AN EXPLORATORY STUDY OF CHILDREN'S IDEAS ABOUT DEATH,
WITH A VIEW TOWARD DEVELOPING AN EXPLANATORY MODEL

DISSERTATION

Presented to the Graduate Council of the
North Texas State University in Partial
Fulfillment of the Requirements

For the Degree of

DOCTOR OF PHILOSOPHY

By

Eddie L. Hargrove, M. A.

Denton, Texas

May, 1979
Hargrove, Eddie L., An Exploratory Study of Children's Ideas About Death, with a View Toward an Explanatory Model. Doctor of Philosophy (Sociology), May, 1979, 112 pp., 33 tables, 3 illustrations, references, 56 titles.

Much research relating to children and death has focused on the age-graded developmental model originally proposed by Nagy in the late 1940s. Children are alleged to pass from an infantile to a mature view, seeing death first as separation, then as the result of intervention by a supernatural being, and finally as an irreversible biological process. Accepted theory for thirty years, scholars have since noted difficulty in duplicating Nagy's findings and have come to question the universal application of the developmental model. Bluebond-Langner proposes an alternative model in which all views of death are present in all stages of development. She maintains that the particular orientation a child displays is a result of personal and social experiences.

In this light, either children's orientations are a function of age, with scientific explanations replacing fantasy, or all views are present in all stages of development. This study tests the arguments of developmental theory by examining the views of a sample of 124 children ages 12 and 13. The results adduce evidence either to the developmental view or to Bluebond-Langner's contention that such an explanation is too simplistic.
The findings challenge a fundamental assumption of developmental theory, by showing that orientation to death is not necessarily a function of developmental level; thus they provide support for Bluebond-Langner's argument for the saliency of personal and social experiences as determinates of orientation. The arguments of both perspectives fail to convince, however, as each fails to distinguish between what children know about death and the meaning this knowledge has for them.

An explanatory model that takes both knowledge and meaning into account is offered. It is probable that knowledge of death is acquired sequentially, in stages, and that specific meanings are associated with each level of development. New knowledge replaces old; thus the child moves from an elementary comprehension of death to partial understanding, to, at last, complete knowledge. The meaning associated with each stage is retained, not discarded.

When factual knowledge of death is at the elementary level, children are likely to view it as some form of temporary, impermanent separation. As knowledge increases, children discover that death is something more than separation; it is final and nonreversible, but not yet inevitable, at least as far as they themselves are concerned. Children now view death in a more mature manner, but this does not diminish the likelihood that they will simultaneously see it as a type, albeit severe, of separation. Additional knowledge of death
makes possible new and different interpretations, but, while old knowledge is replaced, meanings are retained, so that two meanings of death now exist concurrently. When knowledge is complete, children view death as a natural and inevitable part of the life cycle of all living things. Acquisition of this level of knowledge does not preclude the possibility that children might also interpret death as a form of separation or as the outcome of super-natural activities, for now all views coexist together.

Research in this area is a frustrating enterprise, as measurement and sampling problems are well-nigh insoluble. However, the exploratory research reported here adds much to the understanding of this universal task of children, to come to terms with death, and points up the dimensions of meaning and understanding (affective and cognitive elements) which must be taken into account in any theory.
TABLE OF CONTENTS

LIST OF TABLES ........................................... v
LIST OF ILLUSTRATIONS ................................. vii

Chapter

I. THEORETICAL ORIENTATIONS AND RELATED RESEARCH ........................................... 1

Introduction
Review of the Literature
Summary and Statement of Purpose
Chapter Bibliography

II. METHODOLOGY ........................................ 22

Sample
Questionnaire
Operational Definitions of Variables
Coding
Level of Measurement
Statistics
Data Analysis
Limitations

III. FINDINGS ........................................... 44

Characteristics of the Sample
Developmental Theory and the Bluebond-Langner Model
Influence of Status Variables
Influence of Socializing Agents
Analysis of Variable Interaction
The Effects of Controls
Summary of Findings

IV. SUMMARY AND CONCLUSIONS WITH SUGGESTIONS FOR FUTURE RESEARCH .............. 79

Summary
Conclusions with Suggestions for Future Research
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>V. THE DEVELOPMENT AND TESTING OF AN EXPLANATORY MODEL</td>
<td>91</td>
</tr>
<tr>
<td>The Model</td>
<td></td>
</tr>
<tr>
<td>Testing the Model</td>
<td></td>
</tr>
<tr>
<td>Conclusion</td>
<td></td>
</tr>
<tr>
<td>APPENDIX A--QUESTIONNAIRE</td>
<td>98</td>
</tr>
<tr>
<td>APPENDIX B--CHI SQUARE ANALYSES OF VARIABLES</td>
<td>102</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>109</td>
</tr>
</tbody>
</table>
LIST OF TABLES

Table                                                                 Page

I. Sex and Race, by Age, for Seventh-Grade Sample .................................. 45

II. Distribution of Dependent Variable, Orientation to Death, for Seventh-Grade Sample ... 47

III. Orientation to Death, by Sex and Race, for Seventh-Grade Sample .................. 50

IV. Orientation to Death, by Race, Controlling for Sex, for Seventh-Grade Sample .......... 51

V. Orientation to Death, by Television Exposure: Type and Amount, for Seventh-Grade Sample .... 53

VI. Orientation to Death, by Peer Interaction, for Seventh-Grade Sample .................. 53

VII. Orientation to Death, by Family Interaction, for Seventh-Grade Sample ............... 54

VIII. Orientation to Death, by Personal Experience, for Seventh-Grade Sample .............. 55

IX. Orientation to Death, by Religious Conviction, for Seventh-Grade Sample ............. 56

X. Chi Square Results, Socializing Agent Variables, by Status Variables, for Seventh-Grade Sample ................. 61

XI. Religious Conviction, by Sex, for Seventh-Grade Sample .................................. 61

XII. Television Exposure: Type and Amount, for Seventh-Grade Sample ...................... 62

XIII. Peer Interaction, by Race, for Seventh-Grade Sample .................................... 63

XIV. Chi Square Results, Matrix of Socializing Agent Variables, for Seventh-Grade Sample ....... 64
<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>XV.</td>
<td>65</td>
</tr>
<tr>
<td>XVI.</td>
<td>69</td>
</tr>
<tr>
<td>XVII.</td>
<td>70</td>
</tr>
<tr>
<td>XVIII.</td>
<td>71</td>
</tr>
<tr>
<td>XIX.</td>
<td>72</td>
</tr>
<tr>
<td>XX.</td>
<td>73</td>
</tr>
<tr>
<td>XXI.</td>
<td>75</td>
</tr>
</tbody>
</table>
# LIST OF ILLUSTRATIONS

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Continuum of Religious Conviction</td>
<td>34</td>
</tr>
<tr>
<td>2.</td>
<td>Ranked Classes in Degree of Religious Conviction</td>
<td>35</td>
</tr>
<tr>
<td>3.</td>
<td>Explanatory Model Including Knowledge and Meaning</td>
<td>92</td>
</tr>
</tbody>
</table>
CHAPTER I

THEORETICAL ORIENTATIONS AND RELATED RESEARCH

Introduction

Contemporary discussions and treatments of death and dying are different from those of only twenty years ago. Two decades ago denial of death was almost total. Geoffrey Gorer maintained in his essay "The Pornography of Death" that the acknowledgment of death was for people today the equivalent of the acknowledgment of sex for the Victorians; it was taboo (12). Prior to the 1960s books on death tended to be psychiatric discussions of the "death instinct," the presumed personality distortion caused by an untimely exposure to a death situation, theological essays for religious audiences, anthropological studies of death rituals of primitive people, and a variety of "how to tell children" tracts designed to help children adjust to death situations.

During the late sixties the situation changed and death became a topic of general interest. Led by Kübler-Ross's On Death and Dying (24), the number of death-related books multiplied and were soon followed by articles in magazines, news weeklies, and daily papers intended for the general reader. The major television networks presented "right to die" specials. Death and dying courses were offered in medical
schools, in colleges, and even in some grammar schools. In
sum, death had come out of the closet and had become a topic
of popular and open discussion.

Although the subjects of death and dying have enjoyed an
increase in interest, both popular and scholarly, this interest has not been characterized by the emergence of additional
knowledge about the child's view of death. For example, one
of the more recent and comprehensive treatments of death (37)
devotes an entire chapter to the child's view of death, but
does little more than summarize outdated and highly specula-
tive research and opinion. Clearly, there is a need for
empirical studies in this area. The author of the present
study completed a preliminary investigation of this topic
earlier (14), located appropriate areas of study, and devel-
oped a satisfactory questionnaire. This research will extend
and refine this exploratory work and partially fill the gap
in knowledge in this area of inquiry.

Review of the Literature

Psychoanalytic Studies

The classic Freudian position (8) holds that attitudes
toward death and fear of death are largely secondary phenom-
ena or derivative events. Sentiments about death are
symptomatic of other concerns such as separation anxiety or
conflicts about castration (32, 33). A revisionist view
contends that the opposite may in fact be more accurate.
Death anxiety is seen as a causal factor and is directly associated with depression, psychosomatic symptoms, and psychological disturbances. Feifel (6) and Searies (35) argue, for example, that one of the functions of schizophrenic denial of reality is that it removes the threat of death. Although the revisionists have not as yet addressed their arguments specifically to the child's view of death, they make copious use of their concept to explain the child's reaction to a death situation. An early exposure to death is alleged, variously, to inhibit emotional response, scar the character function of the ego, and adversely affect the maturation process. This may in later life lead to chronic depression, excessive feelings of guilt, a preoccupation with aging and dying, and suicidal tendencies (3, 4, 9, 23, 36).

The studies on which these conclusions are based consist of clinical observations, case materials, and past histories derived from experiences in psychoanalytic therapy. As such, they fail to consider the vast number of persons who have lost parents, siblings, or friends during childhood, suffered no apparent ill effects, and had no need of therapy. The conclusions derived from these studies have little utility for a sociological perspective.

**Nondevelopmental Psychological Studies**

Psychological studies of children and death have been sporadic, exploratory efforts characterized by contradictory results. Three recurring areas of interest are a realistic
versus fantasy approach to death, the finality of death, and fear of death. One of the few areas in which the studies are in general agreement concerns the pragmatic and realistic manner in which children approach death (14, 19, 29, 30, 34, 37). Although reports frequently doubt the ability of the child fully to understand the notion of death, they concede that children are perhaps more realistic in their approach than are adults. Adults seem to regard death as either a taboo or a mystical-religious subject, whereas children are likely to be quite candid and matter-of-fact in their assessments. This may be attributed to socialization, or more correctly in the case of children, to lack of socialization. The child's inclination to view death in a factual, pragmatic manner is a result of not having learned the "acceptable" responses; the socialization experience has not progressed to a level that enables him to interpret and verbalize the dominant social values relating to death (14). It may also be argued that this acceptance of death is evidence of an incomplete understanding of the phenomenon. It is easy to be matter-of-fact about something not fully understood.

Areas of disagreement include questions concerning the finality of death and fear of death. Schilder and Wechsler (34) report that children do not see death as a permanent state of nonbeing. They associate death with deprivation; the dead can neither move nor feel. Since a child's
deprivations are usually encountered within a context of punishment and are not permanent or lasting, he has no consciousness of death, the permanent deprivation. Death, to him, is a reversible or temporary phenomena.

Findings from other research, however, are in sharp disagreement with these conclusions. As early as 1948 Nagy indicated that children believe death to be final and non-reversible (29). Subsequent research tends to support this position, at least among emotionally mature children (10, 14, 15). Pitcher and Prelinger (30) put the issue in perspective by noting that, although younger children tend to see death as reversible, a "stunning" rather than a terminal experience, older children are fully cognizant of the permanence of the condition. More recent research has supported these conclusions (37).

Reports on the questions of children fearing death have proved equally contradictory. The arguments are the following: children have no fear of death because of their temporal orientation; they live in the immediate present and death is too remote and far away to generate any real apprehension (7, 27). Conversely, children are fearful, an attitude learned from adults significant in their lives, religious experiences, or personal encounters with death (22, 34). The writer's own experience with an earlier, limited sample was similarly inconclusive; the children were divided equally into those who were fearful and those who expressed no fear
(14). Apparently no single generalization is adequate to encompass the range of alternative emotional responses children display in regard to this variable. The presence or absence of fear is dependent on the emotional and maturational development, religious conviction, and unique life experiences of each child.

In sum, after forty or fifty years of intermittent investigation there are still no firm answers to what psychologists have traditionally viewed as the critical questions concerning children and death. It is possible that all views expressed are correct, that there is among children as diverse a range of opinions, views, and attitudes as is found among adults. Some children may be quite matter-of-fact, even cavalier, in their discussions but be confused about the finality of death and mildly apprehensive at the prospect. Others comprehend perfectly the permanence of the condition and are terrified; still others, comprehending, seem to feel no fear. Apparently any combination of views is possible and has at one time or another been reported in the psychological literature. Most research efforts, however, have been concerned with what children think and feel; determining the how and why of their attitudes has involved a somewhat different perspective and has best been explained, to date, by the developmental theorists.
Developmental Studies

Developmental theorists consider maturation level (roughly approximated by chronological age) to be the best predictor of what death "means" to children. One of the earliest and most enduring of the developmental models comes from Nagy's work with Hungarian children in the years after World War II (24). The work of other scholars (11, 17, 27, 39) appears to duplicate Nagy's findings, and her views have received near-universal acceptance.

Nagy argues for a stage developmental model in which children's comprehension of death becomes progressively more mature and sophisticated as they become older. In stage one, up to age five, there is no biological concept of death, and death is not recognized as being an irreversible process. It is a departure, a separation, with life continuing under somewhat different circumstances, perhaps in a different location.

In stage two, ages five through nine, death is recognized as final but it is also personified. Death is a person, the reaper, death-man, or God, an invisible supernatural entity responsible for the death of all beings. Consistent with this view is the belief that death can be avoided. Death may be final, but since it is caused by a person one may, by wit, wile, or luck, not get caught and thus not have to die.

In stage three, age ten and over, children recognize death as an internal process; it is inevitable, universal,
and it operates within the framework of immutable biological law. When a child reaches this point his conception of death as well as his general view of the world is realistic and stable.

The universality of Nagy's findings has been questioned in recent years. McIntire et al. (26) point out that her analysis is based on postwar Hungarian children whose experiences were singularly unlike those of children in other cultures. McIntire contends, for example, that American children put aside fantasy and focus on "organic decomposition" as early as age three to five. Nagy's subjects do not speak of biological deterioration until stage three. McIntire also finds little evidence that American children personify death as their Hungarian age-counterparts are alleged to have done.

Other critics (13, 28, 31) note similar discrepancies in questioning the universal application of Nagy's model. Implicit in their views is the contention that other variables (social and cultural background, for example) are at least as important as developmental level in determining the child's view of death. This position is supported by Kastenbaum (18) who, while conceding the importance of maturational level, also argues for consideration of such variables as life experiences, individual personality, and the general pattern of communication between parent and child.
Bluebond-Langner (2) echoes these sentiments and at the same time offers the most compelling dissent to the age-graded developmental model so long in favor. She notes that all developmental models assume that at some point in the maturation process the child abandons "childlike," "immature" explanations of death and opts for a "mature," "scientific," and "adult" version. An "adult" conceptualization is in all cases associated with some sort of "scientific" understanding of death; a "childish" approach inevitably involves a fantasy-type explanation.

In other words, as the child grows up, his view of death changes from a notion of death as a reversible process not unlike sleep in another place, the result of being caught by the "bogey-man" or "death-man," to a view of death as an irreversible, universal event, a consequence of being, the result of physiological processes, age, or disease (2, p. 50).

Nagy's age-graded developmental model is appealing in its simplicity; it is logical, consistent with "good sense," and extensively documented. Problems arise, as Bluebond-Langner notes, when the responses given by adults to such questions as "What is death?" and "Are you going to die?" are examined in detail. The typical response is something on the order of "Surely, everyone dies; it's a part of life," without question a mature and realistic expression of opinion. The issue becomes clouded, however, when one considers the findings of Kastenbaum and Aisenberg (20). They report that adult descriptions of death are profuse with such personified images as the grim reaper, the gay deceiver, or the gentle
comforter, concepts more consistent with those of a child of six or seven than with those of a mature adult. Kübler-Ross (24) cites the tendency of terminally ill adults to envision scenes in which a loving God introduces the recently arrived to the marvels of their new heavenly home. This is a view most developmental theorists would attribute to a child of four or five. Bluebond-Langner reports similar results in some of her preliminary work with adolescents and college students.

Bluebond-Langner concludes that the age-graded developmental model, while offering some insight into the phenomena of children's views of death, is in many respects seriously deficient. She concedes that there are three views of death which correspond to the three developmental stages. Death is seen as separation, as the result of intervention by a supernatural being, or as an irreversible biological process. However, she disputes the idea that children pass from an infantile to a mature view, which, once formed, endures for the rest of life. Her own research, plus the findings of Kastenbaum and Kubler-Ross, indicates that the attitudes of children and adults are not as fixed and predictable as is generally supposed. She purposes instead that all views of death are present at all stages of an individual's development.

Children of five speak of death as separation, she maintains, because that is one of their primary concerns. It is
at this point in their lives that they experience their first significant separations, such as going to school or their parents working. Children of seven are less dependent and less affected by the trauma of separation. They see death only as a remote possibility, the result of being overcome by some superior force, God perhaps, or a personified image. Children aged ten and older are expected to conduct and explain scientific experiments in school, to think in terms of cause and effect, to separate fact from fantasy. Thus they describe death as a biological process; this does not, however, preclude the possibility that, like many adults, they simultaneously see death as five-year-olds do, as separation or the result of forces beyond their control. Rochlin (31) and McIntire (26) report that seven-year-olds view death as a biological process and as a result of supernatural forces. Bluebond-Langner (2) reports experiences with terminally ill children of three who recognize that their impending death will be final and irreversible, when, according to developmental theory, they "should" be viewing it as a temporary separation.

In brief, there is documentation sufficient to case doubt on the contentions of developmental theorists. Bluebond-Langner proposes an alternative model in which all views are present in all stages of development. She contends that the particular orientation to death that a child displays reflects not so much age or maturational level as personal and social experiences.
Transposed into research questions, these two positions require one to ask: Are children's orientations to death a function of age, with scientific explanations gradually replacing fantasy? Or, are all views present at all stages, and the particular accounts or explanations children provide reflections not of age but of personal and social experience? Further, assuming for the moment that Bluebond-Langner is correct, what personal and social experiences are likely to significantly affect children's orientations to death? The writer's exploratory study conducted earlier indicated that for the most part children's orientations are reflections of dominant social values and might therefore be considered the result of socializing factors.

**Childhood Socialization**

The literature describing childhood socialization should provide clues to which socializing agents are most pertinent in developing children's attitudes. Socialization is the complex process of behavior whereby a biological being becomes a human being capable of functioning adequately as an individual and as a member of society. In its broadest sense, socialization refers to the sum total of past experiences an individual has had which will in some manner shape his future social behavior. Childhood socialization is described as the process by which the subject acquires the values, attitudes, and ways of thinking that will serve his immediate needs and also prepare him for the next developmental stage (5).
Certain types of groups and institutions can be singled out for the special part they play in the socialization process. Some of the principal agents of socialization, such as the family and church, have a clear obligation to teach new generations acceptable ways of thinking, feeling, and acting. Other agents, peer groups and the mass media, teach incidentally and by example (25). The nature of the tutelage and its impact on the child will vary depending on which agent and which adaptive task is involved. In other words, the importance of the various agents is not constant; each promotes its own values and behavioral patterns and exerts differing influence on the child. A review of the child socialization literature and the writer's own research experience in this area indicate that these socializing agents are likely to critically effect upon the child's orientation to death.

Family.--The family has been central to every model of socialization and child-rearing developed within the behavioral sciences. The family has always assumed ultimate responsibility for teaching the child the essentials of social order and for inculcating values, ideas, and attitudes (16). Family input is minimal, however, as regards the child's view of death. The reluctance on the part of parents to discuss death with their children has been widely reported and was demonstrated in the previously cited pilot study by
the small number of children (eight per cent) who had received an explanation of death from their parents (14). Obviously the family is important to the socialization process, but one might anticipate that in this case other agents will be more strongly associated with children's views of death. This is, of course, a research question.

Peers.—Next to the family the peer group is probably the most influential agent of socialization in the life of a child. From peer group play the child develops ideas about norms, roles, and the expectations of others (16). There is no research illustrating the role that friends might play in developing the child's view of death; indeed there is no suggestion that children even discuss death with their friends. Yet, since children often exchange information on another taboo topic, sex, peer influence may have an equivalent role in providing information concerning death.

Religion.—The effects of the church deserve much more attention than social scientists have given them. Such research as exists indicates that religious education is quite successful in teaching children the verbal distinctions between "right and wrong." They verbalize all the correct values, but there seems to be little internalization or application in the form of conscience or honesty (25). The issue is especially pertinent to the topic of this study because
the church provides such convenient answers to questions of death and dying. It will be useful to determine whether religious instruction has a significant impact on children's views of death.

Television.—The effects of the mass media, television in particular, have stimulated much opinion but less in the way of substantive research. What is known is that the media supplies a virtually limitless supply of aggressive stimulation which the child absorbs and to which he must adapt. Modeling theorists (1) maintain that the child is adopting the aggressive tactics depicted on the screen and becoming hostile and destructive, imitative of his television models. The effect of this exposure, if any, on children's orientations to death is at this time unknown.

Personal experience.—Individual experiences with death are likely to be extremely important. The trauma and subsequent adjustments imposed by the death of a parent or relative are well documented; indeed, they are the cornerstone of the psychoanalytic perspective. The trappings of funeral rituals, prominent display of the corpse, elaborate coffins, the altered manners and voices of mourning adults, are large events in the life of a child. Exposure to these circumstances at an impressionable age must, in one way or another, significantly affect the child's view of death.
Status variables.—The socialization experience is different depending on whether the subject is male or female, black or white. For example, males are taught to be self-reliant, independent, and achievement-oriented while females are trained more for obedience, responsibility, and nurturance (16). Black children are alleged to have far less conviction than whites that they can affect their environments and futures, an outcome of supposedly inadequate socialization (38). If socialization differs by sex and race in these areas, it follows that it could differ in other areas as well. Race and sex may well be predictors of children's views of death.

Summary and Statement of Purpose

Summary

In recent years death and dying has become a topic of popular and scholarly interest, but this interest has resulted in little additional knowledge about the child's view of death. A review of previous research shows that most attention has focused on the age-graded developmental model originally proposed by Nagy in the late 1940s. Children are alleged to pass from an infantile to a mature view, seeing death first as separation, then as the result of intervention by a supernatural being, and finally as an irreversible biological process. Although this was the accepted theory for thrity years, scholars have since noted difficulty in
duplicating Nagy's findings and have come to question the universal application of the developmental model. Bluebond-Langner proposes an alternative model in which all views of death are present in all stages of development. She maintains that the particular orientation a child displays is a result of personal and social experiences, by implication an outcome of socialization. A review of the childhood socialization literature indicates which socializing agents are likely to affect children's orientations to death.

**Purpose**

Alternative views are presented to account for children's acquisition of views concerning death. Children's orientations are either a function of age with scientific explanations replacing fantasy, or all views are present in all stages of development. This study proposes to test the arguments of developmental theory by examining the views of a sample of twelve- and thirteen-year-olds. At this age children are alleged by developmental theorists to have internalized a mature view and to see death as a result of normal physiological processes. The results will adduce evidence either to the developmental view or to Bluebond-Langner's contention that such an explanation is too simplistic. In addition the study proposes to determine which socializing agents are most influential in formulating views of death.
In brief, using the techniques described in the following chapter, this study hopes to achieve these objectives: first, to test the legitimacy of the developmental perspective vis-a-vis the Bluebond-Langner model by determining children's orientations to death; second, to discover which socializing agents or status variables are associated with or predictive of these orientations and to determine, by multivariate analysis, the relative importance of the variables tested.


CHAPTER II

METHODOLOGY

Sample

The usual problems associated with sampling—accessibility, representativeness, and bias—are compounded when the research involves both children and a potentially sensitive subject of investigation. Authorities in control of the logical source of relatively large groups of children, the public schools, are something less than enthusiastic when confronted with requests for cooperation and assistance in a study of children's attitudes toward death. Teachers and administrators are understandably reluctant to involve their students in a study that, however meritorious, is potentially controversial. Initial assurances of administrative cooperation and access to a random sample of sixth- and seventh-graders in Arkadelphia, Arkansas were withdrawn, and other plans had to be made. After a series of similar near misses, limited entry was obtained in the Malvern, Arkansas, Middle School.

Malvern is a city of 8,739 (1970 census), located adjacent to Interstate Highway 30 in southwest Arkansas. It is a modest community consisting primarily of small businesses, light industry, farming, and agricultural support services.
The city has proportionally more blacks than does the state as a whole (22 percent versus 18 percent). It has fewer persons eighteen years of age and younger (29 percent versus 35 percent) and more persons sixty-five years of age and older (15 percent versus 12 percent), compared with the state. Despite these differences, however, Malvern might be described as a typical small city in the southwest portion of Arkansas.

Entry to Malvern Middle School was obtained through the cooperation of a student teacher who at that time was teaching seventh-grade world geography. Geography is a required course for all seventh graders; thus, in a normal day, consisting of six class periods, all seventh-grade students were at one time present and available for questioning. The questionnaires were given to each student at the beginning of class. They were accompanied by brief oral instructions indicating the nature of the task plus assurances that it was not a test and there were no "right" answers. The student teacher provided no further instructions and offered no suggestions or assistance during the time, approximately twenty to thirty minutes, the students were completing the questionnaires. The sample consists, then, of all students in grade seven (N=124) present the day the data were collected in the spring of 1977. A complete description of the sample is included in Chapter III.
Questionnaire

The questionnaire was adapted from one developed for use in an earlier study by the writer involving interviews with twenty-five children of approximately the same age as those involved in this study. That experience provided useful information about the types of questions one can ask children with some expectation of an intelligible response. The study demonstrated that children are quite willing to talk freely about death and that children of this age are capable of reading and responding to questions if they are appropriate to their level of competence.

The nature of the questions utilized is obviously dependent on the purpose of the study. As indicated, the purpose of this investigative effort is, first, to determine the children's orientations to death, and, second, to discover which socializing agents or which status variables might be associated with a particular orientation.

The problems of constructing a questionnaire involve answers to seemingly simple questions: what information is required, and what types of questions will provide the required information? An unfortunate fact of life in social research is that the paramount issue, what information is required, is frequently subjugated to what information is accessible under what limitations. Accessibility and limitations, in turn, affect the actual design of the instrument as well as determining whether interviews or a self-administered
questionnaire is used. As previously discussed, access to children is limited when investigating this subject, so the researchers must obtain the data with minimal visibility and confusion. This precludes interviews, given the constraints of unfunded research; therefore, a questionnaire must be designed in such a way that children can read and answer it themselves. These limitations require that the questionnaire be capable of completion within thirty minutes and be understood by children at various developmental levels, which is to say it must be consistent with their language skills.

Items used in the questionnaire may either be structured, those in which the respondent is allowed a limited number of responses, or unstructured, open-ended questions to which the respondents provide their own answers. Structured items have the advantage of being more comparable from one person to the next as well as being generally easier to analyze; however, they limit respondents to preconceived categories which restrict the variety of response. Unstructured items allow for probing into meaning but require interpretative judgment on the part of the investigator. The questionnaire used in this study is characterized by a predominance of structured items; open-ended questions are used when subjective opinions or meanings are desired.

In sum, the questionnaire is a combination of simple structured and unstructured questions appropriate for the intellectual level and language skills of children aged
twelve and thirteen. It is designed for self-completion in approximately thirty minutes. Some variables are included in the questionnaire which did not prove pertinent to this investigation.

Operational Definitions of Variables

Operational definitions specify the procedures used to identify the variables under consideration. The following discussion explains the rationale for each item and locates the pertinent questions within the questionnaire.

Status Variables

The status variables of age, sex, and race are of course self-identified or categorized and present no special problem. The children answer the questions themselves by marking the appropriate number in the blank space provided (see items 1, 2, and 3, Appendix A).

Orientation to Death

The requirement here is an indication of what death means to children, not what factual information they have at their disposal. Since an unstructured approach is most conducive for ascertaining meaning, the children are simply asked, "What is dead? What does it mean for something to die?" and respond in their own words (see item 11, Appendix A). This approach has the advantage of providing insights into the child's view of the world as well as his orientation
to death. Utilization of open-ended questions, however, presents special problems of investigator bias; these will be addressed in the section on coding below.

Socializing Agents

An examination of the influence of socialization requires some measure of both the frequency and nature of contact with socializing agents. The items associated with each socializing agent that follow are considered appropriate to this purpose.

Television exposure.--The requirements for a measure of the influence of television viewing include an indication of how much television the children watch and the type of programs they prefer. The children are asked how many programs, not hours, they watch every day. Rather than asking them to classify the type of programs they enjoy, they are asked to list their three favorite shows (see items 4 and 5, Appendix A).

Personal experience.--An indication of the children's direct and personal contact with death is required. They are asked if they have ever attended a funeral and if someone they knew very well has died; if so, they are asked their relationship to that person (see items 7 and 9, Appendix A).

Religious conviction.--Church attendance is an obvious indicator of religiosity; however, since attendance is
sometimes forced, this measure is combined with another indicator which illustrates the nature of the children's private relationship with God, if such a relationship exists. They are asked if they ever pray when they are alone (see items 17 and 18, Appendix A).

Peer interaction.—The problem in this case is to devise a measure not just of interaction with peers, but specifically of death-related interaction. The children are asked if they have ever talked about death with their friends. They are also asked where they received most of their knowledge about death; this is a structured question listing various options, including friends (see items 22 and 23, Appendix A).

Family interaction.—As with peers, a measure of death-related, not general, interaction with family is required. The children are asked if they have ever discussed death and dying with any of these persons—father, mother, brothers or sisters. The item asking for sources of knowledge about death which was used with peer interaction is also utilized here; family is included among the options (see items 21 and 23, Appendix A).

Coding

Coding is the process by which the raw data from the questionnaire are assigned numerical value. Once this is done the purely mechanical task of transferring numbers on
the questionnaire to code sheets and they key-punching the data cards, a simple but time-consuming task, completes the process of accumulating and making useful data for computer analysis. As a precaution against transfer error, a twenty percent random sample (N=24) of the questionnaires was drawn. These questionnaires were then checked against the code sheets with no errors reported. The data cards were then key-punched and another twenty percent random sample drawn from the cards. The cards were compared with the code sheets, again with no reported errors.

Several items on the questionnaire present special coding problems. Many of the structured questions are pre-coded and thus create no difficulties. More problematic are several questions which might be described as structured multiple-option items, those which have several options listed and allow the respondents to check one or more, whatever is appropriate to their experiences. These are not pre-coded. In addition, numeric values must be assigned to the wide range of responses produced by unstructured questions, reducing those to a few theoretically significant categories.

**Structured Multiple-Option Questions**

The coding procedure for multiple-option questions is simply to assign a number to each possible response category. For example, one question instructs, "If you have known any of these people and they died, make a check mark next to
their name." The five options are parents, grandparents, relatives, close friends, and never known a person who died. Numbers one through five are assigned to the five categories and one number is used to record a single response—one for parent, two for grandparent, et cetera. If a child has experienced multiple losses (if he has checked more than one name), he is assigned number six, indicating multiple loss. A similar procedure is used for all multiple-option items.

Unstructured Questions

Two open-ended questions require special attention, television programming preference and orientation to death. For television, it is necessary to determine if the children prefer action-oriented violent shows or lighter fare featuring comedy or music. The children are asked to list their three favorite shows; a judgment must then be made as to which of the two categories a particular program belongs, and to which category a given child should be assigned.¹

Violent programming is defined as that in which loss of life or the threat of loss of life as a result of an overt, aggressive act by another person is central to plot development. Examples include "Starsky and Hutch," "The Six Million Dollar Man," "The Bionic Woman," "Charlie's Angels," "Police

¹Since the writer is the father of three children, ages 8, 10, and 12, he is well-acquainted with the content of these programs.
Woman," and "Baa Baa Black Sheep." Nonviolent programming is characterized by the absence of life-threatening situations. Examples include "Family," "Welcome Back, Kotter," "The Waltons," "Happy Days," "Bewitched," "Soul Train," and "The Jacksons." The children are required to list three favorites; if two or more are violent, as operationally defined, the child is categorized as preferring violent programming. If two or more are nonviolent, the child is assigned to the nonviolent category.

Determining the appropriate categories for orientation to death requires a procedure for reducing investigator bias. The children are asked, "What is dead? What does it mean for something to die?" To test the research question responses must be categorized in one of three ways: death is separation, the result of intervention by a supernatural being, or an irreversible biological process. Clearly it is in the researcher's interest that response to this query fall into one of these three categories--thus the potential for investigator bias. To deal with this possible bias a panel of judges was formed consisting of the researcher, two colleagues (assistant professors of Sociology at Henderson State University), and the student teacher who assisted in the data collection. One training session was conducted in which the researcher briefly summarized the pertinent literature and outlined the three orientations to death. The panel then examined each response to the question, "What is dead?" Each
judge indicated to which of the three categories, if any, this response should be assigned. If three of the four judges agreed the response was assigned accordingly. If the panel was split the merits of the various positions were discussed until a consensus was reached.

There was immediate agreement on 89, or about seventy percent, of the responses. Thirty-five others were assigned after brief debate. No consensus was reached on six of the responses, and these were discarded.

The following quotations are taken directly from the questionnaires and serve as examples of the responses and the categories to which they are assigned.

Separation—"They are gone, never see them again . . . They leave earth . . . They go and never come back."

Intervention—"The spirit and soul go to live with God . . . They go to meet Jesus . . . God takes the person away."

Biological Process—"The person stops functioning . . . The heart stops beating . . . They cannot see, hear, breathe, and the heart stops beating."

Level of Measurement

The questionnaire produces data largely at the nominal level of measurement. Unordered or qualitative data of this sort represent measurement in its simplest form; objects are merely categorized into various mutually exclusive classes. It would be advantageous if various dichotomized nominal measures could be combined in some manner to produce ordinal level variables. Ordinal scales classify and order data and
so make possible reference to ranks, "moreness" or "lessness." Ranks have the advantage of taking into account more information than nominal classifications and are clearly preferable. The procedures involved in combining dichotomized measures to produce ordered scales are detailed below.

**Religious Conviction**

Two measures of religious conviction are available, church attendance and solitary prayer. Children are asked if they ever pray when they are alone; answers are classified "yes" or "no." Attendance is dichotomized into "frequent", those who attend at least twice a month, and "infrequent", less than twice a month or never.

An assumption of the existence of an underlying continuum of religious conviction is made. Children who attend church frequently and also engage in solitary prayer are positioned at some unknown point on this continuum; this point may be called $x$.

It may also be assumed that, in terms of religious conviction, children who engage in solitary prayer but do not attend church regularly are roughly equivalent to those who attend more frequently but do not pray. The assumption of equivalence is not unreasonable, for in both cases the presence of one attribute is balanced by the absence or diminution of the other. Children reporting these responses occupy a different position on the continuum, which may be called $y$. 
The presence of only one attribute indicates a lesser degree of magnitude than is the case when both attributes are present; thus, point \( y \) precedes point \( x \) on the continuum.

Children who rarely attend church and never engage in solitary prayer occupy a third position on the continuum, point \( z \). In this case both attributes are absent or diminished, indicating less magnitude than either point \( x \) or \( y \). The relationship between all points on the continuum, illustrated below, may be described as \( z < y < x \).

\[
\text{Low} \quad \underline{z} \quad \underline{y} \quad \underline{x} \quad \text{High}
\]

Fig. 1—Continuum of religious conviction

Three classes are now ranked with respect to the degree to which they possess a certain characteristic, religious conviction. The ranking does not supply any information concerning the magnitude of differences between the classes, only that \( x \) is greater than \( z \) which is greater than \( y \). Nevertheless, this represents a considerable gain in information over nominal scales alone and makes possible more sophisticated statistical analysis.

Since ordinal scales include a record of order, the labels assigned to the classes must preserve this order. The classes derived from combining dichotomized nominal variables and the labels assigned to these classes are presented in Figure 2.
Solitary Prayer

<table>
<thead>
<tr>
<th>Church Attendance</th>
<th>Frequent</th>
<th>Infrequent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High (x)</td>
<td>Moderate (y)</td>
</tr>
<tr>
<td></td>
<td>Moderate (y)</td>
<td>Low (z)</td>
</tr>
</tbody>
</table>

Fig. 2--Ranked classes in degree of religious conviction

Explanations of the procedures involved in combining variables for the other socializing agents will be less comprehensive than those presented here. The logic and procedure are identical in all instances; an underlying continuum is assumed and ranked classes are derived on the basis of attributes present or absent.

Television Exposure: Type and Amount

The purpose here is to produce one measure of children's exposure to television. Two measures of viewing habits are available, the number of programs watched daily and a list of favorite programs. These are dichotomized; a child who watches four or fewer programs is defined as a "light" viewer, whereas five or more programs is defined as "heavy" viewing. Viewing preference is divided into those who prefer "violent" programming and those who prefer "non-violent."

The two dichotomized measures are combined into one ordinal scale as follows: a child classified as a heavy viewer
and preferring violent programs is designated high in exposure. One classified as a light viewer and preferring non-violent programs is designated low in exposure. Moderate exposure is defined as those who either (1) are heavy viewers but prefer non-violent programs or (2) are light viewers who prefer violent programming. Two nominal measures of television exposure are now combined to produce one ordinal level measure; television viewing habits are ranked as high, moderate, or low.

**Personal Experience**

Two indicators of personal experience with death are available—whether or not a child has attended a funeral, and if he has ever experienced the loss of a close friend or relative. The children are classified into those who have experienced only a single loss and those who have had multiple losses. Respondents are designated high in personal experience with death if they have attended a funeral and suffered multiple losses. The children in the low classification are those who never attended a funeral and have experienced one or no losses. Moderates are those who have attended a funeral and had one loss or less, or have never been to a funeral but report multiple losses.

**Peer Interaction**

Death-related peer interaction is indicated by two question. One asks if the respondents ever discuss death
with their friends, yes or no; the other is a forced-choice question asking where they learned most about death, with friends listed as one of the options. Responses to this question are dichotomized into those who responded with "friends" and those who do not. The children are designated as high in peer interaction if they discuss death with their friends and if they report "friends" as a source of information concerning death. The low category is composed of those who indicate they do not discuss death with friends and who do not report friends as sources of information about death. Children in the moderate category are those who report discussions with friends but who do not list friends as significant sources of information, or those indicating no discussions with friends but still listing "friend" as a significant source of information.

**Family Interaction**

Two measures of death-related family interaction are available. One provides an indication of whether or not the respondents ever discuss death with family members; children's answers are classified "yes" or "no." The other is the item used with peer interaction which asks where the child has learned most about death; "family" is another of the options listed as a response to this question. Answers are dichotomized into those who respond with "family" and those who do not. High family interaction is indicated by those who
respond that they discuss death with family members and also report family as a significant source of information. The low category is composed of those who neither report discussions nor list family as an important source of knowledge. Moderates are those who occasionally discuss death with family members but do not list them as sources of information, or those who learn from their families yet do not report conversations about death.

In summary, nominal level measures are dichotomized and then two measures are combined to produce five ordinal scales representative of the socializing agent variables. These ordinal scales make possible more sophisticated statistical analysis.

Statistics

The measurement requirements for parametric statistics, interval level scales, are not met in this study. Thus, the nonparametric test of statistical significance, chi square, and its associated correlation coefficients, the contingency coefficient C and Somer's D, are utilized.

Chi Square

Chi square is a test of statistical significance which determines whether a systematic relationship exists between two variables. Small chi-square values indicate the absence of a relationship, often referred to as statistical independence; larger values imply that a systematic relationship of
some sort exists between the variables. In other words, chi square indicates the probability that the relationship observed in the sample could have occurred by chance when no association exists between the two variables in the population. Chi square itself is not a probability measure, of course, but the size of the chi square can be interpreted as a probability figure by reference to the significance level table. This study will accept as statistically significant those relationships which have only a .05 probability of occurring by chance. This allows the possibility of error five times out of every one hundred, which is deemed an acceptable risk.

Chi square indicates whether variables are independent or related but provides no information concerning the strength of a relationship. This is because chi square is sensitive to such factors as sample size and table size. Several statistics, variations of chi square, adjust for these factors and serve as the basis for assessing the strength of relationships.

**Contingency Coefficient**

C is a measure of association appropriate for use when one or both variables are nominal level. C has a minimum value of zero, but the maximum value it can take depends on the size of the table. For this reason contingency coefficients are not comparable unless they are derived from
contingency tables of the same size. The statistic C is used in this study to assess the strength of relationships between nominal and ordinal level variables.

**Somer's D**

D is a measure of association appropriate for use when both variables are ordinal level. D has a minimum value of -1.0 and a maximum value of 1.0. Its use is not limited to tables of identical size. Somer's D is utilized when measures of strength of association between ordinal level variables are desired.

In sum, chi square is used to determine the existence of a relationship between two variables. The strength of the association of a given relationship is then determined by the use of statistics which may be considered adjusted chi-squares. In the case of nominal/ordinal associations, the contingency coefficient is utilized; Somer's D is used when both variables are measured at the ordinal level.

The actual data manipulation is performed by computer using the SPSS language. SPSS, Statistical Package for the Social Sciences, is a packaged program specifically designed to compute those statistics typically used by social scientists. Subprogram CROSS-TABS is employed. CROSS-TABS computes and displays two-way to n-way crosstabulation tables, tests of statistical significance, and numerous measures of nominal and ordinal association.
Data Analysis

Inferential statistics are used to make statements about the universe from which data are drawn—in other words, to estimate the characteristics of the population from the evidence provided by the sample. Statistical inference is thus a form of inductive reasoning which is based on probability statements. The use of probability implies the risk of error; this risk is known, however, or at least may be estimated. Thus, the researcher can utilize probability statements and, with some confidence, choose between alternative hypotheses. The use of probability for hypothesis testing requires a truly random sample, however, a condition that is not met in this study. Additionally, knowledge in this area of inquiry is sketchy at best; since this investigative effort is largely exploratory, it would be premature to predict specific results. For these reasons this study will neither state nor test specific hypotheses.

The analysis proceeds in five steps which move from simple descriptive tables to bivariate analysis to multivariate analysis. The analysis begins with a complete description of the dependent variable, orientation to death, and the significance of the groupings within its various categories. Orientation to death is composed of three categories which are ranked according to the number of responses in each.

The next section begins bivariate analysis and presents contingency tables depicting joint frequencies of occurrence.
It opens with an analysis of the relationships between the status variables and the dependent variable. This is followed by a section illustrating the associations between the five socializing agent variables and the dependent variable. These sections indicate to what extent the status and socializing agent variables are predictive of the dependent variable.

The next section relates all of the status variables to all of the socializing agent variables. This serves to check the interaction or interrelatedness between the various independent variables.

The final section, multivariate analysis, demonstrates the relationships existing between the status and socializing agent variables while controlling for the effects of the three categories of the dependent variable. A summary is then provided detailing the chain of associations between the variables that affect children's orientations to death.

Limitations

Any research effort is flawed in the sense than the investigator must adjust to the contingencies of the real world. Both measurement and sampling difficulties create the limitations associated with this study.

Measurement of Variables

Children's development of a network of death conceptions is a complex and variable process; unfortunately, the
measuring techniques used in this study do no more than scratch the surface of that process. The gross nature of the measures make it impossible to detect anything other than broad differences in orientation. In measuring personal experience, for example, only one indication of children's exposure to death is obtained. Other life experiences which could sensitize a child to death, such as prolonged separation from parents or illness, are not considered.

While some variables are measured crudely, others are not taken into account at all—for example, individual personality. The child who is "snoopy," adventuresome, or otherwise unique may interpret death differently than his peers. The general pattern of communication and interaction between parent and child might also influence the child's interpretation of death. These and other potentially significant variables remain unexplored.

Sample

Two problems affect the sample. First, it is non-random, prohibiting the use of inferential statistics and thus limiting the generalizations that might be drawn from the study. Second, the study proposes to test a developmental model and yet includes only one age group in the sample, a difficulty which is circumvented by comparing the observed results with the outcomes that would be predicted by developmental theory. This is adequate for an exploratory study such as this one but should be avoided in any larger undertaking.
CHAPTER III
FINDINGS

The analysis which follows is divided into two parts. Part one includes a description of the characteristics of the sample, an examination of data pertinent to the conflicting arguments of the developmental and Bluebond-Langner positions, and a determination of which status and socializing agent variables have value as predictors of children's orientations. Part two includes an examination of the interactive effects produced by the associations between status and socializing agent variables, the outcomes derived from holding constant or controlling for the effects of the three categories of the dependent variable, orientation to death, and a summary of significant findings.

Characteristics of the Sample

Table I illustrates the distribution of status variables for the sample. Sex and age are almost equally distributed among the population: 42 percent are male and 58 percent female; 44 percent are twelve years of age and 56 percent age thirteen.

There is substantial black representation among the sample, which is not surprising in a state with a 18.3 percent black population. The sample is divided into 76 percent white and 24 percent black participants. No other racial or
ethnic groups are represented; this, too, is not unusual since only .3 percent of the state population is composed of racial or ethnic groups other than black.

### TABLE I

SEX AND RACE, BY AGE, FOR SEVENTH-GRADE SAMPLE

<table>
<thead>
<tr>
<th>Age</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>White</td>
</tr>
<tr>
<td></td>
<td>N (%)</td>
<td>N (%)</td>
</tr>
<tr>
<td></td>
<td>124(100)</td>
<td>36(29)</td>
</tr>
<tr>
<td>Twelve</td>
<td>55(100)</td>
<td>16(29)</td>
</tr>
<tr>
<td>Thirteen</td>
<td>69(100)</td>
<td>20(29)</td>
</tr>
</tbody>
</table>

A comparison of the distribution of status variables of the sample with those of the state of Arkansas indicates that in general the sample is representative on these attributes.\(^1\) For the sample, 73 percent are white, 27 percent black. This compares with the state figures of 76 percent white, 24 percent black. The sample is slightly skewed toward females; the sample population is 58 percent female, 42 percent male, while the state is 49 percent female, 51 percent male. However, the sex and race distribution of the sample is in general

\(^1\)The most recent sex, race, and age data available for Arkansas are drawn from the 1970 U.S. Census. Since the sample includes only ages twelve and thirteen in 1977, this sample population would have been five and six years old in 1970; those age data are used in computing the state percentages.
agreement with state patterns. Although there are more thirteen-year-olds than twelve-year-olds within the sample (69 compared to 59), developmentally there is little distinction between these ages, particularly among children at the same grade level. No distinctions are made between the two age groups in the analysis.

### Developmental Theory and the Bluebond-Langner Model

The age-graded developmental model presented by Nagy and others argues that by age nine and older children have internalized a mature view and see death as a result of normal physiological processes. In contention with this view are the assertions of Bluebond-Langner and others who maintain that all views of death are present at all stages of the individual’s development and the orientation a person adheres to at any particular time is influenced by personal experiences and social and cultural variables. If Nagy is correct, the children's responses to the query "What is death, what does it mean to die?" should fall into the category representative of physiological or biological decline—an absence of vital signs, for example. This research, following the lead of Bluebond-Langner, posits that all orientations to death (that is, death as a result of irreversible biological processes, death as separation, and death as a result of intervention by a supernatural being) will be well represented. Table II indicates this is indeed the case; all
three categories of the dependent variable representing orientations to death are adequately represented.

**TABLE II**

**DISTRIBUTION OF DEPENDENT VARIABLE, ORIENTATION TO DEATH, FOR SEVENTH-GRADE SAMPLE**

<table>
<thead>
<tr>
<th>Orientation to Death</th>
<th>Total N (%)</th>
<th>Biological Process N (%)</th>
<th>Separation N (%)</th>
<th>Intervention N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total N</td>
<td>124 (100)</td>
<td>56 (45)</td>
<td>36 (29)</td>
<td>32 (26)</td>
</tr>
</tbody>
</table>

Almost one-half of the sample, 45 percent, responded in a manner which indicated that they see death as the product of biological processes. From a developmental perspective this is not unanticipated: biological processes should be ranked first in number of responses since children of this age are "expected" to have replaced fantasy meanings of death with scientific explanations. What is unusual, again from a developmental point of view, is that over one-half, 55 percent, of the sample cling to an "immature" view and see death as separation or intervention. These findings indicate that the age-graded developmental model alone is inadequate to explain the diversity of children's orientations to death. The findings argue persuasively for the views expounded by Bluebond-Langner.
The study of science and the human body in public school no doubt informs children of the effects of disease and aging. As they are well aware of physiological decline, it is significant that separation, accounting for 29 percent of the sample, ranked second in number of responses. This would indicate that, despite familiarity with the vital biological processes, the children's first reaction to a death-related stimulus is a response implying death as the final, ultimate separation.

Southern Arkansas, while not the heart of the Bible Belt, is close enough to it to be more than adequately represented by a variety of fundamentalist sects, in addition to the usual stern Protestants who keep a majority of the counties "dry" and otherwise ensure the propriety of their peers. Given this socioreligious background it is somewhat surprising that the view of death as intervention by a supernatural being ranks third, with 26 percent, in number of responses. It appears the impact of religious training is not as significant as one might expect given the enthusiasm the resident population displays toward the topic.

In summary, the findings reported in Table II suggest that the age-graded developmental model alone is inadequate for explaining children's orientations to death. The variety of response is consistent with the position of those who argue for the effects of social and cultural factors as determinants of orientations. The children's orientations
to death, composed of three categories ranked according to the number of responses in each, will now serve as the dependent variable. The following sections will examine the influence of status and socializing agent variables on the dependent variable.

Influence of Status Variables

Table III illustrates the relationships between the status variables, sex and race, and the dependent variable, orientation to death. The chi square value of 7.74, significant at the .05 level, indicates that sex and the dependent variable are systematically related. The chi square value of 4.12 reported for race and the dependent variable is not significant; these variables are unrelated.

An examination of percentages in the body of the table suggests that the reported relationship between sex and the dependent variable may be largely explained by the male component. Although the percentages are equally distributed among the dependent variable categories for females, males are overrepresented under biological process and underrepresented in both other categories, especially intervention. This may be indicative of young boys' traditional interest in science and thus a scientific-biological view of death. It may also reflect an equally traditional disinterest in the affairs of religion and thus a tendency to avoid a supernatural explanation of death. In any event, the sex of
children does influence in some manner their orientation to
death.

**TABLE III**

ORIENTATION TO DEATH, BY SEX AND RACE,
FOR SEVENTH-GRADE SAMPLE

<table>
<thead>
<tr>
<th>Orientation to Death</th>
<th>Total</th>
<th>Biological Process</th>
<th>Separation</th>
<th>Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
</tr>
</tbody>
</table>

**Sex**

<table>
<thead>
<tr>
<th>Sex</th>
<th>N (%)</th>
<th>N (%)</th>
<th>N (%)</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>52(100)</td>
<td>31(60)</td>
<td>12(23)</td>
<td>9(17)</td>
</tr>
<tr>
<td>Female</td>
<td>72(100)</td>
<td>25(35)</td>
<td>24(33)</td>
<td>23(32)</td>
</tr>
</tbody>
</table>

\*\(\chi^2 = 7.72, \text{ df } = 2, \ p = .020, C = .24\)

**Race**

<table>
<thead>
<tr>
<th>Race</th>
<th>N (%)</th>
<th>N (%)</th>
<th>N (%)</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>90(100)</td>
<td>42(47)</td>
<td>29(32)</td>
<td>19(21)</td>
</tr>
<tr>
<td>Black</td>
<td>34(100)</td>
<td>14(41)</td>
<td>7(21)</td>
<td>13(38)</td>
</tr>
</tbody>
</table>

\*\(\chi^2 = 4.12, \text{ df } = 2, \ p = .127, C = .17\)

\*\(\chi^2 > 5.99, \text{ df } = 2, \text{ required for significant relationship at the .05 level.}\)

The absence of a relationship between race and the dependent variable is unexpected. However, the strong influence of the male and the relative unimportance of the female component reported in Table III suggests the possibility that the expected relationship between race and the dependent variable is being obscured by the presence of the status variable sex.
Table IV illustrates the relationship between race and the dependent variable while controlling for the sex of the child. The reported chi squares show that for males race and the dependent variable are related, but for females they are unrelated. The percentage distribution among categories of the dependent variable for white males is similar in pattern to that reported for all males in Table III.

**TABLE IV**

ORIENTATION TO DEATH, BY RACE, CONTROLLING FOR SEX, FOR SEVENTH-GRADE SAMPLE

<table>
<thead>
<tr>
<th>Orientation to Death</th>
<th>Total</th>
<th>Biological Process</th>
<th>Separation</th>
<th>Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
</tr>
<tr>
<td>Males</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>36(100)</td>
<td>24(67)</td>
<td>9(25)</td>
<td>3(08)</td>
</tr>
<tr>
<td>Black</td>
<td>16(100)</td>
<td>6(44)</td>
<td>3(19)</td>
<td>6(37)</td>
</tr>
<tr>
<td>*$\chi^2 = 6.60$, df = 2, $p = .036$, C = .33</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Females</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>54(100)</td>
<td>18(33)</td>
<td>20(37)</td>
<td>16(30)</td>
</tr>
<tr>
<td>Black</td>
<td>18(100)</td>
<td>7(39)</td>
<td>4(22)</td>
<td>7(39)</td>
</tr>
<tr>
<td>*$\chi^2 = 1.37$, df = 2, $p = .503$, C = .13</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*$\chi^2 \geq 5.99$, df = 2, required for significant relationship at .05 level.

The distribution is somewhat different for blacks, however, as they more often choose intervention and less often
biological process than do whites. Even among females the proportion or percentage of blacks choosing intervention is greater than the precentage of whites who make that orientation choice.

In summary, Table III reveals a relationship between sex and the dependent variable but no relationship between race and the dependent variable. The strength of the observed relationship appears to be a result of differences in the responses of males. Table IV takes into account the presumed influence of the number of males in the sample and controls for sex. The nonsignificant relationship between race and the dependent variable, orientation to death, then becomes significant for males, but remains nonsignificant for females.

Influence of Socializing Agents

This section examines the relationships existing between the socializing agent variables and the dependent variable. Table V illustrates the impact of exposure to various types and amounts of television programming. The reported chi square is not significant; thus, viewing habits are unrelated to orientation to death. Ninety percent of the sample report moderate to heavy viewing habits. This might account for the lack of association between the variables: television viewing is such a constant that it is unimportant.
TABLE V

ORIENTATION TO DEATH, BY TELEVISION EXPOSURE: TYPE AND AMOUNT, FOR SEVENTH-GRADE SAMPLE

<table>
<thead>
<tr>
<th>Television Exposure: Type and Amount</th>
<th>Orientation to Death</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total N (%)</td>
<td>Biological Process N (%)</td>
<td>Separation N (%)</td>
<td>Intervention N (%)</td>
</tr>
<tr>
<td>High</td>
<td>45(100)</td>
<td>19(42)</td>
<td>12(27)</td>
<td>14(31)</td>
</tr>
<tr>
<td>Mod</td>
<td>67(100)</td>
<td>29(43)</td>
<td>22(33)</td>
<td>16(24)</td>
</tr>
<tr>
<td>Low</td>
<td>12(100)</td>
<td>8(66)</td>
<td>2(17)</td>
<td>2(17)</td>
</tr>
</tbody>
</table>

$\chi^2 = 3.39$, df = 4, $p = .494$, D = .06

Table VI indicates that there is no significant relationship between the amount of death-related interaction with peers in which children engage and their own orientations toward death.

TABLE VI

ORIENTATION TO DEATH, BY FAMILY INTERACTION, FOR SEVENTH-GRADE SAMPLE

<table>
<thead>
<tr>
<th>Peer Interaction</th>
<th>Orientation to Death</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total N (%)</td>
<td>Biological Process N (%)</td>
<td>Separation N (%)</td>
<td>Intervention N (%)</td>
</tr>
<tr>
<td>High</td>
<td>7(100)</td>
<td>3(42)</td>
<td>2(29)</td>
<td>2(29)</td>
</tr>
<tr>
<td>Mod</td>
<td>77(100)</td>
<td>34(44)</td>
<td>21(27)</td>
<td>22(29)</td>
</tr>
<tr>
<td>Low</td>
<td>40(100)</td>
<td>19(48)</td>
<td>13(32)</td>
<td>8(20)</td>
</tr>
</tbody>
</table>

$\chi^2 = 1.09$, df = 4, $p = .895$, D = .00
Only 6 percent of the sample fall into the high category, indicating that 94 percent of the sample rarely discuss death with their friends, nor do they consider them as sources of information concerning death.

As Table VII reports, there is no relationship between death-related family interaction and the dependent variable. Unlike Table VI, the percentage distributions of the socializing agent variable are in this case equally distributed among the high, moderate, and low categories. Apparently the children are more likely to discuss death with family members than with friends. This familial interaction does not, however, significantly affect which orientation to death is chosen.

**TABLE VII**

**ORIENTATION TO DEATH, BY FAMILY INTERACTION, FOR SEVENTH-GRADE SAMPLE**

<table>
<thead>
<tr>
<th>Family Interaction</th>
<th>Orientation to Death</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total N (%)</td>
</tr>
<tr>
<td>High</td>
<td>38(100)</td>
</tr>
<tr>
<td>Mod</td>
<td>59(100)</td>
</tr>
<tr>
<td>Low</td>
<td>27(100)</td>
</tr>
</tbody>
</table>

χ² = 1.14, df = 4, p = .888, D = .00
Table VIII reveals that a statistically significant relationship exists between personal experience and the dependent variable. Somer's D indicates that the strength of the observed relationship is .21. An examination of the body of the table indicates that the strength of the relationship lies in the moderate and low components. The percentage for the high element, for example, are almost equally divided among the dependent variable categories, whereas the moderate and low elements are concentrated under biological process. Thus children who have had a great deal of personal experience with death also display a variety of orientations toward death, whereas children with less experience are more likely to be represented by a biological view.

TABLE VIII
ORIENTATION TO DEATH, BY PERSONAL EXPERIENCE, FOR SEVENTH-GRADE SAMPLE

<table>
<thead>
<tr>
<th>Personal Experience</th>
<th>Orientation to Death</th>
<th>Total N (%)</th>
<th>Biological Process N (%)</th>
<th>Separation N (%)</th>
<th>Intervention N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td></td>
<td>70 (100)</td>
<td>24 (34)</td>
<td>24 (34)</td>
<td>22 (32)</td>
</tr>
<tr>
<td>Mod</td>
<td></td>
<td>43 (100)</td>
<td>25 (58)</td>
<td>8 (19)</td>
<td>10 (23)</td>
</tr>
<tr>
<td>Low</td>
<td></td>
<td>11 (100)</td>
<td>7 (64)</td>
<td>4 (36)</td>
<td>0 (00)</td>
</tr>
</tbody>
</table>

χ² = 10.55, df = 4, p = .032, D = .21
As a tentative explanation, children who had a great deal of personal experience with death have obviously had more exposure to the different orientations. Some may have poignant recollections of the pangs of ultimate separation while others may have been impressed by clerical pronouncements of "God's Will" so frequently offered in funeral eulogies. It follows, then, that these children display a variety of orientations. Conversely, children with less experience have been confronted with neither the trauma of separation nor the lessons of religion; consequently, they are more likely to be represented by the less emotional biological orientation.

Table IX shows that religious conviction is significantly related to the dependent variable. Somer's D, however, indicates an association of only .14.

<table>
<thead>
<tr>
<th>Religious Conviction</th>
<th>Orientation to Death</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total N (%)</td>
</tr>
<tr>
<td>High</td>
<td>39(100)</td>
</tr>
<tr>
<td>Mod</td>
<td>58(100)</td>
</tr>
<tr>
<td>Low</td>
<td>27(100)</td>
</tr>
</tbody>
</table>

\( x^2 = 14.32, \ df = 4, p = .006, D = .14 \)
The percentage distributions in the body of the table deserve attention. Those children who are very religious, for example, choose an intervention view of death. This is consistent with Christian theology which contends that all things exist by the grace of God. For children who are very religious a view of death as the result of intervention by a supernatural being is unsurprising. On the other hand, those children who profess no strong religious beliefs are represented by a biological process view. This, too, is consistent: those who are less religious are likely to discount a religious-intervention view of death.

Also of interest are the consistent percentages reported in the separation column. This would indicate that there is a sub-group of children who, no matter how religious they might be, continue to see death as separation. For these children religion does not appear to be at all material to their orientation to death.

In summary, the reported chi squares show that two socializing agent variables, personal experience and religious conviction, are significantly related to the dependent variable, orientation to death. The reported D's, .21 and .14 respectively for personal experience and religious conviction, indicate that personal experience is the more strongly related of the two. The reported chi squares for variables indicative of television viewing habits, peer interaction, and family interaction are not significant, and
these variables are thus unrelated to the dependent variable in this sample.

Previously, a nonsignificant relationship became significant when controlling for the status variable sex (Table IV). That procedure was repeated for all nonsignificant relationships in this instance, but without changing the significance level. The procedure was repeated while controlling for race, but again the results were negative. Tables illustrating the chi square values obtained are presented in Appendix B.

The analysis to this point indicates that the sex of children in this sample is related to the dependent variable, orientation to death. Race is not related to the dependent variable except when controlling for sex; race is then significant for males only. In addition, two of the socializing agent variables, personal experience and religious conviction, are significantly related to the dependent variable. The findings are that the sex of the children, their race (for males), their personal experiences with death, and their religious convictions have predictive value for determining their orientations to death.

The sex of the child appears to be the most significant variable. The majority of males take a pragmatic biological view of death while females are divided equally among the three orientations. The saliency of being male is further illustrated when the nonsignificant relationship between
race and the dependent variable becomes significant for males but remains nonsignificant for females. Black males also choose the biological process orientation.

Those children who have had an unusual amount of personal experience with death do not show a preference for a specific orientation. Those with less experience are more likely to be represented by the biological process view. Children who are very religious are likely to see death as the result of divine intervention, whereas those who are less religious discount the religious-intervention orientation in favor of the biological process view.

The findings of part one of the analysis have shown that the contentions of developmental theorists must be viewed with caution. The children in this sample do not adhere to a biological view of death but, rather, report a diversity of viewpoint, unexpected given the tenets of developmental theory. In addition, the sex of the child, race (for males), personal experiences with death, and religious conviction have proven to some extent to be predictive of children's orientations. Since social phenomena usually have multiple causes, however, it would be simplistic to conclude that the predictor variables just described are in themselves sufficient to explain children's orientations. The complexities of the social world require the investigator to ask if individual variables are adequate to explain children's orientations, or if perhaps the predictor variables themselves are
interrelated so that some variables interact in combination with one another to produce the observed results. Resolution of this question will require an examination of all possible relationships between the variables under consideration.

Analysis of Variable Interaction

The interaction between the status variables and the socializing agent variables will be examined first. Table X is a summary table reporting the chi square values obtained when the socializing agents are related to the status variables. Three of the relationships are significant at the .05 level: sex and religious conviction, race and television viewing habits, and race and peer interaction.

TABLE X

CHI SQUARE RESULTS, SOCIALIZING AGENT VARIABLES, BY STATUS VARIABLES, FOR SEVENTH-GRADE SAMPLE

<table>
<thead>
<tr>
<th></th>
<th>Sex</th>
<th>Race</th>
</tr>
</thead>
<tbody>
<tr>
<td>Television Exposure:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type and Amount</td>
<td>3.79</td>
<td>9.74*</td>
</tr>
<tr>
<td>Personal Experience</td>
<td>4.09</td>
<td>1.59</td>
</tr>
<tr>
<td>Religious Conviction</td>
<td>14.33*</td>
<td>0.84</td>
</tr>
<tr>
<td>Peer Interaction</td>
<td>5.57</td>
<td>12.01*</td>
</tr>
<tr>
<td>Family Interaction</td>
<td>1.17</td>
<td>2.15</td>
</tr>
</tbody>
</table>

\[ *\chi^2 \geq 5.99, \text{df} = 2, \text{required for significant relationship at .05 level.} \]
Tables XI, XII, and XIII detail the specifics of these observed associations.

Table XI shows that a moderately strong (C = .32) relationship exists between the variables sex and religious conviction. An examination of percentage distributions shows moderate to be the modal religious category for both sexes. At the extreme females are more heavily represented in the high category while males are concentrated in the low classification. Thus, females are more religious than males.

TABLE XI

RELIGIOUS CONVICTIO, BY SEX, FOR SEVENTH-GRADE SAMPLE

<table>
<thead>
<tr>
<th>Sex</th>
<th>Religious Conviction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total N (%)</td>
</tr>
<tr>
<td>Male</td>
<td>52(100)</td>
</tr>
<tr>
<td>Female</td>
<td>72(100)</td>
</tr>
</tbody>
</table>

χ² = 14.33, df = 2, p = .001, C = .32

The discussion of Table III suggested that the absence of strong religious convictions on the part of males might account for their observed tendency to display a biological process view of death rather than a "supernational" one.
Table XI verifies that males are indeed less religious than females.

Table XII illustrates the relationship between race and television exposure. Eighty-eight percent of whites and 97 percent of blacks fall into the high or moderate category, indicating that both groups devote a rather impressive amount of time to television. The pervasiveness of the habit probably reduces its impact, a possible explanation for the previously reported (Table V) lack of association between television viewing and orientation to death.

**TABLE XII**

**TELEVISION EXPOSURE: TYPE AND AMOUNT, BY RACE, FOR SEVENTH-GRADE SAMPLE**

<table>
<thead>
<tr>
<th>Race</th>
<th>Television Exposure: Type and Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total N (%)</td>
</tr>
<tr>
<td>White</td>
<td>90 (100)</td>
</tr>
<tr>
<td>Black</td>
<td>34 (100)</td>
</tr>
</tbody>
</table>

$\chi^2 = 9.74, \ df = .007, C = .26.$

Both groups are heavily concentrated in the moderate category, but with blacks less so than whites. Whites are more likely to be represented in the high category, indicating that they watch more television than blacks.
Table XIII shows that the association between race and peer interaction is slightly stronger than that reported between race and television viewing, $C = .29$ and $.26$ respectively.

**TABLE XIII**

**PEER INTERACTION, BY RACE, FOR SEVENTH-GRADE SAMPLE**

<table>
<thead>
<tr>
<th>Race</th>
<th>Peer Interaction</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Total N</td>
<td>High N</td>
<td>Mod N</td>
<td>Low N</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(%)</td>
<td>(%)</td>
<td>(%)</td>
<td>(%)</td>
</tr>
<tr>
<td>White</td>
<td></td>
<td>90(100)</td>
<td>6(07)</td>
<td>63(70)</td>
<td>21(23)</td>
</tr>
<tr>
<td>Black</td>
<td></td>
<td>34(100)</td>
<td>1(03)</td>
<td>14(41)</td>
<td>19(56)</td>
</tr>
</tbody>
</table>

$\chi^2 = 12.01$, $df = 2$, $p = .002$, $C = .29$

The lack of representation in the high category shows that peer interaction is not a significant source of information concerning death for either blacks nor whites. The modal category for whites is moderate; for blacks it is low. Thus, while peer interaction does not seem to be particularly important for either group, it is even less important for blacks than for whites.

The interactions among all of the socializing agent variables will now be examined. Table XIV is a summary table reporting the chi square values obtained when all of the socializing agent variables are related to one another. Only
TABLE XIV

CHI SQUARE RESULTS, MATRIX OF SOCIALIZING AGENT VARIABLES, FOR SEVENTH-GRADE SAMPLE

<table>
<thead>
<tr>
<th></th>
<th>Television Exposure: Type/Amount</th>
<th>Personal Experience</th>
<th>Religious Conviction</th>
<th>Peer Interaction</th>
<th>Family Interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Television Exposure</td>
<td>3.13</td>
<td>1.84</td>
<td></td>
<td>6.85</td>
<td>4.72</td>
</tr>
<tr>
<td>Type/Amount</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal Experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Religious Conviction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer Interaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12.02*</td>
</tr>
<tr>
<td>Family Interaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*$\chi^2 \geq 5.99$, df = 2, required for significant relationship at .05 level.*
one relationship, peer interaction and family interaction, is significant at the .05 level.

Table XV illustrates the nature of the relationship between family and peer interaction. The categories of the variable peer interaction have been reduced from three to two. The chi-square test of statistical significance requires that the expected cell frequencies be of a certain size. When they are smaller than minimal the test may not properly be used. Chi-square may be meaningfully employed if fewer than 20 percent of the cells have an expected frequency of less than five and if no cell has an expected frequency of less than one. If these requirements are not met, adjacent categories must be combined in order to increase the expected frequencies in the various cells. In this case the high category, which contained only seven cases, was combined with the moderate category. These categories are also combined in Tables XIX and XX below.

**TABLE XV**

**FAMILY INTERACTION, BY PEER INTERACTION,**  
**FOR SEVENTH-GRADE SAMPLE**

<table>
<thead>
<tr>
<th>Peer Interaction</th>
<th>Family Interaction</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>High</td>
<td>Mod</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
</tr>
<tr>
<td>Moderate</td>
<td>84(100)</td>
<td>27(32)</td>
<td>46(55)</td>
<td>11(13)</td>
</tr>
<tr>
<td>Low</td>
<td>40(100)</td>
<td>11(27)</td>
<td>13(33)</td>
<td>16(40)</td>
</tr>
</tbody>
</table>

\[ \chi^2 = 12.02, \text{ df } = 2, p = .002, D = .22 \]
Somer's D is only .22; thus the variables are related but not strongly. The percentage distribution shows that when the children are moderate in one dimension, peers for example, they are also moderate in the other dimension. The same tendency may be observed for the low category. This indicates that the level of interaction reported for one variable is nearly always balanced by the same level of interaction for the other variable. This indicates that if death is a subject of discussion at all, no matter what the level, there is a good probability that the child will discuss it with both peers and family.

In summary, an analysis of the interaction among all of the variables indicates the following relationships to be statistically significant: race and television viewing habits, race and peer interaction, family interaction and peer interaction, and sex and religious conviction. Of these reported associations all except that between the sex of the child and religious convictions may be dismissed as extraneous to this area of inquiry. This does not mean that these variables are unimportant; indeed, they might prove to be significant factors in determining children's orientations in combination with other variables not yet measured. For example, the variable representative of family interaction fails to take into account the degree to which children are family-centered. A measure of family interaction which distinguishes between closely and loosely knit families might
prove predictive of children’s views. In any event, the variables designated as extraneous comprise what might in this case be described as background associations; those indicative of components significant and typical in the social lives of children but of little utility insofar as a determination of children's orientations to death is concerned.

The association between sex and religious conviction holds promise; both of these variables are related to the dependent variable as well as to one another. It was suggested earlier that the observed tendency of males to be represented by a biological process view might be an outcome of their being less religious. It was then noted that those who are less religious are likely to be represented by a biological view. The reported relationship between the sex of the child and religious conviction appears to support that earlier suggestion: males are significantly less religious than females. The suggested chain of association is as follows: the biological process category is composed of those with few religious convictions, males are less religious than females, and males are heavily represented in the biological category. It appears that the sex of the child influences religious conviction, which in turn affects orientation to death; the biological process category is composed primarily of nonreligious males.
The Effects of Controls

This section begins multivariate analysis; the effects of a given variable will be removed by holding constant or controlling for that variable. This makes visible the more nearly "pure" associations between the other variables under consideration. In this instance the relationships among all variables are examined while controlling for the effects of the three categories of the dependent variable.

The summary Tables XVI and XVII report chi squares obtained while controlling for separation and intervention, respectively.

The results indicate that no significant relationships exist when the effects of these two categories of the dependent variable are taken into account. The lack of significant associations for separation and intervention precludes the possibility that some chain of associations might emerge which could provide insight into the factors that produce these orientations in children. Only in the biological process group have associations developed.

The summary Table XVIII shows that the associations between religious conviction and sex, peer interaction and race, and religious conviction and peer interaction, are statistically significant at the .05 level while controlling for the dependent variable category biological process. Tables XIX, XX, and XXI detail the nature of these observed associations.
TABLE XVI
CHI SQUARE RESULTS, MATRIX OF ALL VARIABLES, FOR CHILDREN IN THE SEPARATION CATEGORY

<table>
<thead>
<tr>
<th></th>
<th>Sex</th>
<th>Race</th>
<th>Television Exposure: Type/Amount</th>
<th>Personal Experience</th>
<th>Religious Conviction</th>
<th>Peer Interaction</th>
<th>Family Interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td></td>
<td>0.02</td>
<td>5.48</td>
<td>1.31</td>
<td>1.19</td>
<td>2.17</td>
<td>4.20</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td>0.69</td>
<td>4.34</td>
<td>2.26</td>
<td>1.65</td>
<td>0.53</td>
</tr>
<tr>
<td>Television Exposure: Type/Amount</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal Experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Religious Conviction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer Interaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family Interaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*\chi^2 \geq 5.99, \ df = 2, \ required \ for \ significant \ relationship \ at \ .05 \ level.

**\chi^2 \geq 9.49, \ df = 4, \ required \ for \ significant \ relationship \ at \ .05 \ level.
<table>
<thead>
<tr>
<th></th>
<th>Sex</th>
<th>Race</th>
<th>Television Exposure: Type/Amount</th>
<th>Personal Experience</th>
<th>Religious Conviction</th>
<th>Peer Interaction</th>
<th>Family Interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>chi</strong>&lt;sup&gt;2&lt;/sup&gt;</td>
<td>5.99</td>
<td>df = 2</td>
<td>required for significant relationship at .05 level.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
<td>4.08</td>
<td>3.12</td>
<td></td>
<td>0.19</td>
</tr>
<tr>
<td>Television</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exposure: Type/Amount</td>
<td></td>
<td></td>
<td></td>
<td>0.37</td>
<td>3.42</td>
<td>5.10</td>
<td>2.41</td>
</tr>
<tr>
<td>Personal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experience</td>
<td></td>
<td></td>
<td></td>
<td>3.27</td>
<td>1.05</td>
<td></td>
<td>5.31</td>
</tr>
<tr>
<td>Religious</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.48</td>
<td>7.86</td>
</tr>
<tr>
<td>Conviction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer</td>
<td></td>
<td></td>
<td></td>
<td>8.63</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
TABLE XVIII

CHI SQUARE RESULTS, MATRIX OF ALL VARIABLES, FOR CHILDREN IN THE BIOLOGICAL PROCESS CATEGORY

<table>
<thead>
<tr>
<th></th>
<th>Sex</th>
<th>Race</th>
<th>Television Exposure: Type/Amount</th>
<th>Personal Experience</th>
<th>Religious Conviction</th>
<th>Peer Interaction</th>
<th>Family Interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>..</td>
<td>0.02</td>
<td>1.99</td>
<td>1.64</td>
<td>9.77*</td>
<td>2.29</td>
<td>1.83</td>
</tr>
<tr>
<td>Race</td>
<td>..</td>
<td>..</td>
<td>5.37</td>
<td>4.41</td>
<td>4.99</td>
<td>14.04*</td>
<td>4.45</td>
</tr>
<tr>
<td>Television Exposure: Type/Amount</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>1.84</td>
<td>6.34</td>
<td>3.49</td>
<td>7.21</td>
</tr>
<tr>
<td>Personal Experience</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>0.48</td>
<td>1.81</td>
<td>0.83</td>
</tr>
<tr>
<td>Religious Conviction</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>15.26*</td>
<td>1.21</td>
</tr>
<tr>
<td>Peer Interaction</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>8.12</td>
</tr>
<tr>
<td>Family Interaction</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
</tr>
</tbody>
</table>

*χ² ≥ 5.99, df = 2, required for significant relationship at .05 level.

**χ² ≥ 9.49, df = 4, required for significant relationship at .05 level.
Table XIX, peer interaction and religious conviction, demonstrates the presence of a relationship that did not exist prior to the introduction of controls. These variables are significantly related only for those children who display a biological process orientation to death.

### TABLE XIX

RELIGIOUS CONVICTION, BY PEER INTERACTION, FOR CHILDREN IN THE BIOLOGICAL PROCESS CATEGORY

<table>
<thead>
<tr>
<th>Peer Interaction</th>
<th>Religious Conviction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total N (%)</td>
</tr>
<tr>
<td>Moderate</td>
<td>37(100)</td>
</tr>
<tr>
<td>Low</td>
<td>19(100)</td>
</tr>
</tbody>
</table>

\[ \chi^2 = 15.25, \text{ df } = 2, \ p = .001, \ D = .43 \]

The percentage distributions show that those who are low in one dimension are also low in the other. For example, those who are less religious do not report significant peer interactions, whereas those who are more religious report somewhat more interaction.

One possible interpretation of these data is that children in this sample recruit their friends from among their fellow worshipers; children who are very religious are more likely to engage in peer interaction than those who are not religious. This is not surprising; friendship ties are
usually developed from among those with whom one has something in common and with whom one has frequent contact. This appears to be another example of background associations; e.g., those that give insights into the children's social networks and locate factors which are indicative of their social interactions but which do not contribute to an understanding of children's orientations to death.

Table XX shows the relationship between peer interaction and race. These data correspond to those reported in Table XIII; in both instances whites are more likely to report death-oriented peer interaction than are blacks. The pertinent factor here is the increase in the strength of the association reported in Table XIII. When controlling for the biological process, category C increases from .29 to .47.

**TABLE XX**

**PEER INTERACTION, BY RACE, FOR CHILDREN IN THE BIOLOGICAL PROCESS CATEGORY**

<table>
<thead>
<tr>
<th>Race</th>
<th>Total N (%)</th>
<th>Moderate N (%)</th>
<th>Low N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>42(100)</td>
<td>34(81)</td>
<td>8(19)</td>
</tr>
<tr>
<td>Black</td>
<td>14(100)</td>
<td>3(21)</td>
<td>11(79)</td>
</tr>
</tbody>
</table>

\( \chi^2 = 14.04, \) df = 1, \( p = .001, \) C = .47
The percentage comparison of tables XIII and XX indicates that those blacks who display a biological process view of death are even less likely to report death-related interactions with peers than are blacks in general. As evidence, the percentages for the low category in Tables XIII and XX are 56 percent and 79 percent, respectively. The distributions for whites remain about the same as previously reported.

In sum, there is a considerable increase in the strength of the relationship when controlling for biological process. In addition, blacks are now even less likely to report peer interaction than was the case before controls were introduced.

The importance of these associations to a determination of children's views of death is unclear. One possible interpretation is that observed racial differences in peer interaction are unrelated to children's orientations to death and are instead merely reflective of race-specific social interaction patterns. In other words, the frequency and importance of peer interaction in the social lives of children are race-related. The differences are apparent; whether or not they are significant in terms of affecting children's views of death is at this point problematic.

Table XXI illustrates the relationship between religious conviction and the sex of the child. In general the relationship is identical to that reported in Table XI; males are less likely to be religious than are females. That tendency is now more pronounced, however, as the strength of the
association has increased from a $C$ of .32 to one of .38. A comparison of the percentage distributions of the two tables (XI and XXI) shows males to be even less religious than before, 35 percent for the low category in Table XI and 48 percent for the low category in Table XXI. The distributions for females are about the same. In brief, the strength of the relationship increases slightly and males are found to be even less religious while controlling for biological process.

**TABLE XXI**

RELIGIOUS CONVICTION, BY SEX, FOR CHILDREN IN THE BIOLOGICAL PROCESS CATEGORY

<table>
<thead>
<tr>
<th>Sex</th>
<th>Religious Conviction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total N (%)</td>
</tr>
<tr>
<td>Male</td>
<td>31(100)</td>
</tr>
<tr>
<td>Female</td>
<td>25(100)</td>
</tr>
</tbody>
</table>

$\chi^2 = 9.77, df = 2, p = .007, C = .38$

These findings are not unexpected; since previous results have shown that males give little evidence of religious conviction it follows that a subgroup expounding a biological point of view will be even less influenced by religion than are males in general. Females are generally more religious and remain so even when the biological view is taken into account. This would seem to indicate that they are less
affected by religion than are males, or, stated differently, there are some females who display a biological orientation to death no matter how religious they might be.

In earlier comments directed to the effects of variable interaction it was suggested that the biological process category was composed predominately of nonreligious males. The sex of the child was alleged to influence religious conviction, which in turn affected orientation to death. The finding that the strength of the relationship between the sex of the child and religious conviction increases when controlling for biological process supports that contention and provides further evidence for the link between these variables and the biological process orientation.

This concludes part two of the analysis. The relationships between all variables were examined in order to determine if the interactive effects among the independent variables could be responsible for the results reported in part one. The analysis produced three statistically significant relationships. Two of these were judged to be background associations, those indicative of components significant and typical in the social lives of children but extraneous to this area of study. The sex of the child and religious convictions, both of which were found to have predictive value in part one, proved to be related to each other. The pattern of the associations suggested that these variables in combination are predictive of the biological process orientation.
The sex of the child influences religious conviction, which affects orientation to death; the biological process category is composed largely of nonreligious males.

Controls were introduced in order to make more visible the associations which might be predictive of specific orientations. No significant associations were reported for the orientations of separation and intervention. Controlling for the biological process orientation produced three significant relationships, two of which were believed to be immaterial to this study. The variables sex and religious conviction were again significantly related; in addition, the strength of the association increased. This provided further evidence that these variables have value as predictors of the biological process orientation.

Summary of Findings

The data show that a significant proportion of the children in this sample do not adhere to the mature scientific view of death that developmental theory predicts. Over one-half of children in the sample see death as separation or intervention. Although these findings do not negate developmental theory, they show that one of the fundamental assumptions of this model is open to discussion and thus lends credence to the arguments of Bluebond-Langner.

The variables sex, race (for males), personal experience with death, and religious conviction have predictive value for determining children's orientations to death. White and
black males prefer the biological process orientation. High levels of personal experiences with death are not predictive of specific orientations; children reporting lower levels are likely to exhibit the biological view. Children who are very religious see death as a result of divine intervention; those who are less religious exhibit the biological process view.

An examination of the interactive effects of the independent variables shows that the predictor variables sex and religious conviction are also related to each other. The pattern of association suggests that the sex of the child affects religious conviction, which influences orientation to death; the biological process category is composed of nonreligious males. When controls are introduced, no significant associations emerge for the separation and intervention orientations. The predictor variables sex and religious conviction are related while controlling for biological process, constituting further evidence for the link between these variables and the biological orientation. Conclusions and implications suggested by these findings are presented in Chapter IV.
CHAPTER IV

SUMMARY AND CONCLUSIONS WITH SUGGESTIONS FOR FUTURE RESEARCH

Summary

For many years the acknowledgement of death has been for Americans the equivalent of acknowledgement of sex for the Victorians: both were taboo. These attitudes have been largely replaced by a lively interest in the subject, surprising in a culture usually portrayed as death denying. Television networks now present "right to die" specials, and death and dying courses are commonplace in medical schools, universities, and even some public schools. This increase in interest, however, has not produced new data relating to children's views of death. Even recent publications do little more than summarize outdated and highly speculative research and opinion. The research reported here extends an earlier study and will partially fill the gap in knowledge in this area of inquiry.

One of the earliest and most enduring explanations of children's views of death was the age-graded developmental model presented by Nagy in 1948. She argued that children's comprehension of death becomes progressively more mature and sophisticated as they grow older. In stage one death is seen
as separation or departure, with life continuing in another location. In stage two children first recognize the finality of death, but they are vague about its causes. Death is personified, an invisible supernatural being responsible for the death of all living things. In stage three children internalize the mature view of death and recognize that it is inevitable, and universal, and operates within the framework of immutable biological law.

Bluebond-Langner argued that the age-graded developmental model alone was insufficient to explain the variety of children's orientations to death. Citing her own research and that of other scholars, she noted that adults frequently give evidence of views consistent with those of young children. She disputed the idea that children progress from an infantile to a mature view, which, once formed, endures for the rest of life; she proposed instead that all views of death are present in all stages of an individual's development. Death is seen as separation, as the result of divine intervention, and as an irreversible biological process. The particular orientation displayed reflects not so much age or developmental level as personal or social experiences, by implication an outcome of socialization. A review of the childhood socialization literature indicates that family, peer group, religious conviction, television, personal experiences, and status variables of race and sex are likely to have a significant effect upon children's orientations to death.
This study had two objectives: first, to determine the fit of the developmental perspective vis-à-vis the Bluebond-Langner model by examining a sample of twelve- and thirteen-year-old children's views of death, and, second, to determine which socializing agents or status variables are associated with these orientations and to determine, by multivariate analysis, the relative importance of the variables tested.

The sample consisted of all students in grade seven (N=124) in Malvern Middle School, Malvern, Arkansas. The sex, race, and age distribution of the sample was consistent with the demographic patterns of the state. The sample population was 42 percent male, 58 percent female; 76 percent white, 24 percent black; and 44 percent age twelve, 56 percent age thirteen.

The questionnaire used in this study was a combination of structured and unstructured questions appropriate for the intellectual level and language skills of children aged twelve and thirteen. Data were for the most part at the nominal level of measurement. These nominal level measures were dichotomized, and two measures were combined to produce five ordinal level scales representative of the socializing agent variables. Chi square was used to determine the existence of relationships between variables. The strength of the association between variables was determined by the Contingency Coefficient for nominal/ordinal data and Somer's D when both variables were ordinal level. The actual data
manipulation was performed by computer using the SPSS language. Data analysis proceeded in five steps, which moved from simple descriptive tables to bivariate analysis to multivariate analysis.

Forth-five percent of the children in the sample viewed death as the end product of an irreversible biological process. Significantly, 55 percent clung to what developmental theorists would describe as immature orientations and viewed death as separation (29 percent) or intervention (26 percent). These findings imply that the age-graded developmental model so long in favor may be inadequate to explain the diversity of children's views. The results argue in support of the position of Bluebond-Langner who stressed the importance of personal and social variables.

The status variable of sex and the socializing agent variables of personal experience and religious conviction proved to be strong predictors of children's orientations to death. The majority of males took a pragmatic biological view of death while females were divided equally among the three orientations. The saliency of the male component of the population was further illustrated when the nonsignificant relationship between race and the dependent variable became significant for males but remained nonsignificant for females. Black males also preferred the biological process orientation. Those children who had an unusual amount of personal experience with death did not show a preference for a specific
orientation. Those with less experience were more likely to be represented by the biological process view. Children who were very religious were likely to see death as the result of divine intervention; those who were less religious favored the biological process orientation.

An examination of the interaction between the status variables and the socializing agent variables showed several relationships to be statistically significant but of dubious explanatory value. One relationship proved important—that between the status variable of sex and the socializing agent religious conviction, both of which were also directly related to the dependent variable, orientation to death. The chain of association suggested that sex explained religious conviction, which in turn explained orientation to death; the biological process view of death is most likely to be the orientation of nonreligious males. Further evidence of the linkage between these variables was provided when controls were introduced. The strength of the relationship between sex and religious conviction increased when controlling for the biological process orientation. No significant relationships emerged when controlling for the separation and intervention orientations.

Conclusions with Suggestions for Future Research

This investigative effort addressed three questions. Are children's orientations to death a function of age, with
scientific explanations gradually replacing fantasy? Or are all views present at all stages of development, with the particular accounts or explanations that children provide reflections not of age but of personal and social experience? Assuming that the latter position best explains the facts, what personal and social experiences are likely to have a significant effect upon children's orientations to death? The findings are often ambiguous, but there is evidence to support several informed conclusions.

Comments will be directed first to the contradictory arguments of developmental theory and Bluebond-Langner. This is followed by a discussion of the variables found to have predictive value. Concluding remarks are directed to findings that are unexpected given the arguments propounded in childhood socialization literature.

Developmental Theory and the Bluebond-Langner Model

A significant proportion of these children do not adhere to the mature scientific view of death that would be predicted from developmental theory. Over one-half of the members of the sample, who at age twelve and thirteen are mature according to the tenets of developmental theory, view death as separation or the outcome of divine intervention. Although this finding does not negate developmental theory (perhaps children in Arkansas "mature" later, although developmental theory is usually presented as being universally applicable),
it at the very least challenges one of the fundamental assumptions of this model.

Confirmation of the Bluebond-Langner model would require a methodological design which would determine if all views are present in individuals at the same time. The questionnaire used in this study provided for only one orientation in each child. Nevertheless, the finding that all views are well represented and that 55 percent of the sample report orientations at variance with the predictions of the developmental model may be interpreted as evidence in support of Bluebond-Langner's position.

Perhaps neither model is adequate to explain how children view death. The deficiencies of both theories center around their failure to distinguish between knowledge and meaning. The first consideration is the nature and amount of factual knowledge about death that children of this age are likely to have. Arkansas school children begin the Berkeley Health Program in grade five and continue through grade seven. Included in this program is a detailed examination of the structure of the human body. Given this scientific background each child in this sample could undoubtedly provide, if asked, a reasonably lucid explanation of biological death. One could safely assume, then, that these children have factual knowledge of death. Indeed, it is likely that most normal children of this age understand the physiological processes involved in death. To this
extent one could probably concede the validity of developmental theory, at least so far as knowledge is concerned. That is, children who are developmentally mature have at their disposal information sufficient for a biological comprehension of death. The larger issue, however, is what death means to children. It is in this area that developmental theory is inadequate, for it fails to distinguish between what children know about death and what death means to them; the two dimensions of the phenomenon are treated as though they were identical. This is a significant oversight because it is subjective meaning, children's own assessments and interpretations, and not factual knowledge that most often guides their behavior. For example, children experiencing the loss of a parent will often assume responsibility for the death when all facts argue the contrary. In sum, developmental theorists have assumed that what children know about death also determines how they view death; but the data do not support this position.

Although developmental level and knowledge do not totally explain children's acquisition of orientations to death, they should not be dismissed entirely. It is probable that there is some linkage between children's knowledge about death and the meaning that death has for them. Indeed, it could be argued that knowledge of a specific orientation is necessary before that orientation could be present. For example, an orientation of separation would require some comprehension
of what separation entails. Similarly, a knowledge and understanding of the physiological processes involved in death would seem to be required before a child could take a biological process view.

Bluebond-Langner ignores the knowledge factor and argues that children view death from all perspectives regardless of their developmental level. But children in the earlier stages of development are clearly not as well equipped to comprehend the factual information associated with death as those who are more mature. To argue so is to ignore the obvious and significant intellectual differences which develop as the child grows older. Since the factual information attained by early maturity is superior to the fund of knowledge a very young child is likely to have acquired, it would seem that the meanings of death for older children must be somewhat different from those of younger children. In other words, Bluebond-Langner may be correct in her assumption that all views are present, but this applies only to older, developmentally mature children. Her contention that all views are present in all stages of children's development is probably not true.

In summary, the findings challenge a fundamental assumption of developmental theory by showing that orientation to death is not necessarily a function of developmental level and thus provide support for those arguing for the saliency of personal and social experiences as determinants of
orientation. The arguments of both perspectives fail to convince, however, as each fails to distinguish between what children know about death and the meaning this knowledge has for them. An alternative model incorporating features of both theories is offered in Chapter V.

**Predictor Variables**

Although the finding that children of the same developmental level display various orientations to death is significant in itself, the discovery of specific variables (personal experience, sex, and religious convictions) predictive of a particular orientation (e.g., biological process) is of substantive importance. Bluebond-Langner hypothesized that personal experiences and social variables would influence children's orientations to death. The research reported here presents empirical evidence to support this contention.

The variables found to possess predictive value are limited in that they explain only the biological process orientation. No significant relationships emerged which describe factors associated with the separation or intervention orientations. Since the presence of these orientations in children of this age is most unusual, given the tenets of developmental theory, research which could provide insights into these perspectives would be fruitful and welcome.

Personal experience requires additional comment because, conceptually, it is different from the other variables.
Personal experience is the only one of the variables to provide a measure of the effect of direct experience with death. The influence of the other variables is tangential rather than direct; for example, one only talks about death with peers whereas one may actually see the corpse when attending a funeral. The effect of personal experience is more immediate and, in the view of many scholars, of long-term significance. The literature makes frequent reference to the deleterious affects of early, repeated, or untimely exposure to death. Exposure appears to have had little effect upon the children in this sample, however, at least in terms of influencing their orientation to death. Those children classified as high in personal experience are distributed equally among the three orientations. Those with less direct experience prefer the biological process orientation.

The technique employed in this study provides an extremely crude measure of experience. A more refined measure detailing the nature of the experience and the time elapsed since the event would add to the fund of knowledge in this area.

**Unexpected Findings**

The family has been central to every model of socialization and child-rearing within the behavioral sciences, and the peer group is generally recognized as the second most influential socializing agent in the life of the child. It
is significant that neither of these variables has predictive value for the children in this sample. This may be a result of methodological weakness, a phenomena peculiar to this sample, or an accurate picture of social reality. Further research could resolve these issues.

Race does not have predictive value insofar as orientation to death is concerned. If orientation to death is largely dependent on social factors—and the findings indicate this to be true—one would expect that differential social experiences and the unique social position of blacks would result in somewhat different perspectives on death. This did not prove to be so; future research emphasizing racial differences in perspective, should they exist, would be beneficial.
CHAPTER V

THE DEVELOPMENT AND TESTING OF AN EXPLANATORY MODEL

The Model

In Chapter IV it was suggested that neither the developmental nor Bluebond-Langner's theoretical perspective offers an adequate explanation of children's acquisition of orientations to death. The developmental model fails to distinguish between what children know about death and what death means to them; these represent two quite separate dimensions which are treated as if they are identical. By example, children who attain full and complete knowledge of death are implicitly assumed by developmental theory to hold mature scientific views of death; if a child knows that death implies biological destruction, then death means biological destruction. The results of this study demonstrate clearly that death has other meanings for children even when knowledge is complete.

Bluebond-Langner, in arguing for the presence of all meanings of death at all stages of development, ignores the obvious and significant intellectual differences which develop as children age. Since it is probable that there is some linkage between intellectual knowledge of death and the meaning that children associate with death, the additional
knowledge implied by a more mature developmental level would lead to the expectation that the meanings of death for older children are somewhat different from those of younger children. In other words, Bluebond-Langner is probably incorrect in her assumption that all meanings are present in all stages of development.

An explanatory model is needed that takes both knowledge and meaning into account. It is probable that knowledge of death is acquired sequentially, in stages, and that specific meanings are associated with each level of development. New knowledge replaces old; thus, as illustrated below, the child moves from an elementary comprehension of death to partial understanding to, at last, complete knowledge. The meaning associated with each stage is retained, not discarded, as illustrated by the diagram below.

<table>
<thead>
<tr>
<th>Knowledge Dimension*</th>
<th>Separation</th>
<th>Meaning Dimension*</th>
<th>Biological Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary</td>
<td>+</td>
<td>-</td>
<td>~</td>
</tr>
<tr>
<td>Partial</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Complete</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

*(+) indicates presence of the attribute and (-) indicates absence.

Fig. 3—Explanatory model including knowledge and meaning.
When factual knowledge of death is at the elementary level, children are likely to view it as some form of temporary, impermanent separation. This is understandable since one of the adaptive tasks facing children in this period is adjustment to temporary separations (for example, working parents, starting school). Children often have problems with these, let alone the final separation of death. At this level of knowledge other views of death are more abstract and, as a consequence, are poorly understood. Separation is real, but it is experienced frequently (often accompanied by anxiety) and to the child it is an approximation of death.

As knowledge increases, children come to appreciate death as something more than a type of separation. They discover that it is final and nonreversible, a finding that makes death more real and threatening; but personally it remains a remote possibility, the result of being overcome by some larger-than-life force, God perhaps. At the partial level knowledge is insufficient for a biological comprehension of death; children may acknowledge that death is irreversible but it is not yet inevitable, at least as far as they themselves are concerned. The fact that children may now view death in a more mature manner does not diminish the likelihood that they will simultaneously see it as a type, albeit severe, of separation. That is, additional knowledge of death makes possible new and different interpretations, but, although old knowledge is replaced, meanings
are retained so that two meanings of death now exist concurrently.

When knowledge is complete, children view death as a natural and inevitable part of the life cycle of all living things, including themselves. Acquisition of this level of knowledge does not preclude the possibility that children will at various times also interpret death as a form of separation or the outcome of supernatural activities, for now all views coexist together. This model explains why the children in this sample report different orientations to death when they are undoubtedly in possession of factual information concerning death. It has the additional advantage of explaining why children occasionally demonstrate a complete understanding of death and yet behave as if it were reversible or something that happens only to evil or unlucky people.

Testing the Model

This model makes explicit the separation between knowledge and meaning and predicts that the meaning that is attached to death is dependent on the level of knowledge about death. A proper test of this model will involve a determination of (1) the factual knowledge children have of death, (2) the meaning(s) children attach to death, and (3) the linkage between the knowledge possessed and the meaning(s) displayed. Achievement of these objectives will require
agreement as to the specific dimensions of the knowledge and meaning variables, plus resolution of two critical methodological problems.

**Substantive Definitions**

If this model is to be tested by others the dimensions of the variables knowledge and meaning must be made explicit.

**Knowledge**—This variable has three levels, elementary, partial, and complete. A child's knowledge is said to be **complete** when death is recognized as being non-reversible, universal, and inevitable. The child's knowledge is **partial** when death is recognized as being final—the dead are "no more"—but there is no comprehension of universality or inevitability. The child feels he can escape or is immune, as if "this doesn't apply to me." The **elementary** level is defined as the absence of any firm knowledge; death is not recognized as being final, inevitable, or universal. The dead are somehow different, "less alive," but there is no real understanding.

**Meaning**—Death has three meanings for children, separation, intervention, and biological process. Those who view death as **separation** focus on object loss; death means that someone who was once here is now absent, perhaps forever. For children who indicate an **intervention** orientation, death means that an outside external force (God) has interceded and taken life from a person. The **biological process** view
is the most pragmatic of the three; death simply means that the vital processes have ceased.

Methodological Problems

Two problems must be addressed. First, since children begin to recognize death as "something special" even before they have acquired the verbal skills with which to express themselves on the subject, it would seem that the sample should include children as young as age two as well as subjects who are developmentally mature. The problem is that, although the age span is not very large (probably ten years), the differences in developmental level are enormous. The researcher must devise measuring techniques which produce comparable data from samples whose subjects range from non-literate, barely verbal tots to mature children of twelve. A combination of several methods will probably be necessary. Devising these techniques is a frustrating, time-consuming, perhaps impossible task. The difficulties encountered in this area undoubtedly explain why effective measures are not now available.

Second, the accumulation of knowledge about death is related to the child's entire developmental pattern, which of course implies a time dimension. Development is a gradual and cumulative process. The most accurate tool to study process is the longitudinal design in which the same subjects are examined over a number of years. Practical considerations
make the likelihood of longitudinal research, although desirable, extremely remote. A cross-sectional approach which examines different age groups at the same time is quicker and more economical but entails certain risks. The researcher who observes a process at only one point in time cannot assume that the stages of development observed are necessarily sequential; there is no guarantee that persons at the beginning of the developmental process will become like those at the end. Despite this limitation, the cross-sectional design remains an effective tool of investigation for the researcher who is alert to the dangers of misinterpretation. Given the vagaries of funding, to say nothing of the problem of identifying and receiving permission to test a sample of children, this technique is likely to be the one most often employed.

Conclusion

Research in this substantive area, children's conceptions of death, is a particularly frustrating enterprise. As noted above, measurement and sampling problems are well-nigh insoluble. However, although these difficulties severely hamper the testing of models, the exploratory research reported here adds much to an understanding of this universal task of children, to come to terms with death, and points up the dimensions of meaning and understanding (affective and cognitive elements) which must be taken into account in any theory.
APPENDIX A

QUESTIONNAIRE

Schedule No.________

This is not a test; we just want to know how you feel about some things. Choose the best answer for each question and write the number in the blank space provided. Some questions will ask you to write a few words or sentences. Answer these on the blank lines under the question. Thank you for helping.

1. ________ How old are you?

2. ________ Are you:
   1. Male
   2. Female

3. ________ Are you:
   1. White
   2. Black

4. ________ How many TV programs do you watch every afternoon and night?
   1. One or two
   2. Three or four
   3. Five or six
   4. Seven or more
   5. None; never watch TV

5. List three of your favorite TV shows:
   1st __________________________________________________
   2nd __________________________________________________
   3rd __________________________________________________
6. What do you like best about your favorite shows?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

7. ____ Have you ever been to a funeral?
   1. Yes
   2. No

8. ____ Have you ever touched a dead person?
   1. Yes
   2. No

9. If you have known any of these people and they died, make a check mark next to their name.
   ____ parent
   ____ grandmother or grandfather
   ____ relative
   ____ good friend
   ____ I have never known a person who died

10. ____ Is it ever all right for one person to kill another?
    1. Yes
    2. No
    3. I'm not sure

11. What is dead? What does it mean for something to die?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

12. ____ Are you afraid to die?
    1. Yes
    2. No
    3. I'm not sure
13. When you think of your own death, how do you feel?
   1. Sorry and sad
   2. Afraid
   3. Mad
   4. Happy, because I'm still alive

14. If you would give up your life for any of these reasons, write a check mark in the blank space:
   ___ For a person I love a lot
   ___ In a war
   ___ To save someone's life
   ___ I wouldn't ever give up my life for any reason

15. If you think any of these are good reasons for one person to kill another person, write a check mark in the blank space:
   ___ If a policeman was trying to stop a crime
   ___ In a war
   ___ As punishment
   ___ To protect yourself
   ___ To get even with someone
   ___ It is never all right to kill another person

16. Would you kill someone for any of these reasons? If you would, write a check mark in the blank space:
   ___ If I was a policeman
   ___ If I was in a war
   ___ To punish someone
   ___ To protect myself
   ___ To get even with someone
   ___ I would never kill another person

17. How often do you go to church?
   1. Every Sunday
   2. About one or two times a month
   3. Once or twice a year
   4. Never

18. Do you ever pray by yourself?
   1. Yes
   2. No

19. Have you ever thought about killing yourself?
   1. Yes
   2. No
20. If you have thought about killing yourself, what made you think of it?


21. If you have ever talked about death or dying with any of these people, make a check mark next to their names:

   _____ Father
   _____ Mother
   _____ Brother or Sister

22. _____ Have you ever talked about death or dying with your friends?
   1. Yes
   2. No

23. _____ Where did you learn most of what you know about death?
   1. From my family
   2. From friends
   3. From TV and movies
   4. From church
   5. From the death of a friend or relative
   6. From my teacher
   7. I don't remember
APPENDIX B

CHI SQUARE ANALYSES OF VARIABLES

The reported chi squares for the variables indicative of television exposure: type and amount; peer interaction; and family interaction are not significant, and these variables are thus unrelated to the dependent variable in this sample. Controlling for the status variables of sex and race does not affect the outcome; all relationships remain nonsignificant. A chi square score greater than or equal to 9.49, $df = 4$, is required for significant relationships at the .05 level.
ORIENTATION TO DEATH, BY TELEVISION EXPOSURE, TYPE AND AMOUNT, CONTROLLING FOR SEX, FOR SEVENTH-GRADE SAMPLE

<table>
<thead>
<tr>
<th>Television Exposure: Type and Amount</th>
<th>Orientation to Death</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total N (%)</td>
<td>Biological Process N (%)</td>
<td>Separation N (%)</td>
<td>Intervention N (%)</td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>24(100)</td>
<td>13(54)</td>
<td>7(29)</td>
<td>4(17)</td>
<td></td>
</tr>
<tr>
<td>Moderate</td>
<td>24(100)</td>
<td>14(58)</td>
<td>4(21)</td>
<td>5(21)</td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>4(100)</td>
<td>4(100)</td>
<td>0(00)</td>
<td>0(00)</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$\chi^2 = 3.45, \ df = 4, \ p = .485, D = .16, C = .24$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>21(100)</td>
<td>6(28)</td>
<td>5(24)</td>
<td>10(48)</td>
<td></td>
</tr>
<tr>
<td>Moderate</td>
<td>43(100)</td>
<td>15(35)</td>
<td>17(39)</td>
<td>11(26)</td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>8(100)</td>
<td>4(50)</td>
<td>2(25)</td>
<td>2(25)</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$\chi^2 = 4.28, \ df = 4, \ p = .369, D = .02, C = .23$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ORIENTATION TO DEATH, BY TELEVISION EXPOSURE: TYPE AND AMOUNT, CONTROLLING FOR RACE, FOR SEVENTH-GRADe SAMPLE

<table>
<thead>
<tr>
<th>Television Exposure: Type and Amount</th>
<th>Orientation to Death</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Biological Process</td>
<td>Separation</td>
<td>Intervention</td>
</tr>
<tr>
<td></td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
</tr>
<tr>
<td><strong>White</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>38(100)</td>
<td>17(45)</td>
<td>10(26)</td>
<td>11(29)</td>
</tr>
<tr>
<td>Moderate</td>
<td>41(100)</td>
<td>18(44)</td>
<td>17(42)</td>
<td>6(14)</td>
</tr>
<tr>
<td>Low</td>
<td>11(100)</td>
<td>7(64)</td>
<td>2(18)</td>
<td>2(18)</td>
</tr>
<tr>
<td></td>
<td><strong>χ² = 4.91, df = 4, p = .296, D = .01, C = .22</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Black</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>7(100)</td>
<td>2(29)</td>
<td>2(29)</td>
<td>3(42)</td>
</tr>
<tr>
<td>Moderate</td>
<td>26(100)</td>
<td>11(42)</td>
<td>5(19)</td>
<td>10(39)</td>
</tr>
<tr>
<td>Low</td>
<td>1(100)</td>
<td>1(100)</td>
<td>0(00)</td>
<td>0(00)</td>
</tr>
<tr>
<td></td>
<td><strong>χ² = 1.98, df = 4, p = .738, D = .23, C = .23</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ORIENTATION TO DEATH, BY PEER INTERACTION, CONTROLLING FOR SEX, FOR SEVENTH-GRADE SAMPLE

<table>
<thead>
<tr>
<th>Peer Interaction</th>
<th>Orientation to Death</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Biological</td>
<td>Separation</td>
<td>Intervention</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>1(100)</td>
<td>0(00)</td>
<td>0(00)</td>
<td></td>
</tr>
<tr>
<td>Moderate</td>
<td>29(100)</td>
<td>17(60)</td>
<td>6(20)</td>
<td>6(20)</td>
</tr>
<tr>
<td>Low</td>
<td>22(100)</td>
<td>13(59)</td>
<td>6(27)</td>
<td>3(14)</td>
</tr>
<tr>
<td></td>
<td>( \chi^2 = 1.28, ; df = 4, ; p = .863, ; D = .05, ; C = .15 )</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>6(100)</td>
<td>2(34)</td>
<td>2(33)</td>
<td>2(33)</td>
</tr>
<tr>
<td>Moderate</td>
<td>48(100)</td>
<td>17(36)</td>
<td>15(31)</td>
<td>16(33)</td>
</tr>
<tr>
<td>Low</td>
<td>18(100)</td>
<td>6(33)</td>
<td>7(39)</td>
<td>5(28)</td>
</tr>
<tr>
<td></td>
<td>( \chi^2 = 0.37, ; df = 4, ; p = .984, ; D = .04, ; C = .07 )</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ORIENTATION TO DEATH, BY PEER INTERACTION, CONTROLLING FOR RACE, FOR SEVENTH-GRADE SAMPLE

<table>
<thead>
<tr>
<th>Peer Interaction</th>
<th>Orientation to Death</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Biological Process</td>
<td>Separation</td>
<td>Intervention</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
</tr>
<tr>
<td>White</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>6(100)</td>
<td>3(50)</td>
<td>1(17)</td>
<td>2(33)</td>
</tr>
<tr>
<td>Moderate</td>
<td>63(100)</td>
<td>31(49)</td>
<td>18(29)</td>
<td>14(22)</td>
</tr>
<tr>
<td>Low</td>
<td>21(100)</td>
<td>8(38)</td>
<td>10(48)</td>
<td>3(14)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$\chi^2 = 3.61$, df = 4, $p = .460$, D = .15, C = .19</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>1(100)</td>
<td>0(00)</td>
<td>1(100)</td>
<td>0(00)</td>
</tr>
<tr>
<td>Moderate</td>
<td>14(100)</td>
<td>3(21)</td>
<td>3(21)</td>
<td>8(58)</td>
</tr>
<tr>
<td>Low</td>
<td>19(100)</td>
<td>11(58)</td>
<td>3(16)</td>
<td>5(26)</td>
</tr>
<tr>
<td>$\chi^2 = 8.70$, df = 4, $p = .068$, D = .38, C = .45</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ORIENTATION TO DEATH, BY FAMILY INTERACTION, CONTROLLING FOR SEX, FOR SEVENTH-GRADE SAMPLE

<table>
<thead>
<tr>
<th>Family Interaction</th>
<th>Orientation to Death</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total N (%)</td>
<td>Biological Process N (%)</td>
<td>Separation N (%)</td>
<td>Intervention N (%)</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>16(100)</td>
<td>12(75)</td>
<td>1(06)</td>
<td>3(19)</td>
<td></td>
</tr>
<tr>
<td>Moderate</td>
<td>27(100)</td>
<td>13(48)</td>
<td>9(33)</td>
<td>5(19)</td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>9(100)</td>
<td>6(67)</td>
<td>2(22)</td>
<td>1(11)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>( \chi^2 = 4.74, , df = 4, , p = .314, , D = .13, , C = .28 )</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>22(100)</td>
<td>6(27)</td>
<td>9(41)</td>
<td>7(32)</td>
<td></td>
</tr>
<tr>
<td>Moderate</td>
<td>32(100)</td>
<td>11(34)</td>
<td>10(32)</td>
<td>11(34)</td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>18(100)</td>
<td>8(44)</td>
<td>5(28)</td>
<td>5(28)</td>
<td></td>
</tr>
</tbody>
</table>
|                    | \( \chi^2 = 1.58, \, df = 5, \, p = .811, \, D = .12, \, C = .14 \)
### ORIENTATION TO DEATH, BY FAMILY INTERACTION CONTROLLING FOR RACE, FOR SEVENTH-GRADE SAMPLE

<table>
<thead>
<tr>
<th>Family Interaction</th>
<th>Total Biological Process</th>
<th>Separation</th>
<th>Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
</tr>
<tr>
<td><strong>White</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>27 (100)</td>
<td>13 (48)</td>
<td>8 (30)</td>
</tr>
<tr>
<td>Moderate</td>
<td>46 (100)</td>
<td>21 (46)</td>
<td>16 (35)</td>
</tr>
<tr>
<td>Low</td>
<td>17 (100)</td>
<td>8 (47)</td>
<td>5 (29)</td>
</tr>
<tr>
<td></td>
<td>( \chi^2 = 0.32, \quad \text{df} = 4, \quad p = 0.987, \quad D = 0.01, \quad C = 0.06 )</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Black</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>11 (100)</td>
<td>5 (46)</td>
<td>2 (18)</td>
</tr>
<tr>
<td>Moderate</td>
<td>13 (100)</td>
<td>3 (23)</td>
<td>3 (23)</td>
</tr>
<tr>
<td>Low</td>
<td>10 (100)</td>
<td>6 (60)</td>
<td>2 (20)</td>
</tr>
<tr>
<td></td>
<td>( \chi^2 = 3.72, \quad \text{df} = 4, \quad p = 0.444, \quad D = 0.05, \quad C = 0.31 )</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
BIBLIOGRAPHY

Books


**Articles**


