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The Creationist Movement: Science, Religion and Ideology

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THE CREATIONIST MOVEMENT: SCIENCE, RELIGION AND IDEOLOGY

by

George M. Bevins

A Thesis
Submitted to the
Faculty of The Graduate College
in partial fulfillment of the
requirements for the
Degree of Master of Arts
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A sample of literature produced by participants in the "creationist movement" is examined in an effort to delineate the ideology of the movement. This ideology is seen as a repertoire of images of science, evolution and society which is used by creationists in their efforts to propagate their movement. Based on this literature, an "ideological substructure of belief" within the creationist movement is described, consisting of their belief in a created normative order in the world and of their fear that this order is breaking down. It is argued that the various particular aspects of the creationists' social ideology, their theory of knowledge, and their images of science and evolution can all be seen as derivatives of this ideological substructure.
ACKNOWLEDGEMENTS

Many people influence either directly or indirectly a given academic production, and this one is no exception. Mention is here made of those individuals to whom I am indebted for some form of assistance. Many thanks go to: Kathi Bevins who has endured me during the course of this project and who graciously typed the final manuscript; Jerry Markle who has been an invaluable aid as mentor, advisor, devil's advocate, and consultant on matters scientific; readers Bob Wait and Ron Kramer who have greatly improved the study with comments which provided insight and clarity; Thomas Gieryn, Barry Seltser, Paul Wienir, and Salahuddin Ahmed who have reviewed and provided comments on all or parts of the study at various stages of completion; Terry Portfleit and Brenda King who encouraged me in the early stages of my career, but perhaps did not see this coming; Eric Snider for many hours of constructive discourse on fundamentalism as a political phenomenon, usually conducted while trout fishing; and to Amy and T.J. for distracting me, thereby forcing me to occasionally stop and smell the flowers.

George M. Bevins
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CHAPTER 1

INTRODUCTION

The Movement

During the summer of 1925 the town of Dayton, Tennessee became the focus of national attention. The State of Tennessee had recently enacted legislation forbidding the teaching of evolution in the state's schools. The American Civil Liberties Union (ACLU) set out to test the constitutionality of that law and offered legal assistance to anyone willing to stand trial in a test case. Some local business leaders in Dayton convinced John Scopes, a high school teacher who was not quite sure whether or not he had violated the "monkey law", to take up the ACLU's offer (Scopes, 1967, pp. 59-61). The world was then treated to the classic confrontation of Clarence Darrow v. William Jennings Bryan, science v. religion, urban sophistication v. rural simplicity.

Over a half-century later another state law was enacted and subsequently challenged, this time in Arkansas. The Arkansas law required a "balanced treatment" of the creation account of origins whenever the evolutionary account is taught in schools. The creation/evolution controversy had again come to trial, and the outcome of the Arkansas trial of 1981 appears essentially the same as the outcome of the Scopes trial of 1925. In both cases the creationist movement formally suffered a setback. John Scopes had been convicted and fined but later the decision was reversed on a
technicality and the monkey law" was largely ignored (Settle, 1972, p. 114). Thus the creationists had won the battle at Dayton, but had, through ridicule by the press and public embarrassment, lost the war to keep evolution out of the schools. The result of the Arkansas trial was more straightforward. The law requiring equal treatment of creation and evolution was struck down in court. The creationists had apparently lost again a major battle to have their explanation of origins taught in public schools.  

But behind the similar outcomes of the two trials lay some very basic social differences. It is true that in both Tennessee and Arkansas the creationists had succeeded in having legislation favorable to creationism passed and such legislation was ultimately emasculated through either the direct decision of the court (in 1981) or through the effects of public embarrassment (in 1925). But the battle lines were drawn differently in each case. At the Scopes trial in 1925 the creationists in the rural South were staging a "last stand" against the encroachment of science. Science was challenging the monopoly which religious beliefs had had over education. In 1981 at Arkansas the scientists were firmly in control of what was the received notion of origins and the creationists were now on the offensive. The similar outcomes of the Scopes and Arkansas cases must not obscure for us the basic reversal of roles which the social organization of science and the creationist movement had experienced in only 56 years.

Because of this role reversal we would expect that the rhetoric and the political tactics of creationists would be different at the
Arkansas trial than they were in Tennessee. Nelkin noted (1982, p. 72) that the style of the modern creationists "is strikingly different from that of their flamboyant ancestors." The offensive action of creationists in the 1980's calls for different behavior than did the defense they mounted in 1925 at the Scopes trial. This observation suggests the need for a number of investigations; of the reasons for and existence of the different rhetorical forms which creationists used in 1925 and in 1981, of the different images of science they had, and of the reactions of scientists to the creationist movement. In this investigation I have chosen to lay the groundwork for further socio-historical analyses of the creationist movement by focusing on the strategy which underlies and guides the tactics of the present day creationists—the basic ideology and beliefs which creationists share about the nature of science, evolution, and society.

The Problem

Just what are the creationists' present beliefs; is there some system of beliefs which guides the creationists' approach to science as well as to the rest of the world? And what insights can these beliefs give us into the creationists' claims of being scientific? These are the major problems with which I will deal in this study. More specifically I will be exploring what creationists think science is, what evolution is, what creationism is. I intend to gain insight into the creationists' perceived basis for their knowledge and into their social ideology. I will be comparing two
major groups within the creationist movement, the "scientific creationists", and a group of fundamentalist ministers who comment upon the creation/evolution controversy.

Probably the best way of discerning the beliefs of creationists, both the overt and the hidden beliefs, is to examine what the creationists themselves have to say. There is a large and growing body of creationist literature which has been produced over the past 20 years and which sets forth the program of the creationist movement. From this literature fifteen monographs have been selected and closely examined. The results and analysis of this examination of the beliefs creationists have about science are presented as the major analytic concern of this study.

Chapter 2 is a discussion of interests and ideology which will set the theoretical tone of the investigation. Chapter 3 deals with some important historical antecedents of the creationist movement, and chapter 4 with the social organization of modern creationism. In chapter 5 the first six research questions of the study are addressed, and in chapter 6 the social ideology of the creationist movement is discussed. Chapter 7 completes the study with conclusions about the significance of the investigation and its application to the study of other social movements.
CHAPTER II

INTERESTS AND IDEOLOGY

In this investigation I take as basic the contention that a primary factor in the generation and final form of knowledge is the social and historical context in which knowledge is produced. Social interaction, conflict, interests and political context all affect the production of knowledge and beliefs. Indeed, this assumption is the defining feature of the sociology of knowledge, and is a common feature of two competing traditions in the sociology of knowledge and science, that of the "Mertonian School" on the one hand, and that of the social constructionist programmes on the other.

In the words of Robert Merton, the sociology of knowledge does not explain knowledge in terms of an exclusive relationship between subject and object, but "came into being with the signal hypothesis that even truths were held to be socially accountable" (1973, p. 11). That is, even what we would call truth is influenced by social factors. David Bloor, speaking from the social constructionist camp, makes much the same assertion. He states that the purpose of his "strong programme" is to bring the sociological study of science well within the sociology of knowledge, to treat scientific knowledge as a social construction just as other forms of knowledge and belief are, "All knowledge, whether it be in the empirical sciences or even in mathematics, should be treated [by sociologists], through and through, as material for investigation"
(1977, p. 1). Thus, the contention that social factors influence knowledge is basic to the sociology of knowledge, competing camps notwithstanding. Indeed, it has been suggested that to make any distinction between the two major camps on this point is misleading (see Gieryn, 1982).

Under the heading of "social factors" we could list a number of concepts. Power, careers, groups, mode of production, and technological innovation are but a few. In this investigation the closely related concepts of "interests" and "ideology" are important. Mulkay unites both concepts in describing the behavior of scientists. He lists a number of features of science which, he says, scientists "selectively employ . . . in order to establish social meanings which help them achieve their objectives" (1980, p. 101). That is, there is a sizeable repertoire of meanings associated with science. In a given social situation, such as negotiation with other interest groups over scarce financial resources, certain of these features of science are emphasized by scientists because of their efficacy in establishing a particular (and favorable under the given circumstances) view of science. This repertoire of meanings is collectively termed by Mulkay, "the ideology of science".

The main features of the ideology of science can be summarized as follows: that science is unlike any other activity . . . ; that mature scientists must have complete independence if they are to carry out their work properly; that the internal value system of science guarantees an ethical standard which requires no outside surveillance; that, in the long run, a large proportion of basic knowledge pays off in practical terms to the potential benefit of society; that the knowledge thus produced is, in itself, socially and politically neutral; that scientific
research should receive maximum support; but that the research community should not be controlled from the outside nor held accountable for the consequences arising from use of its products. (Mulkay, 1980, p. 101)

According to Mulkay's explanation, scientists confronted with cuts in funding of basic research might respond with arguments that basic research has unforeseen benefits in the form of future technological applications. Or when faced with arguments that scientists should give account of their use of time and funding they may respond by emphasizing their value of intellectual independence and autonomy from outside control. The specific content of the arguments is not as important as is Mulkay's description of a body of values or meanings which can be selectively drawn upon as the situation warrants.

Petersen & Markle used different terminology but drew similar implications in their investigation of the controversy surrounding the use of laetrile in cancer treatment. They noted that both advocates and opponents of laetrile utilized ideologies which they felt would advance their respective interests.

Laetrile proponents used a populist ideology to expand the controversy into the political arena; opponents have tried to restrict the movement's growth by invoking an ideology of expertise. (Petersen & Markle, 1979, p. 154)

It would not have served the interests of the opponents of laetrile therapy to appeal to the public's "common sense"; common sense could lead people to embrace rather than to reject laetrile. Instead, the expertise of scientists and physicians, and the deference which this expertise often commands, was invoked.

There are indications that this process occurs in the
creation/evolution controversy: that creationists selectively use different values or different types of knowledge claims to advance their position. On the one hand scientific creationists emphasize their professional credentials in the form of graduate degrees, on the other they attempt to arrange public debates with evolutionary scientists. Here creationists attempt to publish reports in professional journals, there we find them asking the courts to arbitrate the dispute. Do creationists have a collection of meanings which they selectively employ to advance their interests in a manner similar to that of scientists as described by Mulkay? And if so, what are these meanings? The first three research questions of this investigation are designed to tap these meanings. What is evolution from the creationists' point of view? What do creationists say science is? What do they claim is the best way of knowing?

Once we have determined the content of the creationists' ideology, the job remains of exploring those interests which the ideology might serve. Barnes suggests that when dealing with ideology, we should look for disguise or concealment of an interest which generates it (1974, pp. 142-143, 148; 1977, p. 33). Barnes borrows from Engels (1893) and Marx (1969) to develop this approach. In criticizing the work of such economists as Smith and Ricardo, Marx pointed out that their work was overtly aimed at solving questions and explaining the economic world at hand—producing instrumental knowledge. Yet Smith and Ricardo showed repeatedly that "their naturalistic conclusions were
modulated and amended" by hidden interests (Barnes, 1977, p. 32). Their preference for laissez-faire politics influenced the directions and conclusions of their investigation. Thus they produced instrumental, overtly unbiased knowledge which was covertly caused or biased by a preference for a particular state of affairs.

Bloor takes Barnes's position that scientific or other instrumental knowledge is often influenced by hidden interests even farther. He analyzes the Popper/Kuhn debate in the philosophy of science and notes that each position reflects a social ideology—enlightenment and romantic, respectively (Bloor, 1976, pp. 48-65). Bloor concludes with the hypothesis that even epistemologies, that is, theories of knowledge "are, in effect, reflections of social ideologies" (p. 65).

These views of ideology are not inconsistent with Mulkay's. While Mulkay does not stress the role of hidden interests per se, the status of some interests as hidden, or at least as publicly unacknowledged, is of importance. Such an approach to ideology, that instrumental knowledge, which may be either "true" or "false", can have its basis in hidden or unacknowledged interests, and that the very theories of knowledge which a group professes reflect social ideologies, suggests three additional questions for this study of the images of science and society which creationists hold. Are there congruences between the social organization of creationism and the scientific beliefs of creationists which indicate hidden interests? Is the creationists' theory of knowledge indicative of some social ideology? Can we find similar historical indicators of
This ideology?

There is a final research question, anticipated in the work of Nelkin, with which this investigation deals. Nelkin reflects Mulkay's description of the ideology of scientists in describing what she sees as the major interest behind the creationists' rhetoric. She describes the use by creationists of the rhetoric of participation, accountability and local control. These catch-words of the left in the Sixties were taken up and used by creationists in the Seventies as "a way to bring authoritarian religious values back into the public schools" (Nelkin, 1982, p. 177). The creationists see the issue as a religious and moral one. Evolution is "perceived as a direct and explicit threat to personal morality and religious belief" (p. 185). Creationists define science "as a collection of facts, [but] evaluate it in terms of its moral and political implications" (p. 189). They are advancing a moral position and selectively employ rhetorical forms which will be useful in achieving this objective.

It may be possible to obtain a detailed picture of this moral position from the creationists' monographs. Thus, the final research question is, Does the creationist literature reveal a more generalized social and moral ideology?

Summary

The view of ideology taken in this chapter is that of a repertoire of meanings and values which are used selectively to advance the interests of a group. The research questions are
designed to help reveal what the meanings are which constitute the creationists' ideology, and what interests might generate these meanings. The complete list of research questions is:

1. What do creationists believe evolution is?
2. What do creationists believe science is?
3. What do creationists believe is the best way of gaining knowledge?
4. Are there congruences between the social organization of creationism and the scientific beliefs of creationists which indicate hidden or unacknowledged interests?
5. Is the creationists' theory of knowledge indicative of some social ideology?
6. Can we find similar historical indicators of this ideology?
7. Does the creationist literature reveal a more generalized social and moral ideology?

With this theoretical orientation established, we will now examine some important antecedents of the creationist movement.
CHAPTER III

THE GENESIS AND EVOLUTION OF CREATIONISM

Creationism has its roots in Protestant fundamentalism, which in turn can be traced to movements which predate the rise of fundamentalism in the latter part of the 19th-century. This chapter is a narrative account of the beginnings of these movements and of the forms which they took, culminating in the fundamentalist movement and the subject of chapter 4—the modern creationist movement. This chapter is divided into historical periods in which these movements and the ideas associated with them were prominent. The first of these periods was characterized by conspiracy theories.

Early Conspiracy Theories: The Post-Revolutionary United States

I shall use the term "conspiracy theory" to refer to the positing, often with scant empirical basis, of the existence of a secret, well-orchestrated plot of a highly integrated group of individuals, with the intent of subverting the culture and/or the legitimate government of a "free" nation, often the United States. A conspiracy theory usually takes the form of a "revelation" of the heretofore secret conspiracy, and carries a moral connotation in that the hearers are obliged to resist the conspiracy. Senator Joe McCarthy's assertion in the 1950's that communists had infiltrated the United States' government is a well known example of a conspiracy theory. There are close parallels between the modern
creationists' images of science and evolutionary theory and the conspiracy theories of some early residents of the United States.

Probably the earliest major conspiracy theory in the United States was propagated by the old New England establishment in the late 18th century. According to Lipset and Raab, the merchants of the Atlantic seaboard cities were feeling a threat to their power from farmers expanding into the frontier (1978, p. 34). Moreover, they were becoming uneasy over the rise of Jeffersonian democracy and the recent revolution in France (Hofstadter, 1965, p. 10). With much of the world posing a threat to the life-style of this old New England establishment, its members found it easy to believe that a conspiracy was afoot.

This "conspiracy" was provided by Scottish scientist John Robison when he published in 1797 *Proofs of a Conspiracy Against All the Religions and Governments of Europe, Carried on in the Secret Meetings of Free Masons, Illuminati, and Reading Societies*. Robison's conspiracy theory was directed against Illuminism which did indeed exist at that time as a variant of Masonry. It had been founded by a professor of law, Adam Weishaupt, at the University of Ingolstadt, Bavaria in 1776. The Society's program seemed to be a combination of anti-clerical sentiment and the spread of humanitarian rationalism (Hofstadter, 1965, p. 10). The elector of Bavaria suppressed the movement in 1785 (Palmer, 1964, p. 429-430) but the conspiracy theory directed against it has become the exemplar of today's conspiracy theories propounded by creationists against today's humanism.
Robison insisted that the aim of the Illuminati was nothing less than the subversion of Western civilization and its most sacred institutions.

He saw it as a libertine, anti-Christian movement, given to the corruption of women, the cultivation of sensual pleasures, and the violation of property rights. (Hofstadter, 1965, p. 11)

Members of the old New England establishment at the end of the Eighteenth century saw their compact and conservative world changing before their eyes and felt the agrarian challenge to their economic and social hegemony, yet could not articulate a coherent reason why their life-style should be threatened. A secret conspiracy was an attractive answer to their questions concerning the cause of their plight, and they embraced this theory with fervor. Jedidiah Morse, a prominent Boston minister, "announced that the world was in the grip of a secret revolutionary conspiracy, engineered by the Order of the Illuminati" (Palmer, 1964, pp. 542-543; Lipset & Raab, 1977, p. 36). Timothy Dwight, then President of Yale University, asked, "shall our sons become the disciples of Voltaire . . . or our daughters the concubines of the Illuminati?" (Hofstadter, 1965, p. 13).

Today, Tim LaHaye's indictment of Secular Humanism sounds much the same as the early indictments of Illuminism.

Indifferent toward parents, they intend to amoralize the young. All they want from us is our taxes, so they can go on living high at our expense, leading our country down the road to a socialist Sodom and Gomorrah. They are so obsessed with the notion that biblical morality is a repressive system that they work untiringly to keep parents from injecting any moral ideals into their children. Believe it or not, their goal is a worldwide generation of young people with a completely amoral (or animal) mentality. (LaHaye, 1981, pp. 143-144)
In both cases, Robison's conspiracy theory of 1797 and that of LaHaye in 1981, the conspirators are supposedly a small, well-organized group with many disciples and with clearly defined goals. These goals are generally the subversion and control of the world's institutions and the propagation of socialism, atheism and immorality. Though nearly two centuries separate the two conspiracy theories, the continuity between them bears noting and illustrates the continuity between post-revolutionary and modern reactions to social instability. In the section which follows we will examine several ideas which arrived in America from Europe during the Nineteenth century and have also contributed to the form of modern creationism.

The Influx of European Ideas: 1800-1920

Although Robison's conspiracy theory passed from public prominence after only a few years, a number of others took its place. Lipset and Raab point out that the United States entered a period of extreme industrialization, especially after the Civil War. Workers were moving from farms to cities, and immigrants were entering the nation at a high rate (1977, p. 72). The stress of this profound social upheaval produced new conspiracy theories and, in addition, right-wing movements against Masons, Catholics, Mormons and Jews. A large nativist organization, the American Protective Association, was founded in 1887 and acted as a channel for the growing power of native Protestant groups (1977, p. 79).

But in this analysis of the social and historical bases of
modern creationism the ideological ferment and unrest of this period
is more immediately significant than is any further elaboration of
conspiracy theories. This furor can largely be traced to certain
ideas which originated in Britain. One is the advent of the
millenarian or dispensational view of history. The view is
essentially an apocalyptic and religious one which took form as
British Millenarianism around 1800. Millenarianism is an
essentially pessimistic view of humankind focusing on the
persecution which "true" Christians have received, and on the wars,
pestilence, and enslavement to which people are subjected. The
pitiful state of the world can, according to millenarianists, be
remedied only by the second coming of Christ.

Against this burden of mankind, John's [the Apostle's] words
have held out the hope of the imminent return of Christ, robed
in power and majesty, whose coming will signal the final and
complete defeat of the enemy and inaugurate a peaceful kingdom
that will last a thousand years. Christian apocalypticism,
focused upon this millenium, is called millenarianism.
(Sandeen, 1970, p. 4)²

British millenarianism was popularized among American
fundamentalists in a modified form by John Darby (Sandeen, 1970,
pp. 60-70). Dispensationalism is the term most often used for this
child of British millenarianism which retained the emphasis on a
corrupt world, the physical return of Christ, and one thousand years
of peace called the millenium. But dispensationalism in America
became a rather complicated exercise in prophecy, adding the
doctrines of a secret "rapture" or taking away by Christ of all true
believers (the "saved"), and of the division of history into
qualitatively different periods called dispensations.³ The
essential features of dispensationalism, however, are those shared with the believers in millenarianism; that the world is corrupted by sinister forces and that Christ will soon return to set things right.

Dispensationalism is a belief which appears to be complementary to the belief in conspiracy theories. A person or group whose conditions of existence would lead toward a belief in shadowy and sinister forces seeking world domination is likely to also be disposed toward a system of theology which emphasizes the corruption of the world by sinister forces and the hope of Christ's return to restore justice and order. These themes were and still are central to the American fundamentalists' attacks on evolutionary theory.

Charles Darwin's theory of organic evolution (1859) was another major idea which the British exported to America in the Nineteenth century, thereby greatly affecting the course of fundamentalism and creationism. But American fundamentalists gave a starkly different reception to evolutionary theory than they had to millenarianism a few years earlier. Darwin did not directly challenge the tenants of orthodox Christianity such as the divinity of Jesus Christ or the triune nature of God. Evolutionary theory was, rather, a challenge to the fundamentalists' literal interpretation of the first chapters of Genesis.

The tenacity with which the early fundamentalists clung to a literal interpretation of the Genesis account of creation can be partly accounted for when one considers the view of reality under which they operated, and Scottish Common Sense Philosophy was a basic part of this world-view. Scottish Philosophy, its shortened
referent, was developed in the mid-17th century by Thomas Reid who formulated it in response to David Hume's questions of whether we can know that the ideas we have about reality actually correspond to that reality. Reid contended that such questions are absurd, that the ability of everyone to comprehend reality is as natural as the ability to breathe air (Marsden, 1980, p. 15).

In addition to Scottish Philosophy's emphasis that everyone can apprehend facts clearly and can know reality directly, it was further assumed that the world is governed by rational laws (laid down by a rational God) which are amenable to investigation. Scottish Philosophy was wed to Baconian science as a way to discover the laws of the universe (Moore, 1979, pp. 194-195). The result of this combination was a view of reality in which objective and verifiable evidence is paramount. To obtain knowledge one carefully and objectively observes and classifies facts apprehended through common sense. From these observations the laws of nature can be induced because the world is in actuality just as it appears to be. Skepticism (Rolbiecki, 1979) and speculative hypotheses (Marsden, 1980, p. 15) are the consequences of abandoning common sense and are to be avoided.5

Darwin's work flew in the face of this perception of reality. To be sure, Darwin did depend on careful observation and classification of what he saw and he was highly inductive, moving from individual observations to more general statements. But Darwin crossed the boundaries of the early fundamentalists's epistemological world-view by making speculations concerning phenomena which could
not be seen nor touched—which were not verifiable to everyone, and could not be "proven".

The *Origin of Species* represented a new departure in scientific explanation. Facts swarmed its pages in orthodox Baconian proportions . . . Yet the book set forth natural selection, not as a theory for which absolute proof had been obtained, or even might be obtained, but merely as the most probable explanation of the greatest number of facts relating to the origin of species. (Moore, 1979, p. 195)

This speculative component of Darwin's theory is one of the central points on which it is attacked by fundamentalists. Darwin himself foresaw reactions such as this.

Any one whose disposition leads him to attach more weight to unexplained difficulties than to the explanation of a certain number of facts will certainly reject my theory. (Darwin, 1859, p. 482; Moore, 1979, p. 195)

And, as we shall see in later chapters, unexplained difficulties make up a large portion of the creationist critique of evolution.

Darwin thus contributed to a number of interrelated religious and ideological debates between the civil war and the 1920's. American Protestantism was slowly dividing into two basic camps in those days. One camp, often called modernists or liberals, consisted of churches whose clergy were generally more educated, tended not to make rigidly literal interpretations of the Bible, were often post-millennial ("the world is getting better") in outlook, and incorporated Darwin's theory into their theology. The other camp was termed conservative, evangelical, or fundamentalist and its members were often, though not always, less educated, interpreted the Bible literally, had an apocalyptic, premillennial world-view, and reacted vehemently against Darwinism.6 The
question of evolution played a key role in this religious division and has affected a dramatic change in subsequent religious thought. Before Darwin, American theologians had always been able to square religion with Baconian and Newtonian science. Science was viewed as "thinking God's thoughts after Him." But with the advent of Darwin's theory they were forced to adopt one of two approaches; that science and religion deal with two different realities, a material reality and a spiritual reality, or that Darwin is a heretic (Marsden, 1980, pp. 20-21). The fundamentalists chose the latter.

Although this section has dealt mostly with religious and epistemological debates which took place among Protestants from the mid-Nineteenth century up to the 1920's, the conspiracy theories were, as I have mentioned, still prevalent along with numerous right-wing groups. The issues involved began in the early 1900's to take on a distinctive rural vs. urban flavor. The Populist party for instance, active in the Midwest and the rural South, focused most of its attacks on banks, railroads, and monopolies, the sources of urban threat to the rural agrarian way of life (Lipset & Raab, 1977, p. 97). This rural vs. urban theme has been chosen by some authors (Niebuhr, 1929; McLoughlin, 1967) as a characterization of the major fundamentalist conflicts which took place in the 1920's.

The Scopes Era: 1920's

While the late Eighteenth and early Nineteenth centuries were characterized by the rise of conspiracy theories and the rest of the
Nineteenth century by religious and epistemological debates, the
1920's were a period of vigorous political action by right-wing
political and religious groups. While the Ku Klux Klan practiced
physically violent action the fundamentalists became highly visible
to the general public with active verbal and legal confrontation of
modernists. It is no accident that the Klan and fundamentalism both
became items of notoriety during the 1920's. This is not
necessary because the two movements are interrelated but because
they are two negative reactions to the same situation. World War I
had caused general social upheaval in America and had raised
interest among dispensationalists concerning the shape of the future
(Sandeen, 1970, p. 233). Large scale changes had been occurring
during the first twenty years of this century with an increase in
large industry, continued urban growth, and immigration of Catholics
and Jews from Europe (Lipset & Raab, 1977, p. 103). With all of
these changes threatening their established, conservative way of
life, members of right-wing groups in general mobilized "the last
desperate protest of a nineteenth-century Protestantism in the
course of eclipse." (Lipset & Raab, 1977, p. 110). While the Klan
protested with violence, the fundamentalists used rhetoric,
legislation, and political organization.

Just which faction, the evolutionists or the fundamentalists,
was more responsible for the spectacle at Dayton, Tennessee is hard
to say. By this time several states had enacted legislation
forbidding the teaching of evolution in schools, but this
legislation may have been simply symbolic in nature. When he signed
Tennessee's anti-evolution bill into law Governor Austin Peay said that the law was a protest against the teaching of evolution but that no one considered it an active statute (Gatewood, 1969, p. 331). The spirit of the "monkey law" seemed to be a symbolic act of defiance against modern science, the enforcement of which was never intended.

But a group of prominent residents of Dayton set out to test the constitutionality of the anti-evolution law. With the help of the American Civil Liberties Union they convinced John Scopes to stand trial for defying the law. Scopes was probably technically in defiance of the anti-evolution law because he had made assignments from a state-adopted textbook which embraced Darwinian theory (Gatewood, 1969, p. 332). But whether the anti-evolution law was ever intended for enforcement became irrelevant because the fundamentalists took up the gauntlet with vigor, pitting William Jennings Bryan—champion of rural, agrarian fundamentalism—against Clarence Darrow—representing secular, urban America—in what was to be "a duel to the death." (Bryan quoted in Gatewood, 1969, p. 330).

The scenes which took place both in and outside the courtroom at the Scopes trial resembled a carnival with vendors selling hotdogs, Bibles, and evolution tracts (Gatewood, 1969, p. 332), and with Bryan and Darrow reduced to namecalling. John Scopes was ultimately convicted of violating the anti-evolution law and fined $100. The conviction was overturned by the Tennessee Supreme Court but the anti-evolution law remained intact. Fundamentalism and creationism had suffered what seemed to be a permanent setback.
Fundamentalism fell into heavy disrepute following the Scopes trial. The trial had a sobering effect upon many Americans who, disturbed by the moral and intellectual drift of the era, were repelled by the ludicrous spectacle. Rather than bringing solace, it had raised serious questions about attempting legislative and legal solutions to religious and moral problems. Whether justifiable or not, the impression that fundamentalism was allied with bigotry, ignorance, and intolerance was enhanced by the millions of words in newsprint and radio broadcasts emanating from Dayton. (Gatewood, 1969, p. 334)

The years immediately following 1925 were probably fundamentalism's noisiest, though, while it continued to exist as a religious and social phenomenon, the visibility of fundamentalism did decline thereafter. It was up to more strictly political right-wing movements to fight liberalism during the middle years of the twentieth-century.

The Movement Retrenches: The mid-20th-century

Some leaders tried to keep the creation/evolution and fundamentalist/modernist debates active and did succeed in prolonging them for a number of years. But fundamentalism eventually lost the headlines and most of its public intensity. The depression, the reappearance of the prohibition issue, the untimely death of William Jennings Bryan immediately after the Scopes trial and the spread of "knowledge" have been suggested as contributors to the decline of fundamentalism (Furniss, 1963, pp. 177-178).

But the years between 1925 and the 1960's were by no means marked by the advancement of liberal causes. Right-wing movements were still visible and active, but their main concern was the threat of communism rather than of evolution. Hofstadter's study of the
"paranoid style" centers its analysis largely on this era. The McCarthyism of the 1950's and the John Birch society, created in 1958, probably best exemplify the paranoid style. The anti-liberalism and anti-intellectualism of these political movements have elicited a number of works equating the political climate of the era with fundamentalism (Marsden, 1980, p. 199). There are numerous examples of fundamentalists professing political views which are typically associated with "McCarthytites" and "Birchers". By way of example, the American Council of Christian Laymen in 1953 published Communist-Socialist Propaganda in American Schools in which the author lays out a well developed conspiracy theory—that public schools are undermining American civilization by surreptitiously teaching communism to children (Kaub, 1953). Another example is the Rev. Daniel C. Fore, who as late as 1981 stated that much of the material he uses to fight liberal ideas comes from "one of the best research organizations in the world"—The John Birch Society (Klein, 1981).

Political manifestations of right-wing sentiments during this period superseded religious manifestations. Although fundamentalism was by no means dead, it was expected never again to become a powerful force in America.

And so it was that fundamentalism, while easily recognizable and still a source of occasional strife in the denominations, altered its appearance after the period of its greatest activity and precipitously lost its strength. It remains today not by any means extinguished but unable to capture the headlines. The men and women who are concerned for the cause of intellectual freedom in midcentury America are aroused by other threats than those represented by the stragglers of the once potent fundamentalist movement. (Furniss, 1963, p. 181)
These words, penned shortly after mid-century, typified the opinion of many who thought fundamentalism as a viable social movement had long since been laid to rest. The world of the 1950's and early 1960's was certainly different from the world of 1925 and conditions were not conducive at that time to a highly visible conservative religious movement. But in the very year in which Furniss published this eulogy, events were occurring which would eventually bring fundamentalism to public prominence again in the form of modern creationism.
CHAPTER IV

THE SOCIAL ORGANIZATION OF MODERN CREATIONISM

The Creationist Movement's Political Platform

When the United States Supreme Court ruled (Abington School District v. Schempp, 1963) that it is unconstitutional to force nonbelieving children to read prayers in school, fundamentalism received what could be thought of as a significant blow. But this ruling also provided the impetus for the main political position of the modern creationist movement. This position was articulated by Nell Seagraves and Jean Sumrall shortly after the Supreme Court decision (Nelkin, 1982, p. 107). Their argument was that if it is unconstitutional to use public schools to teach the existence of God it is also unconstitutional to teach the absence of God. This argument has remained essentially unchanged for nineteen years and is now commonly referred to as the "equal time argument".

What we are advocating . . . is the introduction into the science classrooms of scientific data that are currently being excluded, namely, scientific data which conflict with the evolutionary theories of origins and which are needed for the critical evaluation of evolutionary theories as science. And in conjunction with this we are advocating the introduction into science textbooks and classrooms of scientific data which support the alternative explanation of origins, namely, intelligent, purposeful design and special creation. (Kofahl, no date)

The essence of the creationists' equal time argument is that since public schools cannot favor conservative Protestantism, neither can they favor its negation, the basis of which they see as the theory
of evolution. While most people interpreted the Supreme Court decision to mean "no prayer" in public schools, the creationists take it to mean also "no evolution" without equal treatment for creationism.

The creationists' argument that evolution should not receive preferential treatment in public schools depends on their assertion that evolutionary theory is essentially a religious position while creationism is scientifically valid. The resulting debate between evolutionary thinkers and creationists contains two arguments which are leveled in identical manner by each side against the other. Creationists and evolutionists each accuse the other side of being both religious and unscientific. Nelkin gives a synopsis of the creationist argument:

Creation theory is as likely a scientific hypothesis as evolution . . . . Evolutionists, while claiming to be scientific, confuse theory and fact. And it is unscientific to present evolution as a self-evident truth when it is based on unproven a priori faith in a chain of natural causes. Based on circumstantial evidence, evolution theory is not useful as a basis for prediction. It is rather, "a hallowed religious dogma that must be defended by censorship of contrary arguments." (Nelkin, 1982, p. 192)

Nelkin's synopsis of the evolutionist argument is remarkably similar:

Creationism is a "gross perversion of scientific theory." Scientific theory is derived from a vast mass of data and hypotheses, consistently analyzed; creation theory is "Godgiven and unquestioned," based on an a priori commitment to a six-day creation. Creationists ignore the interplay between fact and theory, eagerly searching for facts to buttress their beliefs. Creationism cannot be submitted to independent testing and has no predictive value, for it is a belief system that must be accepted on faith. (Nelkin, 1982, p. 192)

In the above quotes each party is accused by the other of being unscientific and of being based on a priori religious assumptions.
Since creationists base their view on the first chapters of Genesis it is quite apparent that their view is partly religious. But on what basis do creationists say that evolutionary theory is religious? This is where the earlier conspiracy theories become important to modern creationism. Recall that in these early theories the proponents expressed fears that a shadowy and well organized group of conspirators was set on world domination and on subverting what the conspiracy theorists saw as American and/or Christian values. A common conspiracy theory of today, and one which creationists have embraced, views Secular Humanism as a religion which is antithetical to Christianity and which is being propagated by public school educators, certain government officials, and evolutionary scientists.

The established religion in American schools is known as Secular Humanism. Its missionaries are working over your children everyday. Based upon the Humanist Manifesto it denies the existence of a creator, urges abolition of national sovereignty, and embraces sexual license, abortions, and even euthanasia. (Huck, 1980)

According to this conspiracy theory the ultimate goal of the Secular Humanists is identical to that of the Illuminati, Masons, and communists of earlier conspiracy theories—world domination. Susan Huck calls them, "the would-be masters of the New World Order." (Huck, 1980).

Proponents of this new conspiracy theory see Secular Humanism pervading every aspect of American life, from television to liberal Protestantism.

All those who pioneered the entertainment industry were not humanists. Some were patriotic, some saw it as a means of
making money, and others aspired to fame or power. But the humanists saw it as a tool. If they couldn't buy a studio or station, they would work in the industry. I have no doubt the high priests of humanism taught their young disciples that the entertainment fields were to be prominent on their vocational priority list—along with journalism, school-teaching, law, government, publishing, the arts, and even the liberal clergy of both Protestant and Catholic churches. If that was their practice in the first part of the twentieth century, it is no wonder they have gained a virtual stranglehold on most of those fields today. (LaHaye, 1980, pp. 162-163)

The significance of this conspiracy theory for this investigation is that evolutionary theory is seen by creationists as a tool of Secular Humanism. Among "Humanism's Five Unscientific Beliefs" LaHaye names evolution. He states that, "The biggest hoax of the nineteenth and twentieth centuries is that evolution is a scientific fact." (LaHaye, 1980, p. 109). Evolutionary theory, to the creationist, is a hoax which is necessary to further the cause of Secular Humanism by denying the existence of God. Henry Morris, in an early work on creationism, asserted, "the atheistic and satanic character of the doctrine [of evolution] is evidenced in the many evil social doctrines it has spawned." (Morris, 1951, p. 32-33). Among these doctrines, according to Morris, are Marxism, fascism, Freudian and behavioral psychology, and existentialism. All of these systems of thought and many others are aligned with evolutionary theory, say the creationists, to undermine the "Christian consensus of the Reformation", by which is generally meant conservative Protestantism and what they see as traditional American values.²

The basic features of the creationist political argument then are that (1) Secular Humanism is an atheistic religion bent on world
domination, (2) evolutionary theory is part of this religion, (3) since Christianity cannot receive preferential treatment in public schools neither should Secular Humanism, and (4) their respective accounts of human origins should, therefore, receive equal treatment in public schools. This is, in brief, the manifest strategy of the creationist movement. This strategy has been put into action via some highly successful political tactics.

Political Tactics

One tactic used by creationists is to test the issue of equal time in court and rely heavily on public support. William Broad, referring to the 2 to 6 March, 1981 "Scopes II" trial in California, says that the creationists benefited greatly from the attention they received.

Possibly their most significant gain was attention from the press. The media blitz alerted the wider fundamentalist community to the evolution issue in general, as evidenced by the flood of phone calls, letters, and donations that Turner says his clients [Kelley Seagraves and the Creation Science Research Center] have received. (Broad, 1981)

Broad goes on to state that creationists are becoming more intellectually astute even as grass-roots support is increasing.

Not only philosophical insight is growing, but also popular support across the nation in the form of the rising conservative ethos. Last year [1980], Ronald Reagan told a meeting of evangelical Christians in Dallas that "if evolution is taught in the public schools, then the biblical story of creation should also be taught. (Broad, 1981)

It is little wonder that creationists have enough power to influence local school boards and state legislatures when those who planned the Republican presidential campaign deemed the fundamentalist vote
important enough to actively court in 1980.

The first tactic, using popular public support to advance their programs, accounts for much of the political power of creationists. Another tactic, that of attempting to infiltrate the ranks of science while maintaining their religious beliefs, is a means by which creationists attempt to gain such broad popular support. If a belief can be accepted as both religiously and scientifically valid people in general, it would seem, are much more likely to accept it. This tactic amounts to using scientific authority to legitimate the creationists' religious beliefs. Many creationists, and many of their supporters, are in highly technical fields (Nelkin, 1982, pp. 167-170) and thus have a great deal of respect for science if not for evolutionary theory. Creationists can gain the support of those with such respect for science by emphasizing that they are scientists, not theologians.

. . . creationist confrontations are more like debates within professional societies. Indeed, creationists try to present their views at the annual meetings of professional organizations such as the National Association of Biology Teachers . . . . For creationists argue that Genesis is not religious dogma but an alternative scientific hypothesis capable of evaluation by scientific procedures. They present themselves not as believers but as scientists engaged in scholarly debate about the methodological validity of two scientific theories. (Nelkin, 1982, p. 72, 73)

People who have grown up being taught by churches and parents that the world was created by God, yet who have seen the wonders of science and technology, both knowledge systems which effectively leave out God, probably experience a measure of dissonance in their beliefs. But if creationism can be thought of as scientifically
valid this dissonance largely disappears. Dorothy Nelkin describes one active creationist.

During his college training at Rice, he accepted evolution theory despite his religious upbringing. But during his graduate years, he began to read the Bible and to take a more active role in Christian affairs. (Nelkin, 1982, p. 85)

This man, Henry Morris, eventually eschewed evolutionary theory and is now head of the Institute for Creation Research. Other creationists too stress that they once accepted evolution but have since seen the reasonableness of creationism.

Dr. Parker earned his doctorate in biology . . . He is a former evolutionist who now firmly believes that the scientific facts better support creation. (Creation-Life Publishers Spring 1981 Catalog, p. 2)

Such statements are designed to provide convincing testimony to fundamentalists and others who are waveriing between belief in evolution and creation. The scientific creationists are stressing that they are still scientists but that they believe creation is more valid scientifically than is evolution.

With this stress on creation as scientifically valid the creationists have added a new dimension to their movement, one which characterizes this phase of their history. They are attempting to infiltrate and undermine the cognitive authority of the scientific establishment which they believe threatens the beliefs of their children in the public schools. Public schools are the places in which they perceive that Secular Humanism is most actively at work on children, they can influence public schools a great deal through popular support, and they can gain a great deal of popular support by helping people to reconcile their loyalties to early religious
training with their respect for science and technology.

Creationist Individuals and Groups

We now move from the political platform of the creationist movement to those groups who actively carry on the business of creationism. The scientific creationists generally work out of a bona fide creationist organization. There are a number of these organizations producing journals, books, and newsletters dealing with creationism and evolution. These creationist organizations often—though not in all cases—require that full members have at least a master's degree in some field of the natural sciences and subscribe to a statement of faith. Typical is that of the Creation Research Society, excerpted here from their application form.

1. The Bible is the written Word of God, and because we believe it to be inspired throughout, all of its assertions are historically and scientifically true in all of the original autographs. To the student of nature, this means that the account of origins in Genesis is a factual presentation of simple historical truths.

2. All basic types of living things, including man, were made by direct creative acts of God during Creation Week as described in Genesis. Whatever biological changes have occurred since Creation have accomplished only changes within the original created kinds.

3. The great Flood described in Genesis, commonly referred to as the Noachian Deluge, was an historical event, worldwide in its extent and effect.

4. Finally, we are an organization of Christian men and women of science, who accept Jesus Christ as our Lord and Savior. The account of the special creation of Adam and Eve as one man and one woman, and their subsequent Fall into sin, is the basis for our belief in the necessity of a Savior for all mankind. Therefore, salvation can come only thru accepting Jesus Christ as our Savior. (from "Application Form for the Creation Research Society")

Two creationist organizations which stand out are the
Creation-Science Research Center and the Institute for Creation Research, both of San Diego, California. The Creation-Science Research Center concentrates largely on political and legal action. Nell Seagraves and Jean Sumrall (see page 26) are associated with this organization, and Kelly Seagraves, co-founder of the CSRC, was plaintiff in the California "Scopes II" case (Gwynne & Lubenow & Friendly & Carey, 1981). The Institute for Creation Research, on the other hand, concentrates more on publishing and on refutation of evolutionary theory. The major spokesmen of the movement such as Henry Morris and Duane Gish are staff members of the ICR, which is associated with Christian Heritage College.

This association between the Institute for Creation Research and Christian Heritage College leads us to the links of creationism with other movements such as fundamentalism and the Moral Majority. Creationism is closely linked with Protestant fundamentalism, a group which generally includes Baptists, 6 Pentecostal and Charismatic groups, a number of independent churches, and some conservative Lutherans, Presbyterians and Methodists. These groups are unified mostly by their adherence to orthodox Protestant doctrine, specifically; (1) literal interpretation and inerrancy of scriptures—the doctrine upon which creationism is based, (2) the imminent, physical second coming of Jesus Christ—connected with dispensationalism, (3) Christ's virgin birth, (4) Christ's death as substitutionary atonement for humanity's sins—to be accepted on an individual basis, and (5) Christ's physical resurrection from death. These Protestant fundamentalists have provided the major
impetus for the creationist movement.

Creationists also receive some support from other conservative religious groups, many of which also have apocalyptic elements in their world-view. Included in this classification are Jehovah's Witnesses, Mormons, Seventh-Day Adventists, and a host of less visible groups as well as the fundamentalists. Nelkin used this broader conception of fundamentalism in her analysis of textbook watchers (1982).

In her analysis Nelkin noted that at the same time creationism was becoming a national movement, the membership in these apocalyptic groups was on the rise while membership in mainline Protestant churches was leveling off or declining (1982, pp. 59-61). Membership data for this period is presented in table 1.

The first five denominations in table 1 are mainline Protestant denominations. Note that from 1963 to 1978 membership in these denominations has either declined steadily or has peaked around 1968 and declined thereafter. The six remaining denominations in table 1 are either fundamentalists or groups which have similar social and political orientations to those of fundamentalists. Membership among these groups has without exception increased steadily, and sometimes dramatically, during the same period. This table indicates that since the modern creationist movement took shape and began gaining power in 1963 there has been a decline in membership of mainline Protestant denominations while fundamentalist-type groups have flourished. These trends tend to put the creationist movement within a religious frame of reference; the same types of
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<td>Lutheran Church in America</td>
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<td>2,576,105</td>
<td>2,465,584</td>
<td>2,377,235</td>
</tr>
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<td>Episcopal Church</td>
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<td>3,373,890</td>
<td>2,917,165</td>
<td>2,815,359</td>
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<td>United Presbyterian Church</td>
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<td>3,222,663</td>
<td>2,808,942</td>
<td>2,520,367</td>
</tr>
<tr>
<td>United Church of Christ</td>
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<td>2,032,648</td>
<td>1,867,818</td>
<td>1,785,652</td>
</tr>
<tr>
<td>United Methodist Church</td>
<td>10,234,986</td>
<td>10,990,720</td>
<td>10,192,265</td>
<td>9,731,779</td>
</tr>
<tr>
<td>Church of Jesus Christ of Latter-Day Saints (Mormon)</td>
<td>1,787,896</td>
<td>1,930,811</td>
<td>2,208,045</td>
<td>2,952,000</td>
</tr>
<tr>
<td>Assemblies of God</td>
<td>543,003</td>
<td>595,231</td>
<td>1,078,332</td>
<td>1,293,394</td>
</tr>
<tr>
<td>Jehovah's Witnesses</td>
<td>308,370</td>
<td>333,672</td>
<td>472,662</td>
<td>519,218</td>
</tr>
<tr>
<td>Seventh-Day Adventists</td>
<td>346,286</td>
<td>396,097</td>
<td>464,276</td>
<td>535,705</td>
</tr>
<tr>
<td>United Pentecostal Church</td>
<td>150,000</td>
<td>225,000</td>
<td>270,000</td>
<td>420,000</td>
</tr>
<tr>
<td>Southern Baptist Convention</td>
<td>10,393,039</td>
<td>11,330,481</td>
<td>12,295,400</td>
<td>13,191,394</td>
</tr>
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(Compiled from *Yearbook of American and Canadian Churches*. Published annually by Abingdon for the National Council of Churches of Christ.)

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phenomena which account for the recent popularity of fundamentalist-type groups might also account for the popularity of creationism.

The rise of creationism coinciding with the rise in membership of fundamentalist groups strongly indicates a link between creationism and specific types of religion. There are numerous formal links between creationists, religious fundamentalists and even political groups such as the Moral Majority Inc. The Moral Majority has many constituents in common with creationist organizations and the two movements' aims often converge. The Moral Majority is in agreement with the creationists' equal time argument and it advocates related conservative issues such as prayer in public schools, censorship of certain textbooks, the "traditional" (male-dominated, nuclear) family, a strong military force, and capital punishment. At the same time the Moral Majority opposes what its leaders view as aspects of Secular Humanism such as the Equal Rights Amendment, sex education in public schools, pornography, abortion, and homosexuality (Chandler, 1981). The Moral Majority contains a significant number of conservative Jews, Catholics, Mormons, and some members of mainline Protestant denominations. It is, though, basically a Protestant fundamentalist oriented political group.

Some actual social links between the Moral Majority, fundamentalist religious groups, and creationists are shown in figure 1, compiled from Nelkin (1982, pp. 77-87), Chandler (1981), and LaHaye, (1980, pp. 200-205). Formal organizational links such
Figure 1. Formal and informal relationships in the religious right.
as shared personnel are depicted by solid lines. Informal links, such as shared political orientations, are depicted by broken lines. Beginning at the right side of figure 1 we see that the Moral Majority is informally linked to a number of "new right" political groups such as the National Conservative Political Action Committee and the Committee for Survival of a Free Congress. There are links also between the Moral Majority and other "religious right" groups such as the Religious Roundtable and the 700 Club. All of these groups share a common political approach with the Moral Majority. Moral Majority Inc. is, of course, formally linked with its founder and director Jerry Falwell and, through him, to the entire Falwell religious complex.

Another formal link is that between the Moral Majority and Tim LaHaye, a co-founder of the Moral Majority along with Jerry Falwell. LaHaye is also pastor of Scott Memorial Baptist Church and is founder and chancellor of Christian Heritage College (as is common among fundamentalist colleges, Christian Heritage College was sponsored in its infancy by Scott Memorial Baptist Church). Now we are on the left side of figure 1 where the creationist groups fit into the sociometric pattern. A number of schisms among creationist groups which took place between 1963 and 1972 were instrumental in bringing about the formation of the Institute for Creation Research as a research branch of Christian Heritage College. Henry Morris, Duane Gish, and most of the other leaders in the scientific creationist movement operate under the auspices of the ICR and, by extension, Christian Heritage College. Thus we see that the
scientific creationists have formal social links through Christian Heritage College and Tim LaHaye to the Moral Majority. The Moral Majority links creationists informally to a host of other right-wing political groups.

Summary

One set of findings in this investigation is descriptive. I want to know what creationists think about science, about evolution, and about creationism. I want to know what they base their knowledge of the world upon. A second purpose is analytical. What is the significance of the creationists' beliefs? In chapter 2 I suggested some important questions. Are there congruences between the social organization of creationism and the scientific beliefs of the creationists which indicate hidden interests? Is the creationists' theory of knowledge indicative of some social ideology? And are there historical indicators of this ideology as well? Does the creationists' literature reveal a more general social and moral ideology?

In chapters 3 and 4, historical and social organizational information on the creationist movement was provided in order to give a basis for addressing these questions. In chapter 3 we saw that creationism is historically linked with fundamentalism, conspiracy theories, Scottish Philosophy and Baconian Science, an apocalyptic world-view, and right-wing politics. In chapter 4 social organizational links which creationists have with right-wing religious and political groups were noted. As we move into the
findings and analysis of this study, mindfulness of the history and social organization of the creationist movement will be important in order to put the creationists' scientific beliefs in their proper context and to answer adequately those questions concerning the creationists' ideology.
CHAPTER V

FINDINGS AND ANALYSIS

In this chapter each of the first six research questions will be dealt with in their order. The first three questions: What do creationists believe evolution is?, What do they believe science is?, and What is their theory of knowledge?, are answered through qualitative content analysis of the fifteen creationist monographs which constitute the sample. Along with the analysis, a number of representative quotations from the sample are provided to enhance the point being presented and to communicate a sense of the language and rhetorical tone used by the creationists.

While the sample was being collected it became apparent that there are two major types of creationists producing relevant literature. The first type is those ministers who have written critical essays on the state of the world. They typically deal with science, evolution and creation within the larger context of a general social commentary. The second type of creationist is the familiar scientific creationist. Scientific creationists often have advanced degrees in one of the natural sciences and devote their books entirely to the creation/evolution controversy. The statements of these two groups will be compared throughout this discussion in order to point out differences and similarities in the beliefs of the two groups. While only findings and analysis of the data are presented in this chapter, details of the sample and method
of data collection are presented in Appendix A.

The remaining three research questions are more analytic in nature. They were first mentioned at the end of chapter 2: Are there congruences between the social organization of creationism and the creationists' scientific beliefs which indicate hidden interests?, Is the creationists' theory of knowledge indicative of some social ideology?, and Are there historical indicators of this ideology as well? These questions will be addressed through reference not only to the analysis of the creationists' beliefs, but to chapters 3 and 4, dealing with the history and social organization of creationism, as well.

Images of Evolution

For the purpose of analysis the beliefs of each group of creationists about evolution, science, and the basis of knowledge will be treated separately. Following are analyses of first the ministers', then the scientific creationists', beliefs concerning evolution.

The Ministers

The ministers, again, generally comment on creation/evolution related topics in the process of producing general social criticism. In their literature they have a great deal to say about evolution.
Evolution is a Conspiracy

The ministers express the idea in their literature that evolution is part of a massive conspiracy against which they are battling. Consider the following powerfully worded passages.

The grand myth of our generation is evolution. The big lie of our modern era is evolution. I read the lie in the textbooks taught our children and sethe on the inside. The farfetched hypothesis is always presented as proven fact. (Criswell, 1969, p. 137)

Today the educational takeover by humanists makes it all but impossible for those untaught in the Bible to distinguish between true science and humanistic theory, for all are called scientific by the humanists. That is one of the main reasons they expelled the Bible from the public schools in 1957. (LaHaye, 1980, p. 106)

Criswell and LaHaye, both ministers, perceive that evolution and humanism are parts of a conspiracy being perpetrated primarily through the education of children. But evolution also, according to the ministers, is involved with other institutions.

Satan took [Kant's, Hegel's, Kierkegaard's, Marx's, Freud's, and Darwin's] concepts and wired the underlying frame of reference for our present historical, educational, philosophical, sociological, psychological, religious, economic, and political outlook. (Lindsey, 1972, p. 85)

Evolutionary Thought "Captures" the Minds of the Unwary

Given that the ministers believe evolution is part of a conspiracy which has taken over virtually every important institution, how do they explain the mechanism by which this phenomenon occurs? Their answer takes the form of a crude mentalism. People are, according to the ministers, either the
victims of brainwashing and improper education (children) or are searching for any system of thought which will allow them to ignore God and the consequences of disobeying religious precepts (humanists and evolutionists). The following quote is illustrative of the ministers' account of the spread of evolutionary thought.

You and I and our children have been ingeniously conditioned to think in terms that are contrary to biblical principles and truths in all of these areas—and without our even realizing it. (Lindsey, 1972, pp. 84-85)

The ministers, then, view evolution as a conspiratorial system of thought which pervades many modern institutions and is spread by "conditioning", usually through education. But what of the actual makeup of evolutionary thought?

Evolution Is Based on Ignorance, Superstition and Fraud

One major complaint which the ministers level against evolution is their contention that it is false and fraudulent. Consider the following quote from LaHaye:

... the Industrial Revolution was shaped predominantly by men who believed in God. That is important, because theistic scientists assumed a nature that was designed to follow dependable laws. Atheistic humanists, obsessed with unguided and continual change, would have had us back in the Dark Ages, where they were still attempting to trial and error their theories. (LaHaye, 1980, p. 101)

Evolution Assumes Onward and Upward Progress

Onward and upward genetic progress is a second aspect which the ministers claim is inherent in evolutionary thought and to which they are violently opposed. While creationists are quite content
with progress if by progress one means an increased ability to understand and control the natural world, they say that evolutionists mean quite a different thing by progress. M. R. DeHaan equates evolutionary theory with eugenics.

Evolution, stripped of all its pseudo-scientific claims, all its theoretical evidence, all of its insults to the Bible, is in the end a Satanic attempt to get rid of God, and finally produce a super-race of supermen, who will be gods themselves. (DeHaan, 1962, pp. 68-69)

The idea that everything is evolving to future perfection, which the ministers perceive is part of evolutionary thought, contradicts the creationists' idea that God created a world which was complete and perfect in the beginning. The idea of evolving to future perfection is also at odds with another flaw which the ministers claim is in evolutionary theory.

**Evolution Assumes Randomness and Blind Chance**

This conception is widespread among these ministers as the following passages indicate.

. . . the study of statistics raises the question of whether pure chance could ever produce an ongoing increased complexity. If chance alone operates, why should that which exists (including biological structure) move toward a consistent increase in complexity? Most importantly, no one has yet shown how man could have been brought forth from non-man solely by time plus chance. (Schaeffer, 1976, p. 149-150)

The assumption (by evolutionists) of the spontaneous development of nothing into something and the development of that inert something into the personality of a man is about as reasonable as if an explosion in a printing plant resulted in the twenty-four volumes of the *Encyclopedia Britannica* (Criswell, 1969, p. 141)

Note that Schaeffer and Criswell are not referring to chance as

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random mutations operating within well-established laws of genetics. They are saying that evolution operates on pure chance. They view the evolutionist's idea of chance and randomness in terms of mixing inorganic material in a cement mixer and getting living organisms as a result.

**Evolution is Nothing New**

A final fault which the ministers in the creationist movement find with evolution as they perceive it is that, as Solomon put it, there is nothing new under the sun. Evolution, they say, is not a new and better explanation of the origin of life on earth but an ancient idea. Evolution is simply one side of the old battle between good and evil.

The satanic campaign to discredit the Bible continues to this day. It has continued down through every generation to this present hour. (Falwell, 1980, p. 63)

Since humanists reject a belief in God, they must next explain man's existence independent of God. For this they resurrect one of the oldest religious beliefs of all time: the theory of evolution, which can be traced back to Babylon 2,000 years before Christ. (LaHaye, 1980, p. 60-61)

In making this claim the ministers are saying that evolution is not a new scientific theory which is the best available account of human origins. They are claiming that it is the modern version of a very old religion.

**Summary**

We have examined a few illustrations of the ministers' view of evolutionary theory. They see evolution as a conspiracy which is
part of many aspects and institutions of our daily lives. They see it as based on fraud and ignorance, as assuming constant progress yet invoking pure chance as the mechanism of this progress, and finally, as nothing really new. Ministers within the creationist movement claim that evolution is just another attempt to discredit Christianity.

The Scientific Creationists

Having examined the views which ministers within the creationist movement have of evolutionary theory we now turn to the scientific creationists. Scientific creationists write more directly on the creation/evolution controversy than do the ministers and they often have associations with a bona fide creationist organization and/or hold an advanced degree in some field of the natural sciences.

A close look at the literature produced by the scientific creationists reveals that they say the same kinds of things about evolutionary theory as do the ministers. Following are some examples.

Evolution is a Conspiracy

Just as the creationist ministers saw evolutionary theory as a conspiracy, the scientific creationists claim that evolution is a philosophy or a religion propagated under the guise of science by a unified group of conspirators.

No doubt a large majority of the scientific community embraces the mechanistic materialistic philosophy of Simpson, Huxley, and Monod. Many of these men are highly intelligent, and they have
woven the fabric of evolution theory in an ingenious fashion. They have then combined this evolution theory with humanistic philosophy and have clothed the whole with the term, "science." The product, a non-theistic religion, with evolutionary philosophy as its creed under the guise of "science," is being taught in most public schools, colleges, and universities in the United States. It has become our unofficial state-sanctioned religion. (Gish, 1978, p. 26)

Not only is evolution a conspiratorial philosophy or world view according to the scientific creationists, but it also is, they say, implicated in communism, immorality, racism, and numerous other phenomena which the creationists find distasteful. Scientific creationist Henry Morris's description of the European and American intellectual and political climate around the late 19th century is illustrative.

Although faith in the Bible and creation was still very strong... subversive revolutionary movements were influencing multitudes. Deist philosophers, Unitarian theologians, Illuminist conspirators, Masonic syncretists, and others were all exerting strong influences away from Biblical Christianity and back to paganistic pantheism. the French Revolution had injected its poisons of atheism and immoralism into Europe's bloodstream... Socialism and communism were on the upswing throughout Europe; Marx and Nietzsche were propagating their deadly theories and were acquiring many disciples... All of these people and movements were evolutionists of one breed or another. (H. Morris, 1974, pp. 59-60)

We see here that the scientific creationists' view of evolution is, like that of the ministers, one of a conspiracy which has invaded a number of areas of our lives, from education to politics to philosophy. In the following section we see that the scientific creationists' explanation of the popularity of evolution is also like that of the ministers.

The Evolutionary "Capture of Minds"

Scientific creationist John Moore uses the term "capture of
minds" (1976, p. 82) to describe what the scientific creationists see as the purely cerebral causes of the spread of evolutionary thought. Evolution is seen as a battle for the hearts and minds of people, as pure rhetoric and persuasion.

Actually, at the time that Charles Darwin's book *The Origin of Species* was published the majority of scientists believed in the first origin of all things by special creative acts of the Creator God. As young scientists and leading theologians read Darwin's book, however, they became persuaded to his position. He provided just the type of plausible line of reasoning that made evolution intellectually acceptable. As historians mention in their reports and analyses, many "converts" were made to a belief in the origin of living things separate from acts of God. (Moore, 1976, p. 25)

Most of us, then, have been "captured" in a sense by an ungodly conspiracy of evolutionists according to both the ministers and the scientific creationists.

**Evolution is Based on Ignorance, Superstition or Fraud**

Here again, there is congruence between the views of the ministers and the scientific creationists. Scientific creationists Hill and Custance accuse evolutionists of "gross stupidity", "blindness", and of adherence to "biological dogma".

If the evolutionists themselves express doubts that their case could hold up in court, and even stoop to the deceit of inventing false evidence, what do the real scientists say . . . Just as you would expect, they find the evolutionists guilty of gross stupidity, blindness, and conclusions not supported by any facts, only by figments of their imaginations. (Hill, 1976, p. 38)

But when a theory which is tentative is presented as fact, it no longer serves to inspire questions but rather to predetermine answers. To my mind, this is the present position of evolutionary theory. It has become "fact" and to challenge it is to run the risk of excommunication. In Medieval times, too, excommunication was one of the penalties for challenging the
accepted view of things . . . . This is exactly the position today; ecclesiastical dogma has been replaced by biological dogma which, as dogma, has been detrimental to the truth. (Custance, 1975, p. 75)

By accusing the evolutionists of altering facts and of propagating almost religious dogma symbolically identical to that which the Medieval Church imposed upon early scientists, the scientific creationists are firing back at the scientific establishment the charge which has often been made against creationism—that it is an outmoded dogma which holds up the progress of science.

**Evolution Assumes Progressive Change**

The scientific creationists' assertion that the "biological dogma" of evolution impairs the progress of science leads us to the scientific creationists' agreement with the ministers over a type of progress which they dislike. Scientific creationists also claim that evolution assumes upward progress to a state of perfection.

Entropy is exactly the converse of the principle of evolution, according to which everything is moving upward from primeval chaos to future perfection." (Morris, 1974, p. 17)

**Evolution Assumes Randomness and Blind Chance**

Like their contention that evolution assumes progressive change, the scientific creationists as a group agree with the ministers that evolution also assumes randomness and chance.

What is the possibility that a group of a hundred monkeys banging randomly upon indestructible typewriters could eventually produce the completed works of Shakespeare? . . . . The probability is virtually zero . . . . What is the possibility that the molecules of carbon, nitrogen, oxygen, and hydrogen,
. . . though possessing no intelligence could, by themselves, line up to form the many amino acids of which protein consists and eventually form a single-celled organism? (Hiebert, 1979, pp. 95-96)

The scientific creationists' answer is, of course, no possibility.

Another scientific creationist, Harold Hill, states that by believing such a view, evolutionists:

. . . ignore these basic laws of science the laws of thermo-dynamics and claim that with the passing of time, everything becomes better organized, more highly structured, and in better shape in an accidental sort of way. (Hill, 1976, p. 15)

**Evolution is Nothing New**

The final problem which the ministers find with evolutionary theory was that there is nothing new in the idea; it is simply an old philosophy in scientific clothing. Again we find that the view of the scientific creationists is similar.

Evolution was not "invented" or originated by Charles Darwin. The concept of the common ancestry of all varieties of living things today and in the past from a single cell began in the minds of Greek thinkers many centuries before Darwin. (Moore, 1976, p. 25)

The ancient Egyptians said their god created the Nile river . . . he sent a flood which washed the little white worms out of the mudbank. Lo and behold, they turned into men and women. The ancient Babylonians had a different idea. Their supreme god . . . spat upon the earth he had created. Wherever his spit lit, a man sprang up. Much later, a theologian named Charles Darwin took an extended trip on the good ship Beagle as an amateur naturalist . . . . He theorized that all forms of life were kissing cousins. Every living thing had descended from a common ancestor (Hill, 1976, pp. 1-2)

We are given the impression by both groups of creationists that there has always been truth, which is represented by creationism, and there have been constant attempts to discredit or avoid the
truth. Evolutionary theory and "false" religions the creationists would place in the latter category.

Summary

We can see that generally all of the creationists in the sample, whether they are ministers or scientific creationists, view evolution as a conspiratorial system of thought which is spread through the "capture" of the minds of unbelieving intellectuals, innocent children, and laypersons. Both groups of creationists agree that evolution is a poor example of science because it is based on ignorance and fraud, that it assumes a rise from chaos to perfection through the totally random combination of inanimate matter, and finally that evolutionary ideas have been set in opposition to the "truth" for at least several millennia. Both groups of creationists are homogenous in terms of these beliefs. Outright disagreements on these beliefs are very difficult to find.

Images of Science

We have examined the views of evolution of both the ministers and the scientific creationists and have found them very similar. This congruence of viewpoints does not, however, appear in the approach of these two groups to the essence of science itself.

The Ministers

In contrast to their opinions on evolution, which are both detailed and explicit, the ministers' knowledge of science is
nebulous and downplayed. They either make no attempt to delineate just what science is, or they speak vaguely about "nature" and "facts".

The theory of evolution is based on faith, not fact. By contrast, science is the study of fact. Therefore, evolution is unscientific. (LaHaye, 1980, p. 112)

Science is the knowledge of matter, natural phenomena, and the study of the physical universe. (DeHaan, 1962, p. 16)

But in spite of the lack of systematic discussion by the ministers of the nature of science we can gain insight into the extent of their scientific knowledge by noting those few portions of their discussions on evolution wherein they do touch upon science.

Science is Equated With "Absolute Facts" or "Proof"

One theme which often surfaces among the ministers is that science is equated with absolute facts or proof of some kind, although the source of our knowledge of these proofs or facts they do not make plain. Following are some examples.

Basically nothing is truly scientific unless founded upon absolute fact. Unless substantiated by fact and proven to be a fact, it is only as Paul calls it "science . . . so called." (DeHaan, 1962, pp. 14-15)

. . . theories are not accepted as scientific fact until they can be proven. (LaHaye, 1980, p. 109)

What we need is more proof, more delineation, more observations, and more description of facts. Most evolutionary thinking is entirely speculative and nonscientific. (Criswell, 1969, p. 139)

Aside from telling us that science is composed of "proof" and "facts" we are given little hint by the ministers as to just where and how scientists obtain their scientific knowledge. And in those
few instances in which these ministers offer their own proof of the correctness of an assertion, it has dubious methodological or substantive value. An example is LaHaye's "proof" that socialism is not a guarantee of freedom.

Here is a simple test to prove that socialism has failed to provide the freedom, liberty, and prosperity that its humanist theorists have predicted for 200 years: How many are clamoring to gain citizenship in communist countries? (LaHaye, 1980, p. 124)

Science and Common Sense are Similar

The ministers give expression often to the idea that anything which contradicts common sense or received opinion is unscientific.

Anything that takes eight million lives [abortion] can hardly be called scientific or humane. (LaHaye, 1980, p. 113)

There is the declaration made in Genesis that man was created in God's image. There is in him a moral sensitivity, a spiritual life not found in any other of God's created beings. Does the science of man's nature [presumably one of the social sciences] contradict that? No, all of mankind is conscious of that moral equation. (Criswell, 1969, p. 133)

The ministers seem to have a great deal of awe or respect for science, but they are unwilling or unable to pin themselves down to a comprehensible definition or example of science. Science for these ministers is a vague notion of facts or proof and is often the equivalent of common sense.

The Scientific Creationists

While the ministers have little idea of what science is, the scientific creationists by comparison exhibit a great deal more knowledge of what is involved in science.

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Empirical Methods Are the Basis of Science

One indication of the scientific creationists' relatively greater scientific sophistication is their willingness to offer definitions and examples of what they call science.

... there are many definitions of science. However, the two main aspects of the scientific endeavor are (1) identification and collection of information, plus (2) the essential methods or procedures by which information is gained. (Moore, 1976, p. 11)

Moore's definition of science thus involves the collection of information. In their discussions of the creation/evolution controversy the other scientific creationists freely make reference to empirical methods as the basis of science.

If one allows the whole body of data to speak for itself, without attempting to harmonize it with preconceived ideas, the conclusion that man and dinosaur walked together at the same time and place ... seems inevitable. (J. Morris, 1980, p. 191)

... scientific evidence is now seen to completely shatter any possibility that the visible organic world is the result of evolution. (Hiebert, 1979, p. 145)

... scientific thinking is characterized as being based on direct or indirect observation. Observations are then repeated and repeated until detailed descriptions and classifications of data plus experimentation are possible as means of doublechecking initial observations. (Moore, 1976, p. 19)

The evolutionary hypothesis for the origin of man becomes less and less plausible as more and more evidence becomes available. (Gish, 1978, p. 130)

In these and many other statements the scientific creationists make reference to careful and repeated observation, description, classification, and experimentation as the major constituents of science. Science for the scientific creationists is their conception of the science of Newton and Bacon, whom they often
mention as examples of "true" scientists. Scientific creationists have little taste for abstract theoretical constructs or for major extrapolation from observable data, unless such extrapolation is supported by the scientific creationist's interpretation of the Bible. Most of the cases which the scientific creationists present against evolutionary thought are those in which they believe that evolutionists have strayed from the "true science" of repeatable observations. For instance, it is perfectly acceptable to creationists for one to claim that there is genetic variation within species, a readily observable occurrence. But to claim that genetic variation and mutation result in totally new species greatly disturbs them. They claim that this is not science but metaphysical speculation.

Limited Inferences From Observable Data Are Permissible

Scientific creationists are willing to make some inferences from their observations, however, in a limited way. This usually takes the form of comparing "models" of the origin of life. In this sense also the scientific creationists show a much greater degree of scientific finesse than do the ministers. While some of the ministers may mention models of origins and may say that the creation model is more reasonable they generally come back to revealed authority or common sense as the basis for comparison. Scientific creationists, unlike the ministers, claim to place the burden of demonstrating the worth of creation or evolution primarily on empirical evidence.
What we propose is to take the two models [evolution and creation] in their simplest forms, as outlined above, and to use them on a comparative basis to predict and correlate various types of observable data. Their representative predictions can then be tested against observations. (H. Morris, 1974, p. 83)

Now let us ask the question: "Concerning the origin of flight, which model, the creation model or the evolution model, has greater support from the fossil record?" To us the answer seems obvious. Not a single fact contradicts the predictions of the creation model, but the actual evidence fails miserably to support the predictions of the evolution model. (Gish, 1978, p. 91)

Despite any problems the scientific creationists might have in actually carrying out their comparisons of evolution and creation, they do have at least the rudiments of what is commonly considered scientific thought in their insistence on observation and experimentation and on making and systematically testing some inferences from the data. This is far different from the ministers' epistemology, which essentially claims that "true" science is that which does not contradict common sense or a particular interpretation of the Bible.

**Teleological Arguments Are Valid**

Another common type of inference which the scientific creationists will allow from observation is the teleological argument.

The marvelous discoveries and achievements of science, revealing the complexities and orderly relationships in nature, seemed more and more to confirm the fact of design and therefore the existence of a creator. (H. Morris, 1974)

The creationist sees complex and highly integrated natural structures as powerful evidence of an omniscient and omnipotent First Cause. (Hiebert, 1979, pp. 116-117)
Would it not be reasonable to regard a code, such as the genetic code, as a source of intelligent information sent from a nonhuman intelligence to a biological machine? The biological machine could, like the computer, be reasonably regarded as a machine made by the same intelligence . . . . given the possibility of an intelligence which is the source of the original coding. (Wilder-Smith, 1970, p. 68)

The scientific creationists observe the natural world and see a great deal of order. To have this order and complexity, they reason, there must be a designer. This teleological reasoning and the comparison of "models" of origins are the basic types of inferences which the scientific creationists allow.

In examining the scientific beliefs of the scientific creationists we find them saying that science is based on careful observation and classification as well as experimentation. Evolutionists are castigated by the scientific creationists for claiming as scientific truth certain phenomena which are not directly observable. The scientific creationists do allow certain extrapolations from observable data such as the comparison of the creation and evolution "models" and teleological arguments for the existence of God. Yet one gets the impression when reading creationist arguments that the superiority of the "creation model" is a foregone conclusion and that the teleological argument is almost wholly religious. Why are these extrapolations permissible to the scientific creationists while others are not? The answer may lie in the scientific creationists' theory of knowledge, with which the next research question deals.
Theory of Knowledge

In answering the first two research questions we found that both groups of creationists have extensive and detailed opinions on the subject of evolution and that their views are essentially similar. But concerning beliefs about science, there is a significant difference between the two groups. In this section the third research question: "What is the creationists' theory of knowledge?", will be addressed. Again the two groups will be separated as an aid to analysis.

The Ministers

Authority is the best source of knowledge claim the ministers. They say that they have "unchanging" and "infallible" guidance in matters of science as well as morality and religious practice. The source from which these ministers gain this absolute knowledge is the Bible.

The Bible is unique in its content, for it deals with every subject under heaven, and is the final authority on every subject with which it deals. This makes the Bible the most scientific book under heaven. When the Bible speaks about science, geography, history, geology, chemistry, hygiene, sanitation, medicine, astronomy, physics, physiology, or mathematics, it speaks with the same infallible authority as when it speaks of spiritual matters and salvation. This is a proven fact, overlooked by the average student of the scriptures. (Criswell, 1969, p. 38)

A thorough study of the Bible will show that it is indeed the inerrant Word of the living God. The Bible is absolutely infallible, without error in all matters pertaining to faith and practice, as well as in areas such as geography, science, history, etc. (Falwell, 1980, p. 63)
Man, including science, is not autonomous. He is to take seriously what the Bible teaches about history and about that which it teaches has occurred in the cosmos. (Schaeffer, 1976, pp. 134-135)

Not only do we hear from the ministers that authority is the basis of knowledge, but that science is subordinate to authority. When ministers speak of "true" science they refer to those statements by scientists which can be accommodated to the literal interpretation which fundamentalists make of the Bible. Evolutionary theory, because it does not lend itself to a literal interpretation of the early chapters of Genesis, is simply not science according to the ministers.

The Scientific Creationists

For the scientific creationists the best way of knowing is through a combination of authority and observation. As often as they mention the need for systematic observations, the scientific creationists insist that those observations will not conflict with the authoritative revelation found in the Bible.

Thousands of men of science, as well as laymen, have found that God's word, and God's world are, after all, in complete agreement. (Hiebert, 1979, p. 151)

... the Bible contains many references to the natural environment and to natural processes ... wherever the biblical writers touched on subject areas studied today by scientists they were amazingly accurate. There are no scientific errors or mistakes in the Bible. (Moore, 1976, p. 9)

Perhaps the most eloquent summary of embryonic development was written over 3,000 years ago by the Psalmist David (Psalm 139). He talks about his "unformed substance," and that's just how we all begin—as unformed substance. Then he talks about being "knit together" in his mother's womb, and that's similar to what we observe in embryonic development. (Parker, 1980, p. 31)
Scientific creationists are clearly of the opinion that the observations which a scientist makes in the world have been and will continue to be in accord with the Bible, which scientific creationists, like the ministers, say is authoritative revelation from God. They stress that science is based on observation and classification of facts—on empirical methods of investigation. A kind of empirical authoritarianism appears to be the scientific creationists' view of science. This is added to another type of authority which constitutes their theory of knowledge, that authority which they say is revealed from God. These two sources of authority never disagree, say the scientific creationists.

If the scientific creationists insist so strongly on the congruence between revelation and the observation of readily visible phenomena, do they say the same about those few extrapolations which they will allow from observable phenomena? That is, are those extrapolations which are allowable to the scientific creationists those which can be found in their literal interpretation of the Bible? We have seen the scientific creationists' teleological arguments, inferring a designer from the design which they perceive in the natural world. This is an inference from the scientific creationists' interpretation of the Bible that an anthropomorphic God designed and created the universe. John Morris makes another extrapolation. He says that the geologic column indicates a world-wide flood, an event which he finds in the Bible also.

... the major part of the entire geologic column can easily be interpreted in light of continued deposition associated with a
major water catastrophe. The obvious testimony of scripture yields the same conclusion. The Bible speaks of a year-long water catastrophe that covered the highest mountains. (J. Morris, 1980, p. 178)

It appears that the scientific creationists do indeed allow inferences from observations on the basis of whether those inferences are in accord with their interpretation of the Bible. This procedure is logically consistent with the scientific creationists' theory of knowledge which states that revelation and observations will always coincide.

Which source of knowledge is primary for the scientific creationists is not made explicit in their literature. They prefer the argument that the natural world ("God's world") and revelation ("God's Word") are objectively existing sources of knowledge between which we have found no conflict and thus do not expect to find any conflict in the future. But when the argument is summed up as Moore (1976) did, "There are no scientific errors or mistakes in the Bible" (p. 9), the clear implication is that science (observation and classification) is important but authority (revelation) is primary.

Congruence Between Social Organization and Beliefs About Science.

The findings already presented in this investigation are central to discussion of this research question, and thus, they bear repeating. We have examined the views of science and knowledge which two groups of creationists express in their literature. The ministers convey virtually no knowledge of what science is. They
speak nebulously of facts and proof being involved in science, but in the end, facts and proof for the ministers arise from their interpretation of the Bible. Authority is the basis for knowledge according to the ministers, and true science consists of statements about the natural world which can be reconciled to this authority.

The scientific creationists have a very different idea of what science is than do the ministers. The scientific creationists look at science as an exercise in careful observation, experimentation and classification of observable facts. The scientific creationists claim that authority and investigation of the world will result in identical conclusions though it appears that authority is of primary importance in their theory of knowledge. Thus, any extrapolations from observable facts must be in agreement with the scientific creationists' interpretation of the Bible.

Since the idea of evolution, that is, large-scale development and change in the universe as a whole and in populations of interbreeding organisms, particularly the process of speciation, involves occurrences which are not directly observable, it is unacceptable to the scientific creationists. They claim that evolutionary scientists have gone beyond science, which deals only with observable phenomena, and into metaphysical theorizing. The scientific creationists' view of science may seem very naive to those working within the social organization of science, but it is quite sophisticated when compared with the scientific knowledge of the ministers.

Contrasted with these very different images of science are the
identical images which both groups of creationists have of evolutionary theory. They both see it as a conspiracy of humanists who gain young converts through fraudulent education.

The finding that scientific creationists, most of whom have post-graduate training in science, have a more highly developed view of science than do the ministers, most of them with little or no scientific training, may seem to be simply a belaboring of the obvious. It could be argued that the same differences could be found between, say, the general public and engineers or technicians. But there are two reasons for the significance of this finding. First, evolutionary scientists commonly compare the creation scientists with themselves with the implication that creation scientists are only theologians or religionists (see Lewin, 1982). These findings point out that creation scientists are not "just" religionists (ministers) who have no knowledge of science, but neither are they of the same opinion as are evolutionists. Creation scientists are somewhere between the ministers and evolutionary scientists in terms of scientific training and the use of scientific jargon.

But when we look at attitudes toward evolution the scientific creationists are virtually identical to the ministers. This leads us to the second reason for the significance of this finding, and is more analytically interesting. How do we explain the finding that two groups of creationists have the same opinion of evolution, a highly scientific topic, while one group demonstrates a notable grasp of the more concrete aspects of science and the other demonstrates none at all? If the assertion of the scientific
creationists that they reject evolution on scientific grounds is accurate, we would expect their conception of what evolution is to be significantly different from that of the ministers. Yet the same images of evolution are found in the writings of both groups. It appears that something other than the ideology of science or scientific knowledge is involved in the scientific creationists' challenge to evolutionary theory.

If the creationists' opposition to evolution cannot be accounted for in terms of the presence or lack of scientific knowledge, what then is the basis of the creationist movement? Part of the answer may lie in the parallels which exist within the movement in terms of images of evolution and social organizational links between scientific creationists, ministers, and right-wing religious groups. Recall figure 1. The two major personages in the right-wing groups are connected through direct social organizational links to most of the scientific creationists, and other right-wing groups are connected through informal links. This is again highly suggestive. Scientific creationists claim that they reject evolution on a scientific basis. But figure 1 indicates that there is just as likely a social organizational basis for the congruity of attitudes toward evolution.

Theory of Knowledge and Social Ideology

The fifth research question deals with whether the creationists' theory of knowledge is indicative of some social ideology. There is indeed strong indication of a social ideology underlying the theory
of knowledge which each group of creationists professes. The ministers claim that authority is the best way of knowing. They claim to gain reliable and unchanging knowledge from the Bible. The scientific creationists emphasize both science (observation and classification) and authority (the Bible) as reliable sources of knowledge, but authority seems to be of primary importance to them also. Both groups, then, rely mainly on authority as the basis for knowing, indicating that an authoritarian social ideology rather than any scientific ideology underlies their epistemology and their interests in rejecting evolution.

In what way would an authoritarian social ideology prompt creationists to reject evolutionary thought? A large part of the answer lies hidden in one of the creationists' major claims about evolution— that it is a conspiracy. Any thought system in which children are taught that they are the result of natural processes, not the creative work of a personal God; that implies the biological and socio-cultural basis of morality, not that laws and morals are given by God; and that teaches children to question the values and common-sense knowledge which their parents have diligently taught them on the pretext that "That is what God says," or "That is just the way it is," is likely to raise fears in parents about the subsequent filial loyalty of children and the worth of the parents' own knowledge and values. Where a strong formal or informal social organizational network of such people exists, as it does among fundamentalists, a potential social movement of far-reaching consequence also exists.
We have examined three indicators of an ideological basis for the creationist movement; the scientific creationists' rejection of evolution is based on something other than their avowed scientific concerns, the scientific creationists' strong social links with right-wing religious and political groups, and the authoritarian theory of knowledge which both groups of creationists espouse. One question remains in this chapter.

**Historical Indicators of Creationist Ideology**

Here we are concerned with whether the creationists' beliefs and ideology have traces in the history of creationism and fundamentalism. Is the ideological substance of the creationist movement new or was it drawn from the traditional cultural resources of fundamentalism? Of course, today's creationists and the earlier fundamentalists share their opposition to evolutionism or Darwinism, but does the similarity extend to a deeper level? A comparison of the trends outlined in chapter 3 on the history of creationism to the beliefs and ideology found in the sample of creationist literature indicates that there is a great deal of evidence that many facets of the ideology of early fundamentalists have been carried into the creationist movement.

Conspiracy theories are a good example. Since Robison's 1797 expose' of Illuminism, right-wing groups and fundamentalists have regularly feared the supposed conspiracies of Catholics, Jews, Masons and others whom they thought were attempting to subvert the values and institutions of American life. Evolutionists and
"secular humanists" have been neatly fit into a modern conspiracy theory by today's creationists.

Other examples abound. The ministers' preoccupation with common-sense and the scientific creationists' emphasis on the down-to-earth scientific activities of careful observation and classification can be seen in the early fundamentalists who embraced Scottish Common Sense Philosophy and Baconian Science. The pleas of Falwell and LaHaye to turn America around before it is too late are derived from the apocalyptic world view of dispensationalism, which continues in popularity among fundamentalists. The polemic tone reminiscent of the Scopes trial can still be seen in many of the creationists' condemnations of evolution. And finally, the right-wing political involvement of the creationists—particularly the ministers—is hardly distinguishable from the McCarthyism of the 1950's. In short, virtually every important sociological manifestation of early fundamentalism can be seen in a modified form in the ideology and beliefs of today's creationists.

This previous ideology and belief system is not taken up verbatim by creationists though. It is modified to a greater or lesser extent to fit into the material conditions of life in which creationists find themselves and to further their interest in discrediting evolutionary theory. Conspiracy theories serve again as an example. When a great number of Eastern European immigrants were entering the United States the conspiracy theories focused on "foreigners" bringing foreign ways of life or supposed loyalty to Masonic sects with them (Lipset & Raab, 1977, p. 43). With today's
fragmentation of the nuclear family, the emphasis of conspiracy theories is on humanists who are supposedly undermining family values and on evolutionists attacking God as creator of the universe and of morality. The conspiracy theory is still recognizable, yet it is different. It has been modified by its believers to fit new circumstances. In this way we can see that the old knowledge serves as a cultural resource in the production of new knowledge (Barnes, 1977, p. 20). The social conditions of the creationists' world, their political interests, and their cultural resources in the form of old ideology and beliefs serve as causes which are actively shaped and modified by the creationists to produce new images of science and evolution.
PARTICULAR AND STRUCTURAL ASPECTS OF CREATIONIST IDEOLOGY

Particular Aspects

The first six research questions have been dealt with in this investigation. A final one remains. Does the literature produced by the creationists reveal a more general and deep-seated ideology behind their apparent beliefs about science and evolution? A number of particular aspects of the creationists' social and moral ideology were found and are presented in this section. The ministers and the scientific creationists express similar ideological views and so are treated together here.

Populism

One theme which continually comes up in the creationist literature is the wisdom and worth of the "common man". Populism in its many facets runs strong in the creationist movement as it does in its parent movement, fundamentalism. Creationists advocate the values of freedom of choice and individualism.

... all that exists is not one big cosmic machine which includes everything ... God and people are not a part of a total cosmic machine. Things go in a cause-and-effect sequence, but at a point of time the direction may be changed by God or by people. (Schaeffer, 1976, p. 142)

There is also the belief among creationists in the wisdom of the "common man" to choose between evolution and creation if only
presented with the facts.

Something so basic is obviously wrong with the whole notion of evolution that a child, if given only the facts, could immediately sense it. (Hiebert, 1979, p. 52)

Compare the simple record of the Bible, "In the beginning God created," . . . with the speculations of so-called science, and I appeal to your common sense and reason, which is the most credible and logical? (DeHaan, 1962, p. 20)

The wisdom of nonscientists to choose which model of human origins is best provides the major rationale for bringing the controversy to the courts and school boards rather than primarily to scientific meetings.

The Innocence of Uncorrupted Persons

Creationists emphasize not only the wisdom of common people, but the innocence and uncorrupted nature of children, tribal groups, and nonscientists.

It is innocent children and young people who are victimized and who become addicts to sexual perversion. (Falwell, 1980, p. 182)

There are no atheists among primitive nations of the earth. They have enough sense, not yet spoiled by "science, so called," to doubt the existence of God. (DeHaan, 1962, p. 55)

The working men and women of America are not confused—just their leaders. (LaHaye, 1980, p. 4)

It is interesting that this latent belief in the innocence of people is the opposite of the creationists' manifest belief in the inherent depravity of everyone.

Humanists have a basic misunderstanding of the nature of man. They consider man inherently good, whereas the Bible pictures humanity as fallen, sinful, and untrustworthy. (LaHaye, 1980, p. 92)

Apparently, when dealing with scientists, intellectuals and
government leaders it is incumbent on creationists to emphasize the
worth of common people while it is necessary to use the manifest
doctrine of inherent sinfulness when attempting to secure compliance
from these common people.

Anti-Intellectualism

As a corollary to the dignity of the "common man", creationists
express strong anti-intellectual sentiments.

Not more than 350 years ago, men of science believed that
full-grown mice could be generated spontaneously in a pile of
old rags left undisturbed . . . . Before you laugh at the
naivete of seventeenth century professors, you must understand
that scientists still believe essentially the same thing.
(Hiebert, 1979, p. 35)

The Bible declares that men and women who do not acknowledge
God, although professing themselves to be wise, become fools.
(Falwell, 1980, p. 68)

Evolution is to the creationists an intellectual fallacy which can
be seen through by people who are not corrupted by abstract
learning. Common people supposedly know intuitively and through
common sense that evolution, "something from nothing" or "order from
chaos" as creationists put it, is ridiculous.

"Us" v. "Them"

Creationists divide the scientific and social world up into
conflicting camps. Not only are they setting themselves against
evolutionists, but against much of the rest of the world. Thus "us"
versus "them" is another strong theme in creationist ideology. Not
surprisingly, "we" are righteous and "they" are evil, or at best,
wrong. It has been noted that creationists perceive evolution as a world view in opposition to Christianity. But creationists do not limit this view to evolutionists. Most of the world is seen by them as arrayed against Christianity.

Friendship with the world is hostility toward God because the philosophy of the world, its whole life view, is in contradiction to God's viewpoint of life. (Lindsey, 1972, p. 77)

This sentiment is also expressed in terms of knowledge.

Where did the universe come from? What is its origin? How old is it? or is it without a beginning? These questions have occupied the minds of men since the dawn of history. The answers can be grouped under one of only two heads: Creation or Evolution. (DeHaan, 1962, p. 44)

The dichotomization of the world is decidedly not seen by the creationists as a conflict merely of religion against secularism but of their particular religion against all other systems of thought, for the creationists claim that all religions other than orthodox Protestantism are part of the massive humanist and evolutionary philosophy, and that all nonchristian religions are patently false.

Not only do evolutionary systems appear among all the ancient philosophies and religions, however. In spite of many differences in detail, it is well known that the very religions themselves are all essentially the same. (H. Morris, 1974, p. 69)

The ridiculous scientific blunders in all religious works of man ["works of man" being all nonchristian religions] disqualify them conclusively as the communication of God to man. If the earth is described as triangular and flat, composed of seven layers . . . all borne on the heads of many elephants, as sacred Hindu writings assert, or stars described as torches set in the lower heavens, as stated in the Koran, one would not conceive of them as divine revelation. (Hiebert, 1979, p. 148)

This attitude of Christianity versus other religions and the rest of
the world is easily transformed by the creationists into a subtle West versus East attitude.

Thus it appears that only so long as the light of true spiritual faith, the basis of which is the Word of God, forms an essential element of a culture can it lay any claims to being or becoming a part of the main stream. . . . The main stream is only "main" so long as the Christian faith is contributing to its current in a vital way. (Custance, 1975, pp. 140-141)

Thus in creationist ideology "we" are correct and righteous while "they", whether "they" be evolutionists or taoists, are wrong and at times evil. But the world is so full of "them" and there are so few of "us" that conspiracy theories become easy for creationists to believe.

Conspiracy Theories

That creationists view the world as a place rife with conspiracies is an aspect of their ideology already examined in connection with evolution. Creationists extend their concern with conspiracies to many modern phenomena.

The world system has established this atmosphere of thought that subtly seeks to gain footholds in the believer's thinking. Once this is done, a steady pressure is exerted to pull him away from the divine viewpoint of life. (Lindsey, 1972, p. 97)

The Communist educational structure, under the direction of declared atheists, definitely includes in the curriculum that human beings came from an animal origin. (Moore, 1976, p. 91)

Most people today do not realize what humanism really is and how it is destroying our culture, families, country—and one day, the entire world. Most of the evils of the world today can be traced to humanism, which has taken over our government, the UN, education, TV, and most of the other influential things of life. (LaHaye, 1980, p. 9)
Civil Confrontation

Because of the conspiracies which creationists perceive everywhere, one of the major reasons they have produced their literature is to rally people to their cause. Both the ministers and the scientific creationists issue challenges to those "uncorrupted" persons who still believe in creationism and "American" values to stage civil confrontations of humanists and evolutionists.

At the appropriate time students [who believe in creationism] can ask definite, pointed questions [to stimulate their evolutionist teacher's thinking] such as, What are the observational data for that conclusion? or What research does the author use to support his conclusion? (Moore, 1976, p. 94)

I am seeking to rally together the people of this country who still believe in decency, the home, the family, morality, the free enterprise system, and all the great ideals that are the cornerstone of this nation. Against the growing tide of permissiveness and moral decay that is crushing our society, we must make a sacred commitment to God Almighty to turn this nation around immediately. (Falwell, 1980, p. 244)

Overt Racism and Ethnocentrism

Fundamentalism has traditionally been associated with racism (Lipset & Raab, 1977, pp. 274, 275, 434, 437). But today's creationists, particularly the scientific creationists, claim that evolutionary thought is the basis of racism, and by implication, that fundamentalism has nothing to do with it. Yet the ministers, who are more involved with right-wing politics, occasionally make statements that can hardly be construed as anything but racist. A case in point is Jerry Falwell. In a passage dealing with pornography he quotes Charles Keating Jr., founder of Citizens for
Decency Through Law.

"Pornography is evident everywhere. At Forty-fourth and Madison in New York City, what is frequently called the Minnesota Strip, you see young thirteen- and fourteen-year-old girls with blond hair and blue eyes degraded and enslaved in lives of prostitution as a result of pornography." (Falwell, 1980, p. 197)

What is the significance of mentioning specifically that the young girls have blond hair and blue eyes? Is the sexual enslavement of young Nordic girls worse in the eyes of Falwell and Keating than the enslaving of young Latin or Black girls? Since Falwell is hardly concerned with the demographics of child prostitution it is apparent that the ethnicity of the girls was mentioned to enhance the emotional appeal to an audience composed largely of Northwest European decent.

Another minister, W. I. Criswell, speaks in parallel terms of "fine" strains of plants, animals, and humans.

This same principle of regression is found in all nature. It can be seen in plant life. If there are fine strains of wheat or fine strains of corn or fine strains of any other vegetation, leave it alone and soon it will run down. If there are finely developed trees bearing oranges or figs, if there are finely developed vines bearing grapes, leave them alone and they will run down. The same principle is observed everywhere in the animal world. If there are fine breeds of cattle, leave them alone and they will descend into scraggs. If there are thoroughbred horses, leave them alone and they will degenerate into broomtailed ponies. This principle also applies to the human race. Man has descended, not ascended, and in some instances to the level of the Australian aborigine. (Criswell, 1969, pp. 140-141)

Racism is apparently not dead among the creationist ministers and we have already noted the close connections which they have both socially and ideologically with the scientific creationists. We are probably safe in saying that racism remains a hidden, yet important,
aspect of creationist ideology.

In this section a number of particular aspects of creationist ideology have been presented. In addition to those elements of creationist ideology which this investigation directly addressed, their authoritarian theory of knowledge, their decidedly unfriendly view of evolution and modernism, and their different views of science, we have found that creationists emphasize populism, the virtues of intellectual innocence, anti-intellectualism, a polarized view of the world, civil confrontation, and have hidden racist attitudes. All together there is a dizzying array of ideological traits. Are these traits isolated bits and pieces, or is there some systematic way in which they are unified?

An Ideological Substructure of Belief

There is evidence of a common unifying theme in the creationists' social, moral and scientific beliefs. It is a deeper, more metaphysical aspect of creationist ideology than are the concrete, individual aspects dealt with in the previous section. It will be referred to in this discussion as the creationists' ideological substructure of belief. Briefly, there are two main premises to this ideological substructure. First, creationists believe that the world in its normative state has order, design and purpose. God, they say, has designed a meaningful world, the meaning of which can be investigated. Secondly, the order of the world is breaking down, becoming more disordered and corrupt. This conservative metaphysic serves as a substructure of meaning which
undergirds the entire superstructure of individual beliefs and values the creationists have about God, society, and science.

**The Good World is the Ordered World**

This first component of the creationists' ideological substructure assumes that God has created an orderly world. Order is the preferred state of affairs for the creationist. This order can, they say, be seen in the physical universe and can be investigated by humans.

... the majority of those who founded modern science, from Copernicus to Maxwell, were functioning on a Christian base. Many of them were personally Christians, but even those who were not, were living within the thought forms brought forth by Christianity, especially the belief that God as the Creator and Lawgiver has implanted laws in his creation which man can discover. (Schaeffer, 1976, p. 138)

This purposeful order can be seen in the genetic code, say the creationists.

The chemical patterns on DNA spirals, in their turn, decide the patterns and codes behind the genes and their outworkings in various morphological, physiological and metabolic codes. Each code and pattern gives rise to another, but they all revert, eventually, in their origin, to the grand code and pattern-maker known as intelligence. (Wilder-Smith, 1970, p. 228)

Likewise in the creation of the world of life God intervened, created life, and locked it in nature. We cannot change God's laws of the fixation of the species. Each kind produces after its kind and each species follows the genetical boudaries of its own species. (Criswell, 1969, p. 150)

The pattern and order of the physical world can also be seen, the creationists say, in the ecological fit of organisms to their environment. According to creationists, organisms don't adapt, God placed them within a particular niche by design, and those organisms are, by implication, supposed to stay within that niche.
Creationists and evolutionists agree that adaptation such as the woodpecker's skull, cleaning symbiosis, and the bombardier beetle's cannon all have survival value. After all, if living things were created to multiply and fill the earth, they would be created with features for survival. The question, then, is not one of survival value or fitness, but rather, how did these adaptations originate: by time, chance, and natural selection; or by plan, purpose, and special creation? (Parker, 1980, pp. 52-54)

In addition to a created physical order, the creationists say that there is a created moral order. Their belief in this moral order is obvious in their statements that it is not being followed.

Perhaps nowhere does the modern world viewpoint become more obviously opposed to God's viewpoint than in the area of the parent-child relationship. Basic concepts of discipline, respect for authority, absolutes, and morality have radically changed in the concepts of child-rearing and the public educational system. (Lindsey, 1972, p. 101)

Because of the vacuum in our public schools in the area of character building, Christian educators have found it necessary to begin their own schools. America's school system has always contributed to her greatness and we have a responsibility to teach our children that which is right and that which is good. (Falwell, 1980, p. 219)

It is assumed by the creationists that the order in moral affairs is as objective and obvious as is the order in the physical world. The physical and moral order of the world is, according to the creationists, both the original and the normative state of the world.  

The Breakdown of Order

A second aspect of the creationists' ideological substructure of belief is that although the world was created as orderly and we should strive to understand and follow this order, the world is inevitably running down. This tendency toward entropy is evident in
many areas, say the creationists. Two of these areas which come up often in the creationists' literature are, again, physical. One concerns entropy, a universal "law" for the creationists. They see the entire universe literally falling apart due to a constant loss of energy.

[Evolutionists] are persuaded and would have us believe that all of life and all of nature tend toward upward and progress tends forward and higher. This is denied by every observation we are capable of acknowledging and discovering in the universe. The universe itself is running down. Somewhere, sometime, Someone created it and wound it up, and like a great clock it has been running down ever since. (Criswell, 1969, p. 140)

Another physical aspect of the creationists' perception that the world is running down is their assertion that living organisms, usually through genetic error, are running down.

Some people like to call mutations "the means of creation." But mutations don't create, they corrupt. Mutations are real, all right, but they point not to creation, but to a corruption of the created order by time and chance. (Parker, 1980, p. 66)

The physical world, then, was created orderly and is running down according to creationists. As in their belief in a created order, their belief in the degeneration of that order extends to the moral world also. Philosophy and art, for instance, are becoming more absurd (disordered), say the creationists.

One need only explore modern literature, listen to modern music, watch modern drama, or view modern art to become quickly convinced that they are all pervaded by a spirit of amoralism and atheism that can only be grounded in the belief that science has proved man is an animal and God is dead. (H. Morris, 1974, p. 34)

The supposed moral decadence of the modern world is further proof to creationists that the moral order which God created is breaking down.

The humanistic doctrine of evolution has naturally led to the destruction of the moral foundation upon which this country was
originally built. If you believe that man is an animal, you will naturally expect him to live like one. Consequently, almost every sexual law that is required in order to maintain a morally sane society has been struck down by the humanists, so that man may follow his animal appetites. (LaHaye, 1980, p. 64)

Here LaHaye makes it quite explicit that sexual laws are a part of what he deems the necessary order of the world and they are being broken down by a humanist conspiracy.

Creationists say that the breakdown in the moral order of the world is largely attributable to the continued insistence by people on disobeying God's authority.

Once man has rejected the Bible and other religious authority, there is no more divine constraint toward honesty or purity or charity or any of the other ethical values associated with divine revelation. (H. Morris, 1974, p. 34)

The creationists' goal in face of the moral breakdown of humanity is to learn the order which they claim is the normative state of the universe and to follow that order.

In the Christian schools, education begins with God. The objectives are based upon biblical principles, with God as the center of every subject. The philosophies taught stand as witness to society, as the ultimate goal, not as a reflection of man's sinful nature. In science the student learns God's laws for the universe; in history, God's plan for the ages; and in civics, God's requirement of loyalty and support for the government He has ordained. (Falwell, 1980, p. 219)

Analytic Conclusions

We have seen that a preoccupation with order and with entropy are of great importance to the creationists' ideology. I have proposed that these ideas are not merely important, but are central to the creationists' ideology, forming an ideological substructure of belief, a reference point to which all the particular aspects of
their beliefs about knowledge, science and society point. The relationship of the creationists' ideological substructure to the particular elements of their ideology can be depicted graphically, as in figure 2.

<table>
<thead>
<tr>
<th>Particular Elements of Creationist Beliefs and Ideology</th>
<th>Ideological Substructure</th>
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<tbody>
<tr>
<td>Authoritarian theory of knowledge</td>
<td>ORDER</td>
</tr>
<tr>
<td>Science as &quot;proof&quot; and &quot;absolute fact&quot;</td>
<td>BREAKDOWN OF ORDER</td>
</tr>
<tr>
<td>Science as careful observation and classification</td>
<td></td>
</tr>
<tr>
<td>Populism</td>
<td></td>
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<tr>
<td>Innocence of children</td>
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<tr>
<td>Civil confrontation</td>
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<td>Conspiracy theories</td>
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<tr>
<td>&quot;Us&quot; v. &quot;them&quot;</td>
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<tr>
<td>Anti-intellectualism</td>
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<tr>
<td>Apocalyptic world view</td>
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Figure 2. Relationship between substructure and elements of creationist ideology

The creationists' approaches to knowledge and science most clearly show their emphasis on an orderly world, and so are placed on the "order" side of figure 2. An emphasis on created order implies an authoritarian theory of knowledge. If the world was created with an inherent order one might expect the creator/designer to reveal at least part of that design. The creationists say that God has done just that in the Bible. And if the world's order is breaking down, where does one go to find certainty? Back, say the creationists, to the authoritative source of knowledge.

The creationists' images of science are also inherent in their
emphasis on order. The ministers emphasize proof and absolute facts. The certainty of proof and absolute facts would tend to appeal to people who believe in a created order in the world. The scientific creationists on the other hand prescribe careful observation and classification as the essence of science. Such a viewpoint differs from the ministers' image of science, but it also assumes an order to the world. Here the emphasis is on observation and classification of that order.

Now the creationists also perceive the breakdown of order, and this perception largely influences their approach to society. The four themes on the right side of figure 2 fit into this category. These themes, their conspiracy theories, their "us" versus "them" viewpoint, their anti-intellectualism, and their apocalyptic world view, are themes which arise out of fundamental tensions which creationists perceive in society. These tensions and resulting ideological themes appear in figure 3.

<table>
<thead>
<tr>
<th>Perceived tensions</th>
<th>Resulting ideological trends</th>
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<tr>
<td>Innocence/Common</td>
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<td>sense</td>
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<td>Social &amp; moral order</td>
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<td>order</td>
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<td>anarchy</td>
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Figure 3. Perceived tensions and resulting ideological trends in creationism.
The creationists emphasize the worth of common sense and the innocence of children. At the same time they feel that these are threatened by abstract thought, one form of which is evolutionary theory. The resulting ideological theme is anti-intellectualism in the form of various attempts to discredit thought forms which are not religious or characterized by "common sense".

In like manner, the creationists feel the status quo is threatened by social change, and this tension gives rise to conspiracy theories; the "us" versus "them" theme arises from the tension between the creationists' comfort with ethnic and cultural homogeneity and their perception of a threat from trends toward heterogeneity; and they perceive a threat to their preference for a particular social and moral order, and express this tension in an apocalyptic world view. Each of these themes is a manifestation of the creationists' perception of a threat to their preferred state of order, and thus are placed on the "breakdown" side of figure 2.

Those aspects of creationist ideology connected with their preference for order (including the various facets of their beliefs about knowledge and science) and those connected with their fear of disorder (including the four themes discussed above as well as the creationists' beliefs about evolution constitute a repertory of arguments which are used by creationists to construct particular images of science, evolution, and society--images which are used to help them obtain their objectives, just as scientists do with their own ideology (Mulkay, 1980, p. 101). These objectives can be the "protection" of their children from evolutionists, the procuring of
permission to teach creationism in public schools, or even such seemingly unrelated objectives as protecting the tax-free status of their churches and schools.

Notice in figure 2 that there are three common themes in the creationists' social ideology which straddle the dividing line between concerns of order and its breakdown. Populism, the innocence of children, and civil confrontation are those aspects of creationist ideology which represent the point at which creationists perceive the battle between order and disorder is being waged. Common people and children are seen by creationists as living closely within the bounds of the created order. Yet it is the hearts and minds of these people whom the forces of disorder--evolutionists and humanists--are supposedly after. This is the point at which creationists perceive the battle line between order (creationism) and disorder (evolutionism) is drawn; the point at which the issue is arbitrated. Children and lay people are encouraged by creationists to speak out in favor of order and to resist those who would bring disorder. This civil confrontation—in courts, schoolrooms, school board meetings, and universities—is where the features of creationist ideology are selectively utilized by creationists in their fight against evolution.
CHAPTER VII

CONCLUSIONS

Summary of the Investigation

This has been a sociological investigation of the scientific, religious and ideological beliefs of participants in the creationist movement. The creationists insist that they attack evolutionary theory on scientific grounds. They claim that evolution is not scientifically valid and that creationism is as tenable an hypothesis as is evolution. Primarily through documentary analysis of creationist literature and with reference to historical sources it has been demonstrated in this investigation that the creationists' attack on evolution is more on the basis of their own ideology than that of science.

Two groups of creationists were found to have two very different conceptions of science. The ministers claim that science is made up of "absolute facts" and "proof". Further, they commonly confuse science with common sense knowledge. The scientific creationists have a more sophisticated view of science. To them science consists of the careful and replicable observation and classification of data. Abstract theorizing is unacceptable to the scientific creationists but certain inferences are, if these inferences coincide with the scientific creationists' interpretation of the Genesis account of creation.
In contrast with their different views of science, the two groups have identical views of evolution. Both see evolution as a conspiracy spreading fraudulent ideas through the public education system. In light of the identical views of evolution which the two groups of creationists have and the large gap between their conceptions of science it was concluded that the creationists' rejection of evolution is not, as they claim, on scientific grounds. This conclusion is supported by the strong social organizational links between the scientific creationists and right-wing political groups such as the Moral Majority.

The two groups were found to have similar theories of knowledge as well. The ministers put authority squarely at the basis of any knowledge system. They claim to get unchanging and absolutely reliable knowledge on all matters from the Bible. The scientific creationists make the same claims but attempt to bring their concept of science into their theory of knowledge by saying that observations of the natural world will always be in accord with revelation in the Bible. Such an argument, though, clearly makes authority primary in the scientific creationists' theory of knowledge also. Choosing authority as the basis for all knowledge is a clear indication that creationists are espousing an authoritarian social ideology. It is suggested in the study that evolution and other forms of modernism are likely to incur the creationists' wrath whenever they threaten traditional religious and parental authority.

A number of aspects of the ideology of creationists appear in
ideas and events which have been significant in the history of fundamentalism. Among these aspects are conspiracy theories, Scottish Philosophy, Baconian science, and the right-wing politics of the 1950's. It was suggested that these ideas have served as a cultural resource in the production of new beliefs and ideology by the creationists.

Findings of a number of social and moral elements of creationist ideology were also presented. Among them are advocacy of populism, the innocence of children, and an "us" versus "them" attitude toward the social world. An ideological substructure of belief was described, consisting of the conviction of creationists that order is the preferred state of the world, and that much of this order is breaking down. It was argued that the various particular aspects of creationist ideology and the creationists' theory of knowledge as well as their scientific beliefs can all be seen as derivatives of this ideological substructure.

Significance of the Investigation

A major conclusion of this investigation is that creationism as a social movement arises not from the social organization of science nor its ideology as creationists claim, but from the fundamentalist ideology and social organization of the creationists. As such, the role of education in co-opting or forestalling such movements is called into question. Certainly, there are a number of people in the sample (most of the ministers) who know nothing of science and so they mistrust it and it's evolutionary claims. But the presence
of scientific creationists, some holding Ph.D.'s in scientific fields, who also mistrust the social organization of science, should cast doubt on any illusions scientists or educators may have of educating people into accepting science with open arms.

Another significance of the study is in pointing out the structural nature of creationist ideology and the explanatory power of this structural view. The creationists' beliefs about science, religion and society are all closely related to their twin emphases on order and entropy, the breakdown of order. Furthermore, this ideological substructure of belief is likely to be a relatively stable framework within which the particular aspects of creationist ideology are allowed to vary somewhat, as is evident in both the continuity and modification of creationist beliefs throughout their history. This is, of course, an exploratory investigation, and many of the implications of this perspective on creationism as a social movement are yet to be explored. There are many unanswered questions which this view raises.

Unanswered Questions

What has been the place of the twin emphases on order and entropy in the history of the creationist movement? In what way has this meaning system affected, and been affected by, the challenges of the creationist movement to the social organization of science and the stature of creationism in the United States? An historical investigation of changes and continuities in the creationist movement is my next step.
The various ideological elements and the ideological substructure of creationism should be useful in tracing links between creationists and other religious and political groups. It may be that the liberal to conservative continuum often applied to the analysis of religious groups is not entirely applicable. The basic view which these groups have of the world may be more meaningful and true to the participants' lived experience than is a label of "conservative", "moderate", or "liberal". If we take into account the ideological substructure of creationists, their beliefs that the world's normative state is order, an order which is breaking down, we may find that they are more closely related to groups such as survivalists and the National Rifle Association than to other religious groups.

To make such comparisons, similar analyses of the beliefs of these various groups would be necessary, as would investigation to determine the differences, if any, between the beliefs of creationists and of fundamentalists in general. Are creationists representative of all fundamentalists, or of a particular aspect of fundamentalism? Is fundamentalism simply ultra-conservative Christianity or is it structurally different?

Another set of questions this study raises is more political; how do groups such as Protestant fundamentalism and creationism arise as social movements, and what respective roles do history and the immediate conditions of life play in the emergence of right-wing groups? The role of cultural resources (past beliefs in the history of creationism) and interests in parental authority as causal agents
has been discussed, but under what types of conditions do these factors become active? Are right-wing movements a visible manifestation of society's struggle to arrive at a consensus of shared values, the general concern of Lipset and Raab (1977), Hofstadter (1963; 1965), and Smelser (1962)? Or do right-wing groups arise as a result of inherent contradictions in capitalist society as Fishman (1981) and Welsh (1981) assert? These are some of the germane questions suggested by this investigation and worthy of further research.
NOTES

CHAPTER I


2. Although the Scopes trial was a public setback for creationists, evolution was still largely ignored in school textbooks throughout the first half of the century (Nelkin, 1982, p. 33). It was not until the late 1950's and early 1960's that publishers, largely at the prodding of the federal government, began in earnest to include evolution in their school texts (Nelkin, 1982, pp. 40-51).

CHAPTER II

1. This is, of course, not to say that evolutionary scientists do not make selective use of tactics to advance their own position in the controversy.

CHAPTER III

1. These accusations bear some similarity to those to which Marx & Engels addressed themselves in *The Communist Manifesto* (1847, pp. 96-102). Moreover, Communism and Illuminism have been closely connected in conspiracy theories for quite some time.
Father Charles E. Coughlin for instance, who spearheaded a "proletarian" fascist movement in the 1930's (Lipset, 1960), stated that Marx's inspiration came from Adam Weishaupt, founder of the Illuminati (Coughlin, 1931, p. 45; Lipset, 1977, p. 181). Senator Joe McCarthy's death in 1957 was supposedly orchestrated by the Illuminati because of the senator's "discovery" that the Communists he so vigorously hunted were under Illuminati control (Carr, 1957, p. 258-259; Lipset, 1977, p. 225). Recently John Todd, traveling in fundamentalist circles in the late 1970's, associated Illuminism with Communism, witchcraft, the Rothchild family of Europe, and rock music. Todd eventually alienated much of his religious audience by accusing President Jimmy Carter of being the Antichrist, Jerry Falwell of being "bought off" with a $5 million check, and several prominent charismatic (those who practice "speaking in tongues") leaders and organizations of being fronts for Illuminism and witchcraft (Plowman, 1979).

2. Another form of millenarianism was also popular. It emphasized the steady improvement of humankind and of society resulting in the millenium as a human product. This view was termed postmillenialism because its adherents believed that Christ would return after the millenium (Sandeen, 1970, p. 5). The premillenial position however, emphasizing the corruption inherent in the world and the imminent appearance of Jesus Christ, was the one which was embraced by American fundamentalists.
3. Many fundamentalists have used prophetic passages in the Bible, particularly the book of Daniel in the Old Testament and the Revelation in the New Testament, to produce elaborate schemes of religious and human history. These schemes typically feature anywhere from three to fifteen separate and qualitatively distinct periods, called dispensations, in which God deals with humankind in different ways. Many predictions of the exact dates of events such as Christ's second coming, the appearance of the Antichrist, and invasions of Communist hordes, which are based on dispensationalist schemes have been disappointments to fundamentalists. I am reminded for instance, of the sureness with which a number of fundamentalists predicted during the administration of Richard Nixon that Henry Kissenger is the Antichrist and would soon seize control of the world. But one prediction in which the fundamentalists take great satisfaction is their longstanding contention that the Jews would return to the Promised Land (Sandeen, 1970, pp. 9-10; 21; 96).

The most popular dispensational scheme is that of C. I. Scofield with seven periods of history. Briefly, Scofield's view is as follows.

<table>
<thead>
<tr>
<th>Dispensation</th>
<th>Corresponding Biblical/Historical Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Man Innocent</td>
<td>Garden of Eden</td>
</tr>
<tr>
<td>Man Under Conscience</td>
<td>Pre-Flood</td>
</tr>
<tr>
<td>Man in Authority over earth</td>
<td>Noah to Abraham</td>
</tr>
</tbody>
</table>
Man Under Promise Abraham to Moses
Man Under Law Moses to Jesus
Man Under Grace Jesus to the Second Coming (Christian era)
Man Under the Personal Reign of Christ Second Coming and Forward

For a detailed presentation of dispensationalism see Ryrie (1965), Scofield (1971), and the Scofield Reference Bible.

4. The battle over the literal interpretation of the Bible was being waged on two fronts. One was Darwin's challenge to the Genesis account of human origin. The other front was the higher critical tradition of biblical scholarship developed on the European Continent and which was gaining influence in many Protestant denominations in the United States. This approach to theology emphasized critical scrutiny of scriptures and downplayed the unquestioned, literal acceptance of the Bible's contents. Early fundamentalists, of course, took strong exception to the higher critical position, sometimes in a highly refined manner as was the case at Princeton Theological Seminary (Sandeen, 1970, pp. 103-131). In many cases though, the defense of biblical inerrancy took on a strong anti-intellectual flavor, a mood which has continued to pervade many aspects of American life (Hofstadter, 1963). For a contemporary fundamentalist view of the inerrancy debate see Lindsell (1976).

5. The combination of Scottish Philosophy and Baconian method as a means of inquiry was applied by fundamentalists not only to the
natural world but to the Bible as well. The method was to be applied, "Whether the subject was theology or geology . . . ", because to the fundamentalists, "The Bible . . . was the highest and all-sufficient source of authority." (Marsden, 1980, p. 16). It was implicit in the system that using common sense to carefully observe and classify facts of an empirical and of a spiritual nature will not be an exercise in contradiction.

6. This dichotomy between modernists and fundamentalists is an ideal-typical one. Protestants then and now do not fit easily into pigeon holes and the majority of them are somewhere between the two poles. The line between the two positions cannot easily be drawn along denominational boundaries either. Baptists, Presbyterians, Methodists, Episcopalians and others have all had their own internal disputes over modernist/fundamentalist issues (Furniss, 1963).

7. It is ironic that a trial intended to test the constitutionality of an antievolution law can consist so largely of intense questioning of the personal beliefs of Bryan and Darrow or, as in the case of the following exchange, simple personal effacement.

Mr. Bryan - Your Honor, I think I can shorten this testimony. The only purpose Mr. Darrow has is to slur at the Bible, but I will answer his questions. I will answer it all at once, and I have no objection in the world. I want the world to know that this man, who does not believe in God, is trying to use a court in Tennessee----

Mr. Darrow - I object to that.

Mr. Bryan - To slur at it, and, while it will require time, I am willing to take it.

Mr. Darrow - I object to your statement. I am examining you on your fool ideas that no intelligent Christian on
earth believes.

Mr. Darrow and Mr. Bryan, both standing, were shaking their fists, and the Judge, banging his gavel on the table, promptly adjourned court until next morning. (Allen, 1925, pp. 155-156)

CHAPTER IV

1. What gives the Secular Humanism conspiracy theory credibility for many people is that it contains some empirical basis. Just as the Illuminati did exist at one time, there is an American Humanist Association today which denies that there is evidence of a creator, produced the Humanist Manifesto's I and II, and has some very notable people such as B. F. Skinner and Carl Sagan associated with it. The conspiracy theorists take such information and go far beyond it to posit the existence of an extremely well orchestrated plot to control the world and do away with Christian culture.

2. Frances A. Schaeffer (1976) devoted an entire book to the subject of the erosion of the "Christian consensus of the Reformation" and the growth of humanism. LaHaye takes much of his inspiration from Schaeffer, whose tone is a bit milder than LaHaye's but carries much the same message.

In our era . . . man destroyed the base which gave him the possibility of freedoms without chaos. Humanists have been determined to beat to death the knowledge of God and the knowledge that God has not been silent . . . and they have been determined to do this even though the death of values has come with the death of that knowledge. (Schaeffer, 1976, p. 226)

Schaeffer sees chaos and oppression as the result of the loss of
this Christian consensus. Order, but not without freedom, is what he says the Christian consensus brings. LaHaye obviously agrees.

... the United States, a nation born out of the Christian consensus of the Reformation, did something unparalleled in all of history. When we had Japan and Germany in a state of helpless, unconditional surrender, instead of enslaving them, as many might have done, we restored their freedom and rebuilt them ... Where did that kind of goodness come from? It certainly was not the result of humanism! (LaHaye, 1980, p. 119)

Given this statement, one might wonder how LaHaye would respond to Vine Deloria Jr.'s indictment of Christianity (both Protestant and Catholic) for its role in the extermination and oppression of American Indians, Australian Aboriginal peoples, and Swedish Lapps (see Deloria, 1973, chapter 15 "The Aboriginal World and Christian History").

3. Creationists are not concerned only with the teaching of evolution in public schools. They have a broad base of family-oriented issues which garners them much support. Tim LaHaye and his wife, Beverly, publish a number of books on the "biblical" view of sex and marriage, childrearing, the management of emotions, and homosexuality. The Creation Science Research Center not only promotes creationism but is active in opposing sex education, abortion, the Equal Rights Amendment, homosexuality, and child prostitution. (Creation-Science Report, 1980).

4. A romanticist concern with the protection of the unsullied minds of children is prevalent in fundamentalism. See Furniss (1963,
p. 44) and Yankelovich (1981). This concern is seemingly contradicted by their older and more basic doctrine of the innate depravity of every individual.

5. Creationism includes the idea of Adam and Eve as real persons from whom the entire human race descended. Adam and Eve's first sin of disobeying God by eating the forbidden fruit (not necessarily an apple) resulted in their expulsion from the Garden and in the hereditary problem of sin. Thus, according to the creationists' doctrine, everyone is in need of Jesus Christ to atone for their sin. To the creationists, the doctrines of original (hereditary) sin and of creation are closely related.

6. Baptists are not, as some perceive, a homogenous group. Frank Mead, in his Handbook of Denominations in the United States (1975) lists twenty-eight distinct Baptist groups in America, ranging from the rigidly orthodox Primitive (or "Hard Shell") Baptists to the more liberal and ecumenical American Baptist Churches in the USA.

7. Members of the strictly fundamentalist groups would likely object to being put into the same category as Jehovah's Witnesses, Mormons, and Seventh-Day Adventists. One need only visit a fundamentalist or evangelical bookstore to find volumes written by fundamentalists condemning these so-called "cults". Nevertheless, because of similar emphases on the literal truth of the Bible, shared apocalyptic world-views, and similar socio-cultural orientations, all of these groups are considered together here. Most of the differences between these groups are
doctrinal rather than political or demographic. Mead (1975) has published concise and accurate descriptions of the doctrines of these groups.

8. Jerry Falwell stresses that the Moral Majority is a political, not a religious organization. This emphasis is probably because there are many non-fundamentalists in the Moral Majority and there are strong feelings among fundamentalists against associating with outside groups on a religious basis.

CHAPTER V

1. Francis Schaeffer is an anomalous member of the group which I have labeled "social critics" in the sense that he has scientific knowledge more in line with that of the scientific creationists.

CHAPTER VI

1. Some creation scientists even speak in legal terms. Duane Gish, for instance, says, "If [Weidenreich's models of Sinanthropus fossils] were ever brought to court there would not be the slightest doubt that such hearsay evidence would be ruled inadmissible" (1978, p. 27). Such language is highly appropriate to a group which itself goes to court in order to argue its case so often.

2. Nelkin touches upon this theme when referring to creationists and other textbook watchers as people searching for order and certainty (1982, pp. 21, 195). The emphasis in this analysis is
that the creationists' search for order is manifest in their basic world view— their belief that a created physical, social and moral order is inherent in the world.
APPENDIX A:

METHOD OF DATA COLLECTION

General Methodological Rationale

There is a readily available source of data containing the scientific beliefs of creationists. This source is the considerable body of literature which they have produced since the movement re-emerged in the early 1960's. The ready availability of this literature is a major advantage. Survey instruments did not have to be constructed, and long hours of interviews or participant observation were not required. The data needed only to be extracted from the creationists' literature.

Another advantage of the data base is that it can be unobtrusively investigated. The investigatory act did not objectively affect the data, for its existed before this study was undertaken. This is not to say that the creationists' statements in the data base are, in total, unselfconsciously produced. The monographs which I investigated were produced with deliberation and care by their authors. They said only those things which they intended to say. This could be seen as a limitation compared with participant observation, which may be more useful in uncovering hidden beliefs and motives. Yet, hidden beliefs and motives were nevertheless uncovered in this investigation. Conversely, this method of documentary analysis has the advantage of extracting those
official and quasi-official beliefs which creationist leaders are passing on to their constituents.

Sample

Several strategies of sample selection were considered, all with some limitations. A simple random sample of all creationist monographs would likely produce a number of obscure works which few people have ever read. Such a sample could hardly represent the mainstream of the creationist movement.

An acceptable alternative would be to select the most popular books. After consultation with a representative of Creation-Life Publishers and a review of the offerings of several religious bookstores, such a sample was generated. But nearly half of these books were authored by one man, Henry Morris. Since my aim was not to analyze the beliefs of primarily Henry Morris with a few other authors, but the beliefs of a number of major creationists, only one of Morris's books was retained. The resulting sample, listed below, is intended to represent the writings of fifteen of the most widely-read creationists, presumably those with the most influence in terms of spreading creationist beliefs.

Table 2. Sample of creationist monographs.

* Criswell. *Why I preach that the Bible is literally true.*
Custance. *Genesis and early man.*
* DeHaan. *Genesis and evolution.*
* Falwell. *Listen America!*
Gish. *Evolution? The fossils say no!*
Hiebert. *Evolution: Its collapse in view?*
Hill. *How did it all begin?*
With "*": ministers
Without "*": scientific creationists

Some of the authors are the familiar "scientific creationists", who usually have advanced degrees in science and write mainly on the creation/evolution controversy. Others are "ministers", whose treatment of the controversy is within the larger context of general social criticism. The monographs produced by ministers are marked with an asterisk (*) in the list above.

Indicators

The indicators of creationists' scientific beliefs were derived directly from the first three research questions. Thus, to determine how creationists viewed evolution I approached the sample with the question, "What is evolution?" (from each author's point of view). In like manner the creationists' views of science and knowledge were extracted from the sample with the queries, "What is science?", and "What is the best way of knowing?"

Data Collection

Where relevant "responses" were found, such as, "If we base our conclusions on what we see, then, the logical inference from our
observation of careful and artful design should be a Designer" (Parker, 1980, p. 32) in answer to our query of "What is science?", those responses were recorded and the author, page number and relevant research question were coded.

Selection of Quotations

The use of all quotations relevant to each point in this analysis would have resulted in a volume many times its present size. In most cases only one or two representative quotations were used, both to clarify the point being made and to give the reader a sense of the rhetorical tone used by the creationists. In most cases a large number of alternative quotations could have been used interchangeably because of the homogeneous nature of their content. One can find not only the same assertions repeated by a single creationist, but by other creationists as well.

Table 3 illustrates the homogeneity of the creationists in their assertions. Listed vertically are the various aspects of creationists' images of evolution, science, knowledge and society. Listed horizontally are the creationists in the sample, first the 6 ministers, then the 9 scientific creationists. In the appropriate spaces associated with each assertion there is an "x" marked for those creationists who make that assertion. An "O" is marked where a creationist makes an assertion which takes the form of catch-words or aping of the scientific creationists. For instance, Tim LaHaye states that, "measureable statistics and evidence contravene humanistic doctrine" (1980, p. 107), but does not, as a scientific
Table 3:
Consensus on overt assertions made by creationists.

| Evolution is a conspiracy. | "Capture of minds". | Evolution is based on ignorance, etc. | Ev. assumes progressive change. | Ev. assumes randomness and chance. | Evolution is nothing new. | Science is absolute facts or proof. | Science and common sense are similar. | Empirical methods the basis of science. | Limited inference from data. | Teleological arguments are valid. | Authority is the basis of knowledge. | Observation is the basis of knowledge. | Advocacy of populism. | Innocence of uncorrupted persons. | Anti-intellectualism. | "Us" versus "them". | Conspiracy theories. | Civil confrontation. | Racism/ethnocentrism. | The good world is the ordered world. | The world's order is breaking down. |
|---------------------------|---------------------|--------------------------------------|--------------------------------|--------------------------------|-------------------------------|-------------------------|-----------------------------------------|--------------------------------|--------------------------------|-----------------------------|---------------------------------|-----------------------------|-----------------|--------------------------|---------------------|------------------------|----------------------|----------------------|----------------------|----------------------|
| X                        | X                   | X                                    | X                               | X                               | X                             | X                       | X                                      | X                               | X                               | X                           | X                               | X                           | X              | X                        | X                    | X                      | X                    | X                    | X                    | X                    |
| X                        | X                   | X                                    | X                               | X                               | X                             | X                       | X                                      | X                               | X                               | X                           | X                               | X                           | X              | X                        | X                    | X                      | X                    | X                    | X                    | X                    |
| X                        | X                   | X                                    | X                               | X                               | X                             | X                       | X                                      | X                               | X                               | X                           | X                               | X                           | X              | X                        | X                    | X                      | X                    | X                    | X                    | X                    |
| X                        | X                   | X                                    | X                               | X                               | X                             | X                       | X                                      | X                               | X                               | X                           | X                               | X                           | X              | X                        | X                    | X                      | X                    | X                    | X                    | X                    |
| X                        | X                   | X                                    | X                               | X                               | X                             | X                       | X                                      | X                               | X                               | X                           | X                               | X                           | X              | X                        | X                    | X                      | X                    | X                    | X                    | X                    |

X: A major emphasis.
0: Mentioned in the form of catch-words, or mimicking of the scientific creationists.
creationist generally would, go on to discuss why or how he believes this is so.

This table, indicating the presence or absence of creationists' assertions, bears out the analysis presented in the text. Most creationists are in agreement about their images of evolution. The assertions that science consists of absolute facts and common sense are generally made by the ministers while references to empirical methods and inferences from observation are generally made by the scientific creationists. Both groups claim that authority is the basis of knowledge with the scientific creationists also stressing the importance of observation. In the various aspects of the creationists' social ideology there is again general agreement among both groups.

There are a few apparent problems which show up in the table, but these are readily explained when two factors are taken into account; the overtness of the assertions and the specificity of the monographs. By way of example, notice that the racism/ethnocentrism theme is one which is conspicuous in the lack of a majority of authors making overtly racist or ethnocentric statements. This could be due to a genuine lack of racist/ethnocentric attitudes on the part of most creationists or to the conscious avoidance and editing of such comments in their literature. It should be remembered that the table shows only overt references. An author may not explicitly make an assertion, yet still carry these themes implicitly in their arguments. For instance, Schaeffer's major theme is the corruption of modern thought and morality because of
the loss of what he terms the "Christian consensus of the
Reformation". He proposes the embracing of these values by society
as a whole, with Christians on the vanguard of such a movement, as
the only solution to the moral and philosophical poverty which he
perceives. Thus, even though Schaeffer does not explicitly make
racist or ethnocentric statements, his insistence that a thought
system originating in Western Europe (and by no means the only one
existing there or in the United States) is the only hope for the
world is implicitly ethnocentric. So, although we cannot in all
cases in the table dismiss the absence of an overt assertion,
neither can we assume that the attitude is not present implicitly.

The specificity of the creationists' argument can also lead to
missing "responses" in the table. In the case of John Morris, he is
relatively silent on issues of social ideology and images of
evolution. This is not because he is atypical but because of the
very specific focus of his book—discussion of dinosaur and human
footprints which he says occur together in a riverbed in Texas.
Consequently he concentrates on the footprints much more than on
ideology. Absent from a few less categories is Duane Gish who,
though his book is more general than John Morris's, is still
specifically concerned with fossils rather than with the
creation/evolution controversy in general. Thus, many of the empty
spaces in the table are accounted for by the degree of specificity
in a monograph as well as the construction of the table using only
overt references.
APPENDIX B:

CREATIONIST ORGANIZATIONS

American Scientific Affiliation  
500 Melrose Court  
Elgin, Ill. 60120

Bible-Science Association  
2911 East 42nd Street  
Minneapolis, Minn. 55406

Biblical Creation Society  
51 Cloan Crescent  
Bishopbriggs  
Glasgow, Scotland G64 2HN

Creation-Life Publishers  
P.O. Box 15666  
San Diego, Ca. 92115

Creation Research Society  
2717 Cranbrook Road  
Ann Arbor, Mich. 48104

Creation Science Association  
18346 Beverly Road  
Birmingham, Mich. 48009

Creation Science Association  
2825 Riva Ridge Circle  
Cottage Grove, Wisc. 53527

Creation Science Association of Alberta  
P.O. Box 9075 Station "E"  
Edmonton, Alta. T5P 4K1

Creation Science Association of Australia  
P.O. Box 302  
Sunnybank, Queensland, Australia 4109

Creation Science Association of Canada  
P.O. Box 34006  
Vancouver, B.C. V6J 4M1
Pittsburgh Creation Society
% R. G. Elmendorf
208 S. Magnolia Drive
Glenshaw, Penn. 15116

Students for Origins Research
P.O. Box 203
Goleta, Calif. 93116

(the major portion of this list was provided by Wilbert H. Rusch Sr.
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