mailed to the homes of those who had not responded.

The initial effort produced 252 replies (63%) and an additional 49 completed instruments (12.25%) were returned following the second mailing. The 301 returned questionnaires representing 75.25% of the initial sample contained 59% male respondents as compared with a total University male population of 56% (the division by sex of the senior class alone was not available.). The slight difference between the

sample and the population was not considered sufficient to have influenced the results obtained. In addition, when it is noted that the attrition rate of females throughout the college experience tends to increase the male to female ration, this could account for the 3% differential.*

Of the 99 non-respondents, 6 were returned to the researchers by the Post Office as undeliverable because addressee was "unknown," "moved, left no address," or "not at address given." The sex breakdown of the 99 showed 56 males and 43 females which is comparable to the total university division.

A comparison of the 49 late respondents to the total senior sample showed both within a standard deviation range between 2.4 and 4.3 and the following comparison of mean scores in the four categories of belief patterns:

	Total sample	Late respondents	Difference
Orthodoxy	3.0531	2.7755	-.2776
Fundamentalism	2.7755	2.5306	-.2449
Liberalism	6.2531	6.3265	+.0734
Secularism	4.9592	4.8163	-.1429

This indicates that the late respondents were very slightly less conservative than the total sample with the greatest difference in Orthodoxy and least difference in Liberalism. Therefore, it is assumed that the non-respondents resemble the late respondents, the belief inventory scores will show a slight conservative bias.

*Of the 301 returned instruments, 7 were unusable. One was obviously spurious and the other six were incomplete in information, particularly in the second part.

A second sample of fall term 1967 entering freshmen was secured during the summer orientation sessions. No pre-determined design was employed in allotting assignments for orientation. Each student selected the time of orientation according to his own convenience and desire. The researchers were permitted by the Freshmen Orientation Director to select two such sessions for the application of their instrument. A total sample of 605 freshmen were thereby secured. Although the procedure employed does not provide a simple random sample, it is probably as close as one can come without the use of a pre-established random sampling procedure. It was believed that the method used would provide an adequate cross-sectional representation of the freshmen class. Forty-five percent of this sample were males. The discrepancy may be reasoned as resulting from the probability that more males than females would have summer work commitments. The discrepancy means simply that the sample is slightly biased toward females.

Instrument Adaptation

A two-part self-administered questionnaire was employed. The senior questionnaire contained additional questions pertaining to the college experience but aside from this was identical to the freshmen questionnaire.

Part I consisted of social demographic factors prior to the college experience. It was designed to provide information about: 1) the

socio-economic status of the respondent's family, 2) community factors which provide an environmental context for the respondent's pre-college development, and 3) significant others whom the respondent perceived as contributing to his world views.

Part II of the questionnaire was a sixty-item adaptation of a belief inventory designed by Hans Toch and Robert Anderson of Michigan State University. The adapted form contained only those items upon which unanimity of opinion had been expressed by theologians and clergymen consulted by Toch and Anderson in the formation of their instrument,²¹ and the exact items used by them in the determination of the four categories of orthodoxy, fundamentalism, religious liberalism, and secularism. Table 4 compares the standard deviation of means in the four categories of the two samples of this study with the standard deviations obtained by Toch and Anderson in studies of 1960, 1961, and 1963. It indicates that the standard deviations of this study deviations of this study fall within the limits of the previous studies.

²¹For a complete description of the construction of the Toch-Anderson Belief Inventory, see H. Toch and R. Anderson, "Religious Belief and Denominational Affiliation," Religious Education, May-June, 1960, pp. 193-34; and Hans Toch, et al., "Secularization in College: An Exploratory Study," Religious Education, Nov.-Dec., 1964, p. 491.

TABLE 4. Standard Deviations of Means in Four Categories of Freshman and Senior Samples (1967) Compared with Toch-Anderson Studies of 1960, 1961, 1963.

BELIEF CATEGORY	POPULATION SAMPLES					
	Seniors 1967 N=294	Freshmen 1967 N=611	Freshmen 1963 N=153	Freshmen 1961 N=304	Freshmen 1960 N=412	Seniors 1960 N=42
Orthodox (N=14)*	3.4	3.7	3.7	4.0	3.9	4.2
Fundamenta list (N=16)	3.0	3.2	3.8	3.4	3.3	2.9
Liberal (N=12)	2.5	2.5	2.4	2.3	2.4	2.4
Secular (N=18)	4.3	3.0	2.9	3.2	2.3	2.7

*This N refers to the number of items within each category. See pages 18-19.

TABLE 1. Quantified Boundaries of V_{eff} and $V_{\text{eff}}^{\text{L}}$ for the LHC and the FCC-EE, assuming $\alpha_s = 0.118$ and $\alpha_{\text{em}} = 1/137.036$. (For $V_{\text{eff}}^{\text{L}}$ the boundary is independent of the renormalization scale μ .)

RESULTS AND DISCUSSION

Profile of Belief System Change

The first hypothesis to be tested states that there is no difference between the entering freshman and the graduating senior's belief patterns when measured by the mean number of items agreed or disagreed upon within the four categories comprising a belief system. Table 5 lists not only the samples in which we are directly interested for testing this hypothesis but also Toch-Anderson samples of previous years. Thus, this table permits a quick comparison of studies of subsequent years as well as the mean scores of the 1963 and 1967 freshman samples and the senior sample of 1967. For a comparison of the samples to be used only for testing this hypothesis see Figure 1.

The first comparison to be made concerns the total amount of change within the same class between the years 1963 and 1967 (i.e., freshman 1963, seniors 1967). From Table 5, one can see that there is a decrease of 2.3 and 2.7 items agreed (or disagreed) upon in the orthodox and fundamental categories and a net gain of .9 and 1.7 in the liberal and secular categories. These scores provide us with a measure of the total amount of change in four years inclusive of both college and societal influences. However, by subtracting the difference between the freshman samples from the gross amount of change, a large amount of the change resultant from secularization at the societal level is eliminated. Thus, we can conclude that the amount of change

Mean Number of Items Agreed Within Four Categories of Freshman and Senior Samples (1967) Compared With Toch-Anderson Studies of 1960, 1961, 1963

-35-

NOTHING TO REPORT

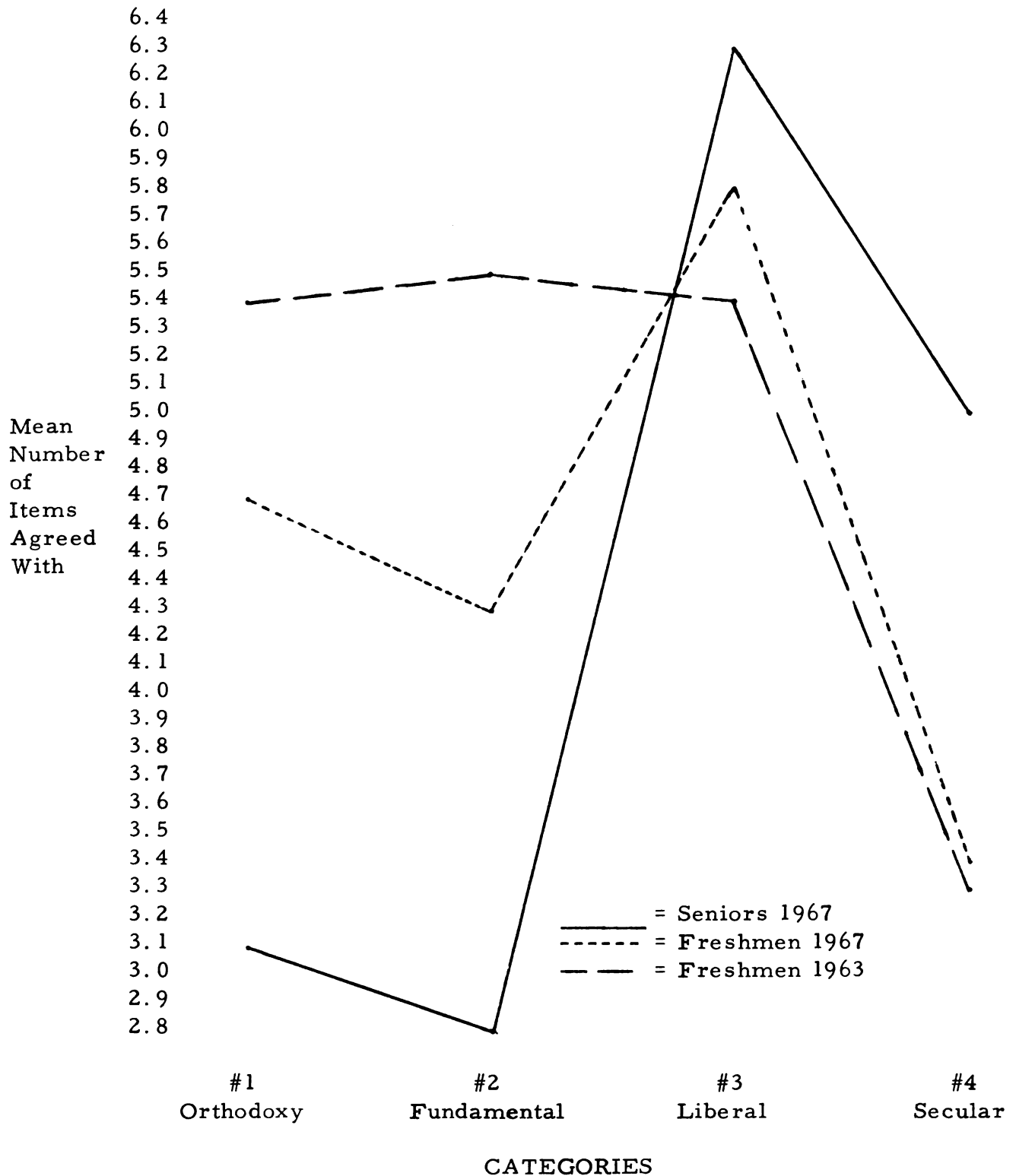
THE UNIVERSITY OF CHICAGO

100

1. The first group of people who are affected by the disease are those who are in the early stages of the disease. This group is the most vulnerable and is the most likely to die. They are the people who are in the early stages of the disease and are the most likely to die.

FIGURE 1

Mean Number of Items Agreed Within Four Categories of
Freshmen and Senior Samples (1967)
Compared With Toch-Anderson Studies of Freshmen (1963)



resultant from the college environment in the conservative categories was -1.6 and -1.5 respectively and for the liberal categories +.5 and +1.6 respectively. In sum, the conservative dimension loses 3.1 mean items chosen whereas the liberal dimension gains 2.1. The significance of these changes can perhaps best be understood when viewed from a percentage point of view. That is, there is a 34% decrease in the conservative dimension and a 23% increase in the liberal dimension. Thus, it is quite evident that the null hypothesis related to the difference between freshman and senior samples in the mean number of items agreed upon is clearly false. In short, there is a difference between these two aggregate samples, and the difference or amount of change is rather large.

Obviously, the amount of change demonstrated is not zero-sum quantity where a decrease in one dimension results in an increase in the other and vice versa. In other words, because an individual no longer believes an orthodox belief does not mean that it has been replaced by a liberal or secular one. Rather, it may not have been replaced at all, or it may merely have become at least temporarily unimportant. In this respect, G. W. Allport suggests that the task of integrating the values of religion with current needs of daily life is one which few youths seem able to accomplish. Thus, at this particular age, religion becomes somewhat secondary; and it is not necessary, Allport maintains, to replace discarded or displaced beliefs with new operative ones. Finally, he suggests this integrative process will

more likely be accomplished later in the maturation process as marriage and children take their toll.²²

However, for our purposes, the import of the findings is that there is a significant decrease in the conservative dimension and a considerable increase in the liberal dimension, despite controlling for the process of secularization at the societal level. Furthermore, in relation to the nature of change, the orthodox and fundamental categories both decrease significantly, whereas, in the liberal dimension, both categories increase but the secular category increases much more than its liberal counterpart. (See Figure 1.) In short, although we will no longer be able to control for societal secularization, it has been clearly demonstrated that the college environment per se is conducive to change in religious belief systems. Therefore, we may extend our investigation to social structural variables within which there may be differential rates of affect upon change in belief systems.

Socio-Economic Status and Belief System Change

The second hypothesis to be tested asserts that there is no difference between belief systems of the entering freshman and graduating senior

²²G. W. Allport, The Individual and His Religion, New York: The Macmillan Company, 1950.

when socio-economic background prior to college is held constant.*

The findings in Tables 6a and 6b make it quite apparent that differential location in socio-economic status predisposes differential change in religious belief system. This assertion may be seen from two points of view. First, one may examine the decrease within the conservative dimension within each location of socio-economic status. For instance, in this case, the percentage of persons of low and medium socio-economic locations decreases twice as much as the percentage of persons of high socio-economic status. Furthermore, in the liberal dimension, there is an increase of 18, 30, and 28% as one moves from high to low socio-economic status. Secondly, one may view the differential effect by examining the differences across both conservative and liberal dimensions within each class. That is, in the freshman sample, there is a difference of 18% between the high and low SES in the conservative dimension; whereas in the senior sample, there is only a difference of 9%. Also in the liberal dimension

*There was no significant difference in results dependent upon whether the computation^s of belief systems were based on the 50% or 67% criterion. For instance, within each of the sub-hypothesis findings, the 67% criterion produces results which have less percentage loss in the conservative dimension but more of an increase in the liberal dimension. Furthermore, within the mixed belief system category, whereas there is a consistent decrease in percentages in the 67% criterion findings, the 50% criterion has inconsistent results--i. e., gains and losses. However, the 50% criterion often has respondents of less than 10 in number which might account for this inconsistency. At any rate, it seems that from a consideration of all the categories of belief system, the 67% criterion provides better discrimination between categories. Therefore, the findings reported in the tables will be based solely on the 67% criterion. In cases where a significant distinction occurs on the basis of the criterion used, the 50% criterion findings will be included in the discussion.

TABLE 6a. Percentages of Freshman Sample's Type of Belief System by Socio-Economic Status

Type of Belief System	Socio-Economic Status			
	Lo	Med	Hi	Total
Conservative	37	31	19	26
Mixed	37	38	38	38
Liberal	26	31	43	36
	100	100	100	100
	N=161	N=105	N=289	N=555

TABLE 6b. Percentages of Senior Sample's Type of Belief System by Socio-Economic Status*

Type of Belief System	Socio-Economic Status			
	Lo	Med	Hi	Total
Conservative	20	12 ⁽⁶⁾	11	13
Mixed	25	27	28	27
Liberal	54	61	61	60
	99	100	100	100
	N=59	N=49	N=168	N=276

*N is included in parentheses when it is below 10.

of the freshman class, there is a difference of 17% from the low to the high SES whereas in the senior sample, there is only a 7% difference. Quite obviously, the wider difference within the freshman sample permits a greater potential for change in some locations within socio-economic status than others. This not only points out the import of differential location in the socio-economic status upon belief system formation but, after a comparison with the senior sample, also demonstrates the import of differential location for predisposing an individual to change his religious belief system. In sum, the null hypothesis is false because there is a much greater amount of religious belief system change in individuals of low and medium socio-economic status than in an individual of high socio-economic status.

In relation to those belief systems which were classified as "mixed," there is no real differences across socio-economic status. However, within each dimension of SES, there is a decrease in belief systems of this type. The percentages range from -10 to -12. Thus, whereas the SES variable does not differentiate between decreases within mixed types of belief systems, its lack of differentiation still points to an increasing consistency developing in a student's belief system at the end of the undergraduate college process, irrespective of socio-economic status.

Type Community and Belief System Change

The third hypothesis asserts that there is no difference between belief systems of the entering freshman and the graduating senior when the Community Index, consisting of size and type of community and size of high school graduating class, is controlled. However, the findings reported in Tables 7a and 7b substantiate that a differential change in belief systems occurs affecting the individual from a transitional community most prominently. To be more specific, the amount of change in percentages of conservative belief systems is -14, -19, and -8 reading across from rural to urban. Also, the percent of liberal belief system change from rural to urban categories is +22, +35, and +21 respectively. Thus, whereas change occurs in all dimensions, the most notable change in both a decrease of conservative belief systems and an increase of liberal belief systems occurs in the individual from a transitional community. However, perhaps it should be mentioned here that the data from the table based on a 50% criterion suggests that, in terms of decreasing conservatism and increasing liberalism, the order in both cases is highest in the transitional category and lowest in the urban category with the rural category closer in each case to that of the transitional one. Thus, this finding differs somewhat from that based on the 67% criterion with respect to the rural category. However, for purposes of consistency in the analysis, the present discussion will pertain only to the findings from Tables 7a and b.

TABLE 7a. Percentages of Freshman Sample's Type of Belief System (67% criterion) by Community Index

Type of Belief System	Community Index			Total
	rural	transitional	urban	
Conservative	33	26	23	26
Mixed	40	41	37	39
Liberal	27	33	40	34
Total	100 N=122	100 N=196	100 N=245	99 N=563

TABLE 7b. Percentages of Senior Sample's Type of Belief System (67% criterion) by Community Index*

Type of Belief System	Community Index			Total
	rural	transitional	urban	
Conservative	19	7 ⁽⁵⁾	15	14
Mixed	32	25	23	26
Liberal	49	68	61	60
Total	100 N=69	100 N=72	99 N=128	100 N=269

*N is included in parentheses when it is below 10.

Thus, within the conservative belief category, the highest change occurs in the following order: transitional, rural, urban. However, since there is only a difference of one percentage point between the gain in liberal belief systems, in the rural and urban categories the primary differentiating variable for change in this dimension involves the transitional category. In sum, whereas there is substantial change in percentages within both liberal and conservative dimensions of belief systems for individuals from transitional communities, there is more of a decrease in percentages of individuals holding conservative belief systems from rural communities than from urban ones; and in all categories, there is a rather significant amount of change. Therefore, since there exists a differential effect on religious belief systems of individuals from different "types" of communities, the null hypothesis is false.

Furthermore, in relation to mixed-types of belief systems, there is more consistency at the senior level in all "types" of communities; but the greatest increase in consistency of belief systems occurs in the transitional and urban categories. From another point of view, whereas the difference within the mixed type of belief systems within the freshman sample was only 3%, the difference in the senior sample is 9% with the highest type of mixed belief systems in the rural category. Thus, the lack of an equivalent decrease of mixed types of belief systems helps account for the discrepancy with this dimension. Perhaps the

discrepancy within this category--that is, a greater decrease than the urban category in percent of persons holding a conservative belief system, an equal increase with urban category in percent of persons holding a liberal belief system, and the least decrease of all in percentage of persons holding a mixed belief system--is due to an individual's linkage with a rural community and family, as well as with other types of systems. That is, whereas environment(s) unlike his rural community have caused him to discard some of his conservative beliefs, he has not discarded nearly all of them. Thus, the structural imbalance of this religious belief system may itself be a result of either an individual in transition or remaining between discrepant environments. Furthermore, on the basis of Toch's findings, which were reported earlier in this discussion, we would expect that these structurally imbalanced belief systems are quite likely to change thus reducing even further the percentages in this category. And, from indications of the direction of change reported in this study, there is a high probability that unless the individual returns to a rural environment his belief system will become a liberal one.

"SO" Religious Homogeneity and Belief System Change

The last hypothesis to be tested asserts that there is no difference in types of beliefs systems between the entering freshman and the

graduating senior when both samples' "significant others" have the same degree of homogeneity of religious preference. The findings reported in Tables 8a and 8b refute this null hypothesis by relating differential rates of SO religious homogeneity to differential rates of belief system change. More specifically, within the conservative dimension, the most pronounced decrease occurs in the percentage of persons who had heterogeneous "significant others." Also, within the mixed dimension, there is a progressive decrease in percentage of persons holding mixed belief systems as one moves from homogeneity to heterogeneity. Finally, within the liberal dimension, there is a progressive increase in the percent of persons holding liberal belief systems as one moves from homogeneous to heterogeneous religious preference of "significant others." In sum, an individual with "significant others" who have heterogeneous religious preference is most predisposed to change his religious belief systems; an individual with "significant others" who have "mixed" religious preferences is the second most likely to change his religious belief systems; and a person with "significant others" who has homogeneous religious preferences is the least likely to change. However significant the above finding of differential rate of change, it should still be kept in mind that there is a significant amount of change even in the lowest changers in these tables.

Discussion of relationship of "significant others" to the individual being studied was precluded by the size of the senior sample. That is,

TABLE 8a. Percentages of Freshman Sample's Type of Belief System (67% criterion) by "Significant Other" Religious Homogeneity Index

Type of Belief System	SO Religious Homogeneity Index			Total
	homogeneous	mixed	heterogeneous	
Conservative	30	24	22	27
Mixed	38	42	36	39
Liberal	31	34	42	34
Total	99 N=328	100 N=101	100 N=113	100 N=542

TABLE 8b. Percentages of Senior Sample's Type of Belief System (67% criterion) by "Significant Other" Religious Homogeneity Index*

Type of Belief System	SO Religious Homogeneity Index			Total
	homogeneous	mixed	heterogeneous	
Conservative	19	15	7(4)	15
Mixed	29	26	16(9)	25
Liberal	52	59	77	60
Total	100 N=105	100 N=74	100 N=56	100 N=235

*N is included in parentheses when it is below 10.

tables demonstrating merely the "significant others' " relation to the respondent justifiably provided no consistent results. That is, simply to know the type of "significant other" by peer, family, professional, or mixed is not sufficient. Rather, what is needed is to also know to what extent those "significant others" differ from the respondent in beliefs or preferences. Thus, it was decided to forego the inclusion of additional, but indecisive and insufficient, data on "significant others."

IMPLICATIONS AND CONCLUSION

This research points to the utility of certain theoretical concepts in terms of predisposing belief system change in situations of environmental change. Furthermore, import of the social structural variables studied in terms of predisposing differential amounts of change has been substantiated by the present research findings.

The implications of this study are multiple. For instance, Jacob's assertion that there is a relative small amount of basic value change during the college process, since he also included religious beliefs among the basic values held, is not supported by this study. Rather, it would seem from the findings reported here that a more accurate statement than some students change more than most students would be some students change much more than others but all change rather significantly. Or that some students' belief system changes are much greater than those of other students. In this case, the present study

points out not only the amount of change but also factors which account for differential change in belief systems. Furthermore, one possible conceptualization which would include the findings here would be to refer to religious belief systems as only one aspect of personality and examine its location in terms of the individual's self-esteem maintenance system. For instance, if the religious belief system were of low priority, then we would expect a high rate of change whereas if it were of high priority, we would expect a lower rate of change.

Other and perhaps more significant implications of this study might be in reference to occupational mobility, physical mobility, and interaction patterns. That is, it would seem that as an individual moves up the SES ladder, certain beliefs which he held are no longer functional and, therefore, there is a high probability of change. Secondly, the individual from a rural or transitional environment will also likely change his belief patterns as he moves into more highly urbanized and structurally differentiated environments. Thirdly, the last hypothesis tested seems to have implications for heterogeneity of friendship structures and new associational networks or for interaction patterns with persons of heterogeneous backgrounds relative to a given belief phenomenon.

Finally, the findings reported in this study certainly do not speak of every individual; that is, they refer to probabilities, likelihood, increases, decreases, etc. Thus, there certainly could exist persons

who do not conform to the majority. However, investigation into dynamics of change within the environmental change process are needed to study the process of accommodation and resistance to changes in ideological perspectives. Nevertheless, the current study does provide valid confirmation of social structural variables which presuppose change in belief systems subsequent to social environmental changes. Thus, on the basis of these findings, we can hypothesize a rather high probability of belief change for an individual who does change his environment. Perhaps one of the most interesting extensions of this study would be to focus on the role of dissonance and the emotional cost to individuals of various strata, communities, ethnic backgrounds, etc. to become a part of a divergent environment. For instance, the differences which occur in belief system change within socio-economic status would seem to be most extreme in terms of emotional cost to those individuals from low and medium locations in the SES structure.

In summary, the current research was of an exploratory nature to examine the utility of certain theoretical constructs in reference to the interaction of environmental change and belief change. Thus, whereas it would seem that the import of the constructs tested herein is significant, this research was only a preliminary step toward an explanation of belief system change. Furthermore, the theoretical import of these constructs is an open question which only subsequent research can answer. It would seem that the next logical inquiry into the

interaction of environmental and belief change would be to focus on the dynamic processes occurring within individuals who have made an environmental change. In other words, to study the dynamics of how and why changes in belief systems occur.

REFERENCES CITED

- Allport, G. W. The Individual and His Religion. New York: The Macmillan Company, 1950.
- Allport, G. W., J. M. Gillespie and J. Young. "The Religion of the Post-War College Student," The Journal of Psychology, 25 (1948), pp. 3-33.
- Backstrom, Charles H. and Gerald D. Hursh. Survey Research. Northwestern University Press, 1963.
- Bellah, Robert. "Religious Evolution," American Sociological Review, 29 (June, 1964), pp. 358-374.
- Berger, Peter L. "A Sociological View of the Secularization of Theology," Journal for the Scientific Study of Religion, 5 (Fall, 1966), pp. 3-13.
- _____. The Sacred Canopy, New York: Doubleday & Co., Inc., 1967.
- Couch, Carl J. and John S. Murray. "Significant Others and Evaluation," Sociometry, 27 (1964), pp. 502-509.
- Demerath, N. J. III. Social Class in American Protestantism, Chicago: Rand McNally & Co., 1965.
- Dreger, Ralph M. "Just How Far Can Social Change Change Personality," The Journal of Psychology, 64 (1966), pp. 167-191.
- Glock, Charles Y. and Rodney Stark. Religion and Society in Tension. Chicago: Rand McNally & Co., 1965.
- Goldsen, Rose K., et al., What College Students Think. New York: D. Van Nostrand Co., Inc., 1960.
- Jacob, Philip E. Changing Values in College. New Haven, Conn.: The Edward W. Hazen Foundation, 1956.
- Kahl, Joseph A. The American Class Structure. New York: Holt, Rinehart & Winston, 1953.
- Lenski, Gerhard. The Religious Factor. Garden City, New York: Doubleday & Co., Inc., 1961.

- Luckmann, Thomas. The Invisible Religion. New York: The Macmillan Co., 1967.
- Newcomb, T. M. "Student Peer-Group Influence," in College and Character. Nevitt Sanford (ed.), New York: John Wiley & Sons, Inc., 1964.
- Niebuhr, Richard. The Social Sources of Denominationalism. New York: The World Publishing Co., 1964.
- Parsons, Talcott. "Sociology and Social Psychology," in Religious Perspectives in College Teaching, Hoxie N. Fairchild (ed.), New York: The Ronald Press Co., 1952.
- _____. The Social System. New York: The Free Press, 1951.
- Payne, Isabelle. "The Relationship Between Attitudes and Values and Selected Background Characteristics." Unpublished Ed. D. dissertation, Michigan State University, 1961.
- Pope, Liston. Millhands and Preachers. New Haven, Conn.: Yale University Press, 1942.
- Rokeach, Milton. The Open and Closed Mind. New York: Basic Books, Inc., 1960.
- Rushby, William F. "Location in the Social Structure, Significant Others, and Level of Educational and Occupational Aspirations: An Exploratory Study." Unpublished M. A. thesis, Michigan State University, 1966.
- Shiner, Larry. "The Concept of Secularization in Empirical Research," The Journal for the Scientific Study of Religion. Fall, 1967.
- Summerskill, John. "Dropouts From College," in College and Character, Nevitt Sanford (ed.), New York: John Wiley & Sons, Inc., 1964.
- Toch, Hans H., and Robert Anderson. "Religious Belief and Denominational Affiliation," Religious Education. May-June, 1960.
- Toch, Hans H. and Robert T. Anderson, James A. Clark and James J. Mullin. "'Secularization' in College: An Exploratory Study," Religious Education. Nov.-Dec., 1964.
- Weber, Max. The Protestant Ethic and the Spirit of Capitalism. New York: Charles Scribner's Sons, 1958.

Wilson, Bryan R. Religion in Secular Society. London: C. A. Watts & Co., ltd., 1966.

Yinger, J. Milton. Sociology Looks at Religion. New York: The Macmillan Co., 1961.

APPENDIX: QUESTIONNAIRES

CONCLUSIONS AND RECOMMENDATIONS

The results of the study indicate that the use of a structured approach to the design of a new product can significantly reduce the time and cost of development. The structured approach, which includes the use of a design template, a design checklist, and a design review process, was found to be more effective than the unstructured approach. The structured approach was also found to be more consistent and more repeatable than the unstructured approach.

The results of the study also indicate that the use of a structured approach to the design of a new product can significantly reduce the risk of failure. The structured approach, which includes the use of a design template, a design checklist, and a design review process, was found to be more effective than the unstructured approach. The structured approach was also found to be more consistent and more repeatable than the unstructured approach.

The results of the study also indicate that the use of a structured approach to the design of a new product can significantly reduce the risk of failure. The structured approach, which includes the use of a design template, a design checklist, and a design review process, was found to be more effective than the unstructured approach. The structured approach was also found to be more consistent and more repeatable than the unstructured approach.

The results of the study also indicate that the use of a structured approach to the design of a new product can significantly reduce the risk of failure. The structured approach, which includes the use of a design template, a design checklist, and a design review process, was found to be more effective than the unstructured approach. The structured approach was also found to be more consistent and more repeatable than the unstructured approach.

The results of the study also indicate that the use of a structured approach to the design of a new product can significantly reduce the risk of failure. The structured approach, which includes the use of a design template, a design checklist, and a design review process, was found to be more effective than the unstructured approach. The structured approach was also found to be more consistent and more repeatable than the unstructured approach.

The results of the study also indicate that the use of a structured approach to the design of a new product can significantly reduce the risk of failure. The structured approach, which includes the use of a design template, a design checklist, and a design review process, was found to be more effective than the unstructured approach. The structured approach was also found to be more consistent and more repeatable than the unstructured approach.

CONFIDENTIAL: FOR RESEARCH PURPOSES ONLY

Instructions:

The questionnaire, as you will see, is organized into two parts. This section concerns certain aspects of your personal background. Please read carefully and answer each item as accurately as possible. If you cannot answer the question, write in "I do not know."

I. Personal Background:

1. Sex (check one) 1. Male____ 2. Female____
2. How old were you on your last birthday? _____
3. Marital Status: 1. ____Married, 2. ____Single 3. ____Divorced
4. In what College of the University are you currently enrolled?
 1. ____Agriculture
 2. ____Arts and Letters
 3. ____Business
 4. ____Communication Arts
 5. ____Education
 6. ____Engineering
 7. ____Home Economics
 8. ____Natural Science
 9. ____Vet. Medicine
 10. ____Human Medicine
 11. ____Social Science
5. What is your cumulative Grade Point Average? _____
6. How many years have you been at MSU? Circle One 1 2 3 4 More

II. Religious Activities During College:

7. My religious preference now is (please be specific)_____.
8. Have you ever belonged to another religion and/or denomination?
____yes ____no. If yes, to which did you belong? _____.
9. During college I attended religious services:
 - every week_____
 - about twice a month_____
 - about once a month_____
 - about every six weeks_____
 - about every three months_____
 - less than every three months_____
 - not at all_____
10. List any church-related organizations (formal or informal) in which you have participated during college.

III. Other organized activities during college:

11. Are you a member of a fraternity or sorority?
1. _____yes 2. _____no
12. Are you a member of any honorary or professional or pre-professional societies?
1. _____yes 2. _____no
13. Are you now or have you been an officer or committee chairman in your living unit or in student government?
1. _____yes 2. _____no
14. Do you regularly participate in any organized special interest group or club on campus, for instance, a music, drama or hobby group?
1. _____yes 2. _____no
15. Do you now participate or have you in the last year participated in any intramural or varsity sport?
1. _____yes 2. _____no

IV. Community Information Prior to College:

16. Name of community in which you have lived the most between ages 5-17: _____
Approximate mileage from campus to your home: _____
17. Approximate size of community?
Under 2,500 _____ 10,000 - 50,000 _____ over 100,000 _____
2,500 - 10,000 _____ 50,000 - 100,000 _____
18. Which of the following would most accurately describe your home community?
(If mixed, check no more than two.)
1. _____ Agricultural 4. _____ Military
2. _____ Educational Center 5. _____ Suburban residential
3. _____ Industrial 6. _____ Other (please specify _____)
19. Type of high School attended:
_____ Public _____ Private _____ Parochial
20. Approximately how many were in your high school graduating class?
under 100 _____ 250 - 500 _____ over 1,000 _____
100 - 250 _____ 500 - 1,000 _____
21. Approximate size of church or synagogue attended?
under 100 _____ 250 - 500 _____ over 1,000 _____
100 - 250 _____ 500 - 1,000 _____
22. Approximately how often did (or do) you go home each year in school?
(answer in terms of the following: every week; about twice a month;
about once a month; about every six weeks; about every three months;
less than every three months.)
1. Freshman year _____
2. Sophomore year _____
3. Junior year _____
4. Senior year _____

- 4 -

It is commonly recognized that other persons help us formulate our philosophical and religious views. List below all those individuals who have influenced your thinking significantly (whether negatively or positively) and have helped you arrive at your present position. Identify each person by name and his or her relationship to you as per example given. Please be sure you have thought of everyone — your parents, other relatives, friends, teachers, etc.

[illegible]

CONFIDENTIAL: FOR RESEARCH PURPOSES ONLY

This second section of the questionnaire is a Belief Inventory developed by Drs. Toch and Anderson of Michigan State University. It has been used in several previous studies with consistent results.

Please read the statements carefully. Whenever you find one with which you AGREE, please check the space under "AGREE." Whenever you see one with which you DISAGREE, please check the space under "DISAGREE."

If you neither agree nor disagree with a statement, please leave both spaces blank, but make sure you catch all the statements about which you feel one way or the other.

	<u>Agree</u>	<u>Disagree</u>
1. My physical body will be resurrected in the after-life.	_____	_____
2. Things happen that can only be explained in supernatural terms.	_____	_____
3. Churches are too far behind the times for modern life.	_____	_____
4. The mind and the soul are just expressions of the body.	_____	_____
5. Only the clergy are competent to interpret scripture.	_____	_____
6. There is not enough evidence for me to be able to say "there is a God" or "there is no God."	_____	_____
7. It is possible that a new religion may arise that will be better than any present religion.	_____	_____
8. We should concentrate on saving individuals. When enough individuals are saved, society as a whole will be saved.	_____	_____
9. God created the universe in six days and rested the seventh.	_____	_____
10. As the world becomes smaller and smaller, Christianity will be forced to compromise with other religions of the world on matters of belief and practice.	_____	_____
11. All information about history, nature and science is already contained in the Bible, ready to be interpreted.	_____	_____
12. Jesus differs from us only in the degree of perfection he attained.	_____	_____
13. Jesus never intended to found a church.	_____	_____
14. Everyone should interpret the Bible in his own way because the Bible says different things to different people.	_____	_____
15. It makes little difference to what church one belongs.	_____	_____

(over)

	<u>Agree</u>	<u>Disagree</u>
16. People can be good Christians and never go to church.	_____	_____
17. Our church is the one church founded by God himself.	_____	_____
18. Belief in miracles is not essential.	_____	_____
19. God is a product of man's wishful thinking.	_____	_____
20. A church is a place for religion—churches shouldn't get involved in social and political issues.	_____	_____
21. Man is essentially good.	_____	_____
22. Jesus was only a man like anyone else.	_____	_____
23. There is no life after death.	_____	_____
24. Experiences of conversion are superficial and have no lasting effects.	_____	_____
25. Buddha and Mohammed were as much prophets of God for their cultures as Christ was for ours.	_____	_____
26. Churches are a leftover from the Middle Ages and earlier superstitious times.	_____	_____
27. The church enjoys special divine guidance.	_____	_____
28. Each man has a spark of the divine.	_____	_____
29. Man lives on only through his good works, through his children and in the memory of his dear ones.	_____	_____
30. Every word in the Bible is divinely inspired in all respects.	_____	_____
31. The scientific method is the only way to achieve knowledge.	_____	_____
32. There is no salvation for one who has not accepted Jesus Christ.	_____	_____
33. Although the Bible is inspired by God, some parts of it are no longer relevant to us today.	_____	_____
34. Nothing should ever be called "sin."	_____	_____
35. Man is essentially neither good nor evil.	_____	_____
36. The church is the ultimate authority on religious knowledge.	_____	_____
37. The minister or priest exercises powers that ordinary men do not have.	_____	_____
38. One day Jesus Christ will return to earth in the flesh.	_____	_____

	<u>Agree</u>	<u>Disagree</u>
39. Man is headed for destruction; only God's miraculous intervention can save us.	_____	_____
40. It doesn't much matter what one believes, as long as one leads a good life.	_____	_____
41. If faith conflicts with reason, we should be guided by faith.	_____	_____
42. In Holy Communion the bread and wine change into the body and blood of Jesus.	_____	_____
43. There is no such thing as a "miracle."	_____	_____
44. The Church was created by man, not by God.	_____	_____
45. The Church Sanctuary should be used only for worship services.	_____	_____
46. There is only one true Church.	_____	_____
47. There is no need for miracles because natural law itself is the greatest miracle of all.	_____	_____
48. The Church was created by God.	_____	_____
49. All non-Christians will go to hell.	_____	_____
50. Every conversion is a miracle of God.	_____	_____
51. Man is made up of a body and a soul.	_____	_____
52. A person should know the day he has become converted or accepted by Christ.	_____	_____
53. Unless missionaries are successful in converting people in non-Christian lands, these people will have no chance for salvation.	_____	_____
54. To be a Christian, one must be converted or born again.	_____	_____
55. The church building has a special holiness that other buildings do not have.	_____	_____
56. The Revised Standard Version of the Bible is a truer version of the Bible than the King James version.	_____	_____
57. There is no soul, in any sense of the word.	_____	_____
58. The only significance of Jesus Christ is that in his life and message he left an example for later generations to follow.	_____	_____
59. Everything that happens in the universe happens because of natural causes.	_____	_____
60. All functions of the church could be handled by other institutions.	_____	_____

CONFIDENTIAL: FOR RESEARCH PURPOSES ONLY

Instructions:

The questionnaire, as you will see, is organized into two parts. This section concerns certain aspects of your personal background. Please read carefully and answer each item as accurately as possible. If you cannot answer the question, write in "I do not know."

I. Personal Background:

1. Name (optional) _____
2. Sex (check one) 1. Male _____ 2. Female _____
3. How old were you on your last birthday? _____
4. Marital Status: 1. _____ Married 2. _____ Single 3. _____ Divorced
5. My religious preference now is (please be specific) _____.
6. Have you ever belonged to another religion and/or denomination?
____yes ____no. If yes, to which did you belong? _____.
7. This past year I attended religious services:
every week _____ about every three months _____
about twice a month _____ less than every three months _____
about once a month _____ not at all _____
about every six weeks _____
8. List any church-related organizations (formal or informal) in which you have participated during high school.

II. Community Information:

9. Name of community in which you have lived the most between ages 5-17:
_____. Approximate size of community?
Under 2,500 _____ 10,000-50,000 _____ Over 100,000 _____
2,500-10,000 _____ 50,000-100,000 _____
10. Which of the following would most accurately describe your home community? (If mixed, check no more than two)
 1. _____ Agricultural
 2. _____ Educational Center
 3. _____ Industrial
 4. _____ Military
 5. _____ Suburban residential
 6. _____ Other (please specify) _____
11. Type of high school attended:
____Public _____Private _____Parochial

(over)

12. Approximately how many were in your high school graduating class?
 Under 100 _____ 250 - 500 _____ OVER 1,000 _____
 100 - 250 _____ 500 - 1,000 _____
13. Approximate size of church or synagogue attended?
 Under 100 _____ 250 - 500 _____ OVER 1,000 _____
 100 - 250 _____ 500 - 1,000 _____

III. Family Background:

14. What is the highest level of formal education obtained by your parents? (Check one in each column.)

	FATHER	MOTHER
1. Eight or less grades	_____	_____
2. Grades 9-11	_____	_____
3. High School degree	_____	_____
4. Some college	_____	_____
5. College degree	_____	_____
6. Advanced college degree	_____	_____

15. Father's Occupation: _____
16. If your mother works outside the home, what is her occupation?

17. Family's approximate annual income:
 1. _____ Under \$5,000 3. _____ \$10,000 - \$15,000
 2. _____ \$5,000 - \$10,000 4. _____ Over \$15,000

18. Father's Organizational Membership:
 A. Religious Preference (If Protestant, specify denomination):

Member: _____ yes _____ no _____
 Attends: every week _____ about every 6 weeks _____
 about twice a month _____ about every 3 months _____
 about once a month _____ less than every 3 mo. _____
 not at all _____

- B. To which other organizations does he belong?
 _____ Kiwanis _____ Country club _____ Music, drama, art
 _____ Rotary _____ Athletic club _____ club
 _____ Other service clubs _____ Other recreational _____ Cultural club
 _____ Professional organization _____ club

19. Mother's Organizational Membership:
 A. Religious Preference (If Protestant, specify denomination):

Member: _____ yes _____ no _____
 Attends: every week _____ about every 6 weeks _____
 about twice a month _____ about every 3 months _____
 about once a month _____ less than every 3 mo. _____
 not at all _____

- B. To which other organizations does she belong?
 _____ Red Cross _____ Bridge club _____ Music, drama, art club
 _____ P. T. A. _____ Country club _____ Cultural club
 _____ Women's Service _____ Social club _____ Professional organization
 _____ Clubs _____ or club

IV. SIGNIFICANT OTHERS

It is commonly recognized that other persons help us formulate our philosophical and religious views. List below the five individuals who have influenced your thinking the most (whether negatively or positively) and have helped you arrive at your present position. Identify each person by his initial and his relationship to you as per example given. Please include all possibilities--your parents, other relatives, friends, teachers, etc.

A. His or Her Initials (for instance James Potts)	B. Relationship to me (Be as specific as possible)	C. His or Her Religious Preference	D. Positive or Negative Influence	E. How strongly does he or she agree with your religious beliefs: Very Strongly, Strongly, or Not too strongly.
Example: J. P.	High school friend	Presbyterian	positive	strongly
1.				
2.				
3.				
4.				
5.				

CONFIDENTIAL: FOR RESEARCH PURPOSES ONLY

This second section of the questionnaire is a Belief Inventory developed by Drs. Toch and Anderson of Michigan State University. It has been used in several previous studies with consistent results.

Please read the statements carefully. Whenever you find one with which you AGREE, please check the space under "AGREE". Whenever you see one with which you DISAGREE, please check the space under "DISAGREE."

If you neither agree nor disagree with a statement, please leave both spaces blank, but make sure you catch all the statements about which you feel one way or the other.

- | | <u>AGREE</u> | <u>DISAGREE</u> |
|--|--------------|-----------------|
| 1. My physical body will be resurrected in the after-life. | _____ | _____ |
| 2. Things happen that can only be explained in supernatural terms. | _____ | _____ |
| 3. Churches are too far behind the times for modern life. | _____ | _____ |
| 4. The mind and the soul are just expressions of the body. | _____ | _____ |
| 5. Only the clergy are competent to interpret scripture. | _____ | _____ |
| 6. There is not enough evidence for me to be able to say "there is a God" or "there is no God." | _____ | _____ |
| 7. It is possible that a new religion may arise that will be better than any present religion. | _____ | _____ |
| 8. We should concentrate on saving individuals. When enough individuals are saved, society as a whole will be saved. | _____ | _____ |
| 9. God created the universe in six days and rested the seventh. | _____ | _____ |
| 10. As the world becomes smaller and smaller, Christianity will be forced to compromise with other religions of the world on matters of belief and practice. | _____ | _____ |
| 11. All information about history, nature and science is already contained in the Bible, ready to be interpreted. | _____ | _____ |
| 12. Jesus differs from us only in the degree of perfection he attained. | _____ | _____ |
| 13. Jesus never intended to found a church. | _____ | _____ |
| 14. Everyone should interpret the Bible in his own way because the Bible says different things to different people. | _____ | _____ |
| 15. It makes little difference to what church one belongs. | _____ | _____ |

(over)

	<u>Agree</u>	<u>Disagree</u>
16. People can be good Christians and never go to church.	_____	_____
17. Our church is the one church founded by God himself.	_____	_____
18. Belief in miracles is not essential.	_____	_____
19. God is a product of man's wishful thinking.	_____	_____
20. A church is a place for religion—churches shouldn't get involved in social and political issues.	_____	_____
21. Man is essentially good.	_____	_____
22. Jesus was only a man like anyone else.	_____	_____
23. There is no life after death.	_____	_____
24. Experiences of conversion are superficial and have no lasting effects.	_____	_____
25. Buddha and Mohammed were as much prophets of God for their cultures as Christ was for ours.	_____	_____
26. Churches are a leftover from the Middle Ages and earlier superstitious times.	_____	_____
27. The church enjoys special divine guidance.	_____	_____
28. Each man has a spark of the divine.	_____	_____
29. Man lives on only through his good works, through his children and in the memory of his dear ones.	_____	_____
30. Every word in the Bible is divinely inspired in all respects.	_____	_____
31. The scientific method is the only way to achieve knowledge.	_____	_____
32. There is no salvation for one who has not accepted Jesus Christ.	_____	_____
33. Although the Bible is inspired by God, some parts of it are no longer relevant to us today.	_____	_____
34. Nothing should ever be called "sin."	_____	_____
35. Man is essentially neither good nor evil.	_____	_____
36. The church is the ultimate authority on religious knowledge.	_____	_____
37. The minister or priest exercises powers that ordinary men do not have.	_____	_____
38. One day Jesus Christ will return to earth in the flesh.	_____	_____

	<u>Agree</u>	<u>Disagree</u>
39. Man is headed for destruction; only God's miraculous intervention can save us.	_____	_____
40. It doesn't much matter what one believes, as long as one leads a good life.	_____	_____
41. If faith conflicts with reason, we should be guided by faith.	_____	_____
42. In Holy Communion the bread and wine change into the body and blood of Jesus.	_____	_____
43. There is no such thing as a "miracle."	_____	_____
44. The Church was created by man, not by God.	_____	_____
45. The Church Sanctuary should be used only for worship services.	_____	_____
46. There is only one true Church.	_____	_____
47. There is no need for miracles because natural law itself is the greatest miracle of all.	_____	_____
48. The Church was created by God.	_____	_____
49. All non-Christians will go to hell.	_____	_____
50. Every conversion is a miracle of God.	_____	_____
51. Man is made up of a body and a soul.	_____	_____
52. A person should know the day he has become converted or accepted by Christ.	_____	_____
53. Unless missionaries are successful in converting people in non-Christian lands, these people will have no chance for salvation.	_____	_____
54. To be a Christian, one must be converted or born again.	_____	_____
55. The church building has a special holiness that other buildings do not have.	_____	_____
56. The Revised Standard Version of the Bible is a truer version of the Bible than the King James version.	_____	_____
57. There is no soul, in any sense of the word.	_____	_____
58. The only significance of Jesus Christ is that in his life and message he left an example for later generations to follow.	_____	_____
59. Everything that happens in the universe happens because of natural causes.	_____	_____
60. All functions of the church could be handled by other institutions.	_____	_____

8/13/63

MICHIGAN STATE UNIVERSITY LIBRARIES



3 1293 03145 9757