A STUDY OF COGNITIVE AND AFFECTIVE ELEMENTS IN THE RELIGIOUS DEVELOPMENT OF ADOLESCENTS

VOLUME ONE

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ABSTRACT

A review is given of recent writing in religious education with particular reference to research into children's religious attitudes, behaviour and cognition. Key concepts of religious experience, the view of religion as multi-dimensional, and the problem of definition are discussed. The work of Hyde (1965) as a point of departure for the present research is indicated.

A description is given of the development of two attitude scales using the scale discrimination technique, and of the construction and revision of a religious behaviour questionnaire and a religious thinking test. Material for use in individual interviews is described and a small pilot study is reported. Additional instruments to be used in the research are identified, and five general hypotheses to be tested by the research are stated.

A detailed account is given of an empirical experiment in two comprehensive schools in South Yorkshire in which data is obtained from a sample of 2,096 pupils. Marks awarded by a team of judges are shown to be reliable and raw scores from the experiment are analysed by item analysis, analysis of variance and factor analysis. The results are described and discussed; they show statistically significant differences in the test scores for religious attitudes, religious behaviour and religious thinking related to school, school year, and pupil's sex. Three separate components identified by factor analysis are labelled religious behaviour, compassionate attitude, and cognition. The results of follow-up interviews with a cross-section of 58 pupils are analysed and it is demonstrated that pupils have considerable interest in questions of religious belief, interpretation of the Bible, and the significance of religious belief in relation to human suffering.

The aims of religious education in the two schools which participated in the research are evaluated in the light of the research results. Points for further investigation arising from the research are indicated. It is stated in conclusion that clear trends and factors in the cognitive framework of the adolescents' religious world which have been established by this research, provide a strong impetus for curriculum change in religious education in the secondary school.
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ABBREVIATIONS

(1) SCHOOLS

(a) Four schools participated in the research programme during the development of test instruments and materials. These are referred to as:

W. School
X. School
Y. School
Z. School

(b) Two schools participated in the main experiment. These are referred to as:

School A.
School B.

(2) TEST INSTRUMENTS

A set of ten raw scores for each subject was derived from the test battery in the main experiment. These ten scores, or variables, are referred to as:

RA1 - Religious Attitude Questionnaire (Hyde) Part 1.
RA2 - Religious Attitude Questionnaire (Hyde) Part 2.
RAT - Religious Attitude Questionnaire (Hyde) Total.
PSBR - Overt Religious Behaviour.
A2 - Attitude Questionnaire (Mark) Part 2.
AT - Attitude Questionnaire (Mark) Total.
RBH - Religious Behaviour Helpfulness.
RC - Religious Thinking Test.
AH4 - General Intelligence (AH4 Test, Part 1.)
A STUDY OF COGNITIVE AND AFFECTIVE ELEMENTS IN THE RELIGIOUS DEVELOPMENT OF ADOLESCENTS
PART ONE

TOWARDS A PHILOSOPHY OF RELIGIOUS EDUCATION:
CHANGING AIMS IN RELIGIOUS EDUCATION SINCE 1944.
CHAPTER I

THE AIMS OF THIS RESEARCH

Introduction

This study is a descriptive, empirical account of how young people think and feel about religion. Two thousand pupils in two secondary schools in South Yorkshire participated in the research by completing attitude questionnaires, a behaviour scale, a religious thinking test and an intelligence test. A number of pupils were also interviewed individually. The results were given careful statistical analysis and are reported in detail; their educational significance, and possible implications for religious education in the secondary school, are discussed in the final chapter. The three aims of the study are as follows:

1. An empirical experiment.

An open and critical study of religion has a proper place in the curriculum of the secondary school.\(^1\) It requires an approach which teaches pupils to understand the phenomenon of religion by helping them to get on the inside of the subject and by deepening and enlarging their awareness of the significance, importance and value of religion in human experience. Such an approach can be justified on educational grounds but for it to be successful, curriculum material has to be selected which is suitable for pupils at their varying stages of cognitive and affective development. Moreover, the pupils' attitudes to religion, and their thinking about religion are influential factors which must also be taken into account.\(^2\)

The first aim of this research is to set up an empirical experiment which will provide information about religious attitudes, religious behaviour, and religious thinking amongst adolescent pupils. Such information, it is believed, will be of practical relevance for discussing the selection of appropriate curriculum material for religious education in the secondary school.

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2. Note: This is perhaps to state what is obvious. But when teaching religious education in a comprehensive school in Harlow, Essex, these factors seemed to the author to be determinants of success or failure.

A common feature of religious education in English secondary schools is that the majority of pupils appears to dislike the subject and to display a negative attitude towards religion. ³ Hyde (1965) demonstrated a general decline in attitude to religion beginning in the third year of secondary school, and more recently Francis (1976) has shown a decline in attitude to religion beginning in the first year of Junior school. The second aim of this study is to replicate part of Hyde's work by using the attitude to religion questionnaires developed by him, and to ascertain the extent to which the situation described by Hyde still obtains in the 1970s. Comparisons with the findings of Francis will also be made.

3. Religion as ultimate concern.

A limitation of the important work of Hyde is that religion is defined narrowly in terms of church, God and the Bible, and attitude to religion in Hyde's research is equivalent to attitude to institutionalized Christianity. A characteristic of the present research has been to take a wide definition of religion which states that religion is multi-dimensional and includes man's struggle with the ultimate problems of human life. Although it is the case that English children, on the whole, display a negative attitude to traditional, institutionalized Christianity, there is evidence to suggest that they nonetheless, show considerable interest in existential questions concerning man's place in the universe, the problem of suffering, human relationships and the ultimate meaning of life. ⁴ Using this wider, inclusive definition of religion it was decided to study attitudes to old people, to shoplifters and terrorists, and to problems of loneliness and suffering. Whether religion should be defined as uni-dimensional or multi-dimensional is a question to which empirical psychology cannot provide an unambiguous answer. Moreover, prior to any solutions which empirical psychology might provide is the philosophical question

³ The evidence for this is reviewed in Part One, Chapter IV, c.f. Alves 1968, Hyde 1965, Francis 1976.

regarding how religion is to be defined. This important theoretical question has been debated at length in the (American) Journal for the Scientific Study of Religion, and is reviewed below. Some evidence suggests that factors of non-traditional religious behaviour, however, may be significantly related to traditional religious behaviour. The third aim of this research is to enquire whether this is the case.

4. Conclusion.
The general purpose of this research, therefore, is to obtain measures of children's attitudes and thinking towards religious phenomena, defined with reference to institutionalized Christianity, and defined in a non-traditional sense as concern with ultimate questions, and to examine possible inter-relationships which might exist between them. The methodological framework of this study is that of the "synoptic orientation" as described by Hanford (1975) and which is reviewed below. It combines the phenomenological with the empirical; it attempts to get on the "inside" of the religious viewpoint, defined substantively, and to observe and to measure religious behaviour, defined functionally.

5. Note: That is, whether religion is to be defined substantively, or functionally, or phenomenologically or synoptically.
Chapter II

Key Concepts of Religious Experience

The Question of Definition

1. Introduction.
Reference was made in Chapter I to the philosophical question of how religion is to be defined. A broad inclusive definition has been adopted in this study and religion is understood in the traditional sense of church-going, prayer, belief in God, and also in the non-traditional sense of a search for meaning, and ultimate concern. In support of the decision in favour of a wide definition, a review is made in this chapter of several studies which have tested the multi-dimensionality of religion, and of several articles which have discussed the basic question of definition. Particular reference is made to the work of J. Milton Yinger whose inclusive definition of religion has influenced this research. Most of the work reviewed in this chapter is American and has been reported in the Journal for the Scientific Study of Religion. In the next chapter a review is made of several influential British studies which have attempted to delineate key areas of religious experience.

2. Religion as Multi-Dimensional.
The question whether religion is multi-dimensional or uni-dimensional is a fundamental question for the empirical researcher who is attempting to measure religion. An approach popular amongst American researchers is to classify religious experience into several dimensions and then to set up empirical experimental situations using factor analysis to test whether the dimensions can be isolated as separate factors.

(1) Rodney Stark, for example, proposed "a taxonomy of religious experience." He observed that:
"The term religious experience covers an exceedingly disparate array of events; from the vaguest glimmerings of something sacred to rapturous mystical unions with the divine, or even to revelations." Stark's taxonomy was conceived as an,
"... attempt to develop some basic sub-types and ordering dimensions for organising the variety of experiences to which men attach religious definitions."  

2. Ibid. page 40.
3. Ibid. page 40.
Stark's work is an important and valuable attempt to provide a classification which could be available for empirical investigation. He proposed four basic sub-types, namely, the confirming, responsive, ecstatic and revelational. To each of these he provided sub-categories and positive and negative dimensions. The limitation of Stark's taxonomy is that its conceptual analysis is confined to personal religious experiences and wider communal and societal aspects of religious experience are excluded from it. Later, in collaboration with Glock, Stark proposed that within all world religions there are five universal dimensions. They are Ideological (belief), Intellectual (knowledge or cognitive) Ritualistic (overt behaviour traditionally defined as religious), Experimental (experiences defined as religious in the sense of arousing the emotions) and Consequential (the effects of the other four dimensions applied in the secular world).

(2) Using this Glock-Stark typology as a conceptual model, Faulker and De Jong (1966) constructed five Guttman-type scales and suggested that each of the five scales measured separate dimensions of religious behaviour. The work of these researchers suggests that religious experience is multi-dimensional. More recent studies have given further support to this view.

(3) Norton-King (1967) used factor and cluster analysis to establish that religion was multi-dimensional. He constructed a questionnaire containing questions about many aspects of an individual's religious beliefs, attitudes and behaviours and of his involvement in a congregation. The subjects were '575 active and inactive members' of six Methodist congregations in the city of Dallas and its suburbs. Nine dimensions were identified and "presented for further study." They were:— (1) Creedal assent and personal commitment, (2) Participation in congregational

7. Ibid.
activities, (3) Personal religious experience, (4) Personal ties in the congregation, (5) Commitment to intellectual search despite doubt, (6) Openness to Religious Growth, (7) Dogmatism, (7B) Extrinsic Orientation (8) Financial Behaviour, (8B) Financial Attitude, (9) Talking and Reading about religion. In a later study (1969) and using item analysis on the original data, some items were dropped and eleven dimensions were proposed. They were: (1) Creedal assent, (2) Church attendance, (3) Organisational activities, (4) Personal religious experience, (5) Church work with friends, (6) Orientation to religious growth and striving, (7) Orientation to religious security and dogmatism, (8) Extrinsic orientation, (9) Financial support, (10) Talking and reading about religion, (11) Religious knowledge. In further studies the earlier findings were confirmed using wider samples.


(1) King and Hunt themselves recognise the limitations of their methodological approach and offer a wise caution against reading too much significance into their results.

"Dimensions and scales are not things which we discover. They are constructs, relative to and dependent upon the population of subjects, the universe of items, and the analytical procedures (both mathematical and subjective). Change any of the research procedures or the conditions surrounding them, and our findings might change or disappear."

(2) Other researchers have questioned the validity of a multi-dimensional view of religion. Clayton (1971) and Clayton and Gladden (1974) strongly criticised


the claims of Faulkner and Dejong (op.cit.) and came to the conclusion that the most important variable was "a strong ideological factor." Clayton asserted:

"Their construction of separate scales and their designation of these as dimensions suggests an independence which has not, in fact, been demonstrated."\(^{11}\)

(3) Vernon (1962) stated:

"Anyone who attempts to do any extensive research in the area of religion sooner or later runs up against the problem of measuring religion and the many difficulties therein."\(^{12}\)

Vernon reported a small study in which two different measures of "religiosity" were compared. He called these measures the direct and the indirect. To obtain the direct measure Vernon used two direct questions:

(a) How important is religion in your day-to-day living? and (b) How would you rate your feelings toward religion? Vernon says:

"In such questions the researcher sensitizes the respondent to the religious area and asks for a direct answer pertaining thereto."\(^{13}\)

To obtain the indirect measure Vernon used an instrument called "The Twenty Statements Test" (TST) which asks the respondents: "In the space provided below please give twenty different statements in answer to the question, Who am I? Give these answers as if you were giving them to yourself, not somebody else. Write fairly rapidly, for the time is limited." Vernon explains the rationale of the TST as follows:


\(^{13}\) Ibid.
"Since the attention of the respondent is in no way specifically directed to the religious dimension of his self conceptions it would be logical to assume that what the respondent writes on the TST is an expression of identifications important to the respondent, not to the investigator. It is logical to assume that respondents for whom religious identifications are important would voluntarily provide such identifications somewhere among the twenty statements."  

Vernon administered the two test instruments to a sample of 178 students and his findings are of considerable interest. On the direct questions 85% indicated that religion was of moderate or great importance in their day-to-day living. On the TST only 72% made some sort of religious identification. Moreover, no statistically significant association was found between mention of religion on the TST and responses made to the direct questions. Vernon discusses his findings in relation to "public and private religiosity" in America but he draws another important conclusion which is directly relevant to this discussion, namely, that:

"... the nature of the instruments of observation has a great deal to do with the results which are obtained. Considerably different findings resulted from the two instruments used herein. Careless interpretation could have resulted in quite erroneous and contradictory findings."  

(4) The research results reviewed above suggest some but by no means unequivocal support for the view that religious behaviour is best conceptualised as including several separate dimensions. Empirical findings from research into religious behaviour, however, must be viewed with some caution. Results from factor analytic studies, for example, provide useful ways of classifying material but no definitive pronouncements about the nature of religion can be derived from them. Moreover, empirical findings are

15. Ibid.
limited both by the particular population of subjects used in a research design and also by the nature of the measuring instruments used. A more fundamental question for consideration, however, concerns the problem of how religion is to be defined.

4. Defining Religion: The need for a broad view which includes both substantive and functional definitions.

(1) An inclusive, functional definition: Luckmann and Yinger.

(i) Luckmann argues for a definition of religion which takes into account an increasing "privatisation" of religion. He distinguishes between church orientated religious behaviour and an individual system of "ultimate" relevance. 16

"What are usually taken as symptoms of the decline of traditional Christianity may be symptoms of a more revolutionary change: the replacement of the institutional specialisation of religion by a new social form of religion." 17

Discussing the phenomenon of an increasing privatisation of religious behaviour, Luckmann asks:

"What are the norms that determine the effective priorities in the everyday lives of typical members of modern industrial societies? What are the subjective relevance systems that have an overarching, sense-integrating function in contemporary life? How clearly are they articulated in individual systems of "ultimate" significance?" 18

"It is the direct accessibility of the sacred cosmos, more precisely, of an assortment of religious themes, which makes religion today essentially a phenomenon of the private sphere." 19

Luckmann identifies as modern religious themes the phenomena of individual autonomy, self expression, self-realisation, the mobility ethos, sexuality and familism. 20


17. Ibid.

18. Ibid. page 91

19. Ibid. page 103

20. Ibid. chapter 7.
(ii) Yinger (1967) argued the need for a definition abstract enough to emphasise the similarities in what are exceedingly diverse systems of belief and practice.  

He suggested that:

"... religion is a system of beliefs and practices by means of which a group of people struggles with the ultimate problems of human life."  

"A religious man," argued Yinger, "is one who recognises the depths of man's tragedy and the heights of his absurdity."

He continued,

"... but he refuses to accept these facts as the final facts. He sees a crack in the wall, not only for himself, but for others (in the universalistic religions, for all mankind) and seeks to enlarge that crack."

Yinger recognised that:

"... measurements of religious dimensions must be designed to distinguish between a decline in specific religious forms and a general decline in religious involvement."

Glock (1967) in commenting on Yinger's definition, acknowledges Yinger's point that there is probably no one definition of religion about which everyone would agree and that therefore,

"... one should probably not impose general consensus as a definitional requirement."

Moreover, the test of the definition lies in its interpretative power:

"It is to be recognised ... that different approaches to the definitional problem are

22. Ibid.
23. Ibid.
24. Ibid.
possible. What will count in the end is how well any particular definitions and measures will illuminate our understanding of the phenomenon being examined.\textsuperscript{26}

Glock suggests further that the development of concept and measure is only preliminary to further questions, for example, what counts for the quality and degree of religious behaviour which a society or individual exhibits, and what follows because a society or individual is more or less religious?\textsuperscript{27}

Yinger (1969) commented further on the problem of defining religion.\textsuperscript{28} Yinger suggested that if one adopted a functional definition of religion, the crucial question would be:

"How is a person religious?" (that is "what concerns him most fundamentally?") rather than, "How religious is he?"\textsuperscript{29}

By focussing on traditional forms of religious belief and practice one was likely;

"... to miss completely the more ephemeral, the emergent, the poorly institutionalized expressions of ultimate concern"\textsuperscript{30}

Clayton and Gladden (1974) welcomed Yinger's approach.\textsuperscript{31} They suggested that,

"... religiosity is primarily a commitment to an ideology."

Moreover,

"... his or her religiosity (ideological commitment) is determined by the degree of acceptance or non-acceptance of the traditional, and/or non-traditional beliefs indigenous to the Ideology and the salience of those beliefs to

\textsuperscript{26} Glock C. Y. - "Comment on Yinger's Paper" - Journal for the Scientific Study of Religion, 1967

\textsuperscript{27} Ibid.


\textsuperscript{29} Ibid.


\textsuperscript{31} Clayton and Gladden - "The Five Dimensions of Religiosity" 1974, op. cit.
his or her world view."

Commenting on Yinger's functional definition, they note:

"Yinger's approach broadens considerably the types of behaviour considered religious and sensitizes us to the many variations in people's conceptions of the Ultimate. Above all, it moves us away from trying to measure 'religiosity' in the abstract by the dubious procedure of simply measuring those aspects of orthodox Christianity implicitly presumed to be shared by all branches of Christianity."32

Yinger's approach to the definition and measurement of religious behaviour is a creative one. He refers to Langer's view of religion as man's response to chaos33 and to Geertz's view34 that,

"... Chaos threatens to break in upon man at the limits of his analytic capacities, at the limits of his powers of endurance, and at the limits of his moral insight."

Religion is a shared system to deal with these threats. Yinger notes the limitations of traditional approaches to the measurement of religion when the criterion used is the degree of acceptance of traditional forms of belief and practice.35 Yinger regards the fundamental question, therefore, as what counts as religion, that is, how is a man religious, how does he define "chaos" what concerns him most fundamentally, and what follows as a result of these definitions and concerns. Yinger

35. Note: An example of such a limitation is seen in the study of Morton King, 1967 (op. cit.) using sophisticated statistical techniques of factor and cluster analysis he "presented" nine dimensions of religion. Without exception the items listed were concerned with such themes as belief in God, Jesus, Church, faith etc.
15. says, 

"We may discover that there are many hidden religions around us which haven't been apparent because we expected all religions to look like the most familiar ones. I find it helpful to think of everyone or nearly everyone being religious, just as nearly everyone speaks a language. This is an assumption not a demonstrated truth."\(^{36}\)

Although Yinger makes very modest claims for his small study, his method and findings are relevant to this study and have influenced the method of approach which has been adopted. Yinger's method was to invite people "to speak their religion to us" and "uninstructed by our own preconceptions." He used very simple questionnaires which included seven statements to which the subjects were invited to respond "agree" or "disagree" and also four open-ended questions concerned "the basic permanent question for mankind." Four basic themes emerged from the responses to his questionnaires: major social issues, inter-personal relations, individual creativity development, and questions of meaning, purpose, and relationship of man to God. Yinger argues that the following body of knowledge is important for research into the meaning of religion.

"Knowledge of the range of perceptions concerning man's most fundamental problems, the beliefs related to these perceptions, the groups that form with reference to them, and the activities that flow from the perceptions, beliefs and groups, with knowledge of changes in these items through time and comparative information described in terms of structural categories."\(^{37}\)

Yinger's structural approach attempts to isolate the "analytic categories" in order to permit a comparative study of religion in all its diverse forms. His study provided evidence of the existence of what Thomas Luckmann has called "invisible religion".\(^{38}\) Nelson et al (1976) used Yinger's seven-item questionnaire of

37. Ibid.
non-doctrinal religion on a sample of 217 students at Western Kentucky University in 1972, and subjected the results to varimax orthogonal, and oblique rotational factor analysis. Two factors were identified; the first appeared to approximate closely to Yinger's concept of non-doctrinal religion; but the second (with a strong factor loading confined to one item) was not entirely unrelated to it, for the item stressed the "worthwhileness of negative experiences." Nelson and his associates concluded that,

"... non-doctrinal or invisible religion does not form a unitary belief" because "two dimensions of non-doctrinal religion have been identified through factor analysis." Moreover, and this is an interesting and noteworthy point, both factors were significantly related to traditional religious behaviour.

Machalek and Martin (1976) used Yinger's ideas to construct a 27 item questionnaire directed towards a person's ultimate concerns and strategies used for coping with them. Two broad categories of ultimate concerns were extracted from the completed interview schedules of 112 people; these were labelled "transcendent and immanent ultimate concerns."

"Transcendent ultimate concerns imply the existence of a supernatural referent (often God) and are frequently related to an institutionalized religion. Immanent ultimate concerns do not imply a supernatural referent and frequently are unrelated to institutionalized religion. The immanent category is further subdivided into micro-humanist concerns, macro-humanist concerns, material concerns, and existential concerns."  


40. Ibid. page 267

An interesting finding of this study was the relatively small percentage of transcendent responses (17.9%) compared with the much larger percentage of immanent responses (82.1%).

"The inescapable conclusion" was "that those who would study ultimate concerns and the strategies people use to cope with them cannot afford to limit themselves to the sphere of conventional religion."42

(2) Criticisms of functional definitions: Berger.

To speak of the mobility ethos, sexuality, familism (Luckmann), and of concern with major social issues, and the search for ultimate meaning (Yinger), as characterizing the essential meaning of the nature of religion is at best to employ functional definitions of religion, and at worst is so to distort the meaning of the word as to render it devoid of usefulness. This point is discussed by Berger.43

Berger (1974) believes that the use of functional definitions, although predominant at the present time, fails to provide a satisfactory conceptual framework for exploring the most central and important elements of religious phenomena.44

He states that scientific approaches to religion have always alternated between functional and substantive definitions, that is, between defining religion in terms of its social or psychological functions and in terms of its believed contents. Berger is convinced that the scientific (Berger's italics) study of religion:

"... must bracket the ultimate truth claims implied by its subject"

even though scientific method means,

"... the application of logical canons of verification to empirically available phenomena,"

because,

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"... the gods are not empirically available ... neither their nature nor their existence can be verified through the very limited procedures available to the scientist. What is available to him is a complex of human experience and thought that purports to refer to the gods. Put differently, within the framework of science the gods will always appear in quotation marks, and nothing done within this framework permits the removal of these quotation marks."  

Berger cites Rudolf Otto, Gerarda van der Leeuw and Mircea Eliade as prominent examples of scholars who have made use of substantive definitions in their work. He considers that the functional approach was codified in the social sciences by Durkheim, Malinowski and Freud, and cites Robert Bellah (1964) Clifford Geertz and Thomas Luckmann (1967) as contemporary American scholars who employ functional definitions. Bellah, for example, influenced by Paul Tillich, defines religion as:

"A set of symbolic forms and acts which relate man to the ultimate condition of his existence."  

Geertz has a more complex definition:

"... a system of symbols which acts to establish powerful, pervasive, and long lasting moods and motivations in men by formulating conceptions of a general order of existence and clothing these conceptions with such an aura of factuality that the moods and motivations seem uniquely realistic."  

Luckmann characterizes religion as:

"... the transcendence of biological nature."  

Berger is strongly opposed to functional definitions (although he makes it clear that he has a high esteem for ... 

48. Ibid. c.f. Luckmann. T. op. cit.
the work of Bellah, Geertz and Luckmann) on the grounds that they tend to violate the Weberian premise "that any human meaning must, first of all, be understood in its own terms, from within, in the sense of those who adhere to it."49 Whereas substantive definitions of religion include only,

"... such meanings and meaning-complexes as refer to transcendent entities in the conventional sense - God, gods, supernatural beings and worlds. ... "

functional definitions:

"... are likely to include such meaning-complexes as nationalism, or revolutionary faiths, or the mobility ethos."50

In the employment of functional definitions, Berger perceives what he calls a

"quasiscientific legitimation of the avoidance of transcendence."

that is,

"... quasiscientific legitimations of a secularized world view."

It is this ideological use to which functional definitions of religion are often put, which he most deplores.

"The specificity of the religious phenomenon is avoided by equating it with other phenomena. The religious phenomenon is "flattened out." Finally, it is no longer perceived. Religion is absorbed in to a night in which all cats are grey. The greyness is the secularized view of reality in which any manifestations of transcendence are, strictly speaking, meaningless, and therefore (Berger's italics) can only be dealt with in terms of social or psychological functions that can be understood without reference to transcendence." 51

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50. Ibid.
51. Ibid.
The point of Berger's article is to re-affirm the value of a substantive definition of religion.

(3) Criticism of Berger.

(i) Weigert (1974)

Weigert (1974) in reply to Berger's article argued that neither a functional nor a substantive definition was satisfactory. He agreed with the basic methodological view of Berger that a radical sociological empiricism is based on the meanings created and maintained by actors in society. Weigert asserts,

"An empirically grounded sociology cannot be based on any description of human experience as authoritative and eternally normative for theoretical definitions. The most that can be claimed for a sociological definition is that it is contingently and conditionally applicable to human experience in an historically recognisable period."

Weigert argued that Berger's assumption that there is a sui generis human experience which carries its own definition as a religious experience, was unacceptable. There are many forms of religious experience which

"... are not necessarily comparable across actors, societies or eras."

Moreover, the consequences of an experience are a legitimate criterion for actors to use in deciding whether the experience is religious or not.

"It would seem that a definitional procedure which glosses over the issue of consequence as actors strive to discern faithful from


54. Weigert, op. cit.
unfaithful religion, or authentic from inauthentic religion would not be adequate for analysing religion." 55

In short, the application of only a substantive criterion for defining religion is unacceptable because it puts an empirical discipline into the position of "claiming that certain experiences a priori carry their own label, meaning, or essence." 56 On the other hand, the application of too broad a functional definition "eliminates criteria for discerning one phenomenon from another." In Weigert's view, both substance and consequence must be included in the definition of religion. 57

(ii) Grossman (1975) commenting on Berger's definition of religion, points out that Berger's dichotomy of transcendence-religion and daily living is not universally shared. 58 Grossman prefers to define religion:

"... as the system of practices and ideas" or "... mental and psychological devices, which help men overcome, obviate, alleviate, or counteract fear and anxiety and the subjective and physiological effects thereof." 59

He is critical also of Berger's assumption that all of us experience the world in the same way. Grossman states that this is not the case.

55. Weigert, op. cit.

56. Note: Berger is criticised on theological grounds also, for this "implicit theological a priori" - see Cairns D. "The thought of Peter Berger", Scottish Journal of Theology, 27, 1974 and Gill R. "Berger's Plausibility Structures: A Response to Professor Cairns." Scottish Journal of Theology 27, May 1974, No. 2.

57. Note: Weigert proposes a third "arena" for establishing the validity of a definition, namely, the political. He suggests that the definitional issue is resolved by the "power" of the various actors. (Weigert op. cit.) This point, however, is less important than his criticisms of Berger against an a priori definition etc.


"Each of us perceives the world differently, depending upon our experiences, which must necessarily be limited as well as different, and our reactions to these experiences, which cannot always be alike."

Moreover, he disagrees with Berger's assertion that religious institutions "domesticate the ecstacies, channel them into socially acceptable and useful activity."60

"This is really putting the cart before the horse", comments Grossman, "approved personal conduct is not a domestication of religious ecstasy, but rather the latter gives legitimacy to the patterns and objectives of personal conduct. In so doing, religion is exercising one of its most important functions (my italics) that of obviating the anxiety created in decision-making, which daily conduct and the choice of objectives for such conduct involves."61

It is clear that Grossman prefers a functional definition of religion.

The problem of definition is discussed from a different perspective in a valuable article by Hanford (1975).62 He suggests that,

"... perhaps the most important problem in the psychology of religion is that its research orientation is not clear."

He discusses two common research orientations which he labels the phenomenological and the empirical. He refers to the British empirical philosopher, John Locke, as being influential and to "Locke's empirical orientation" as characterized by the claim that "ideas must be capable of being reduced to sensory data", and that "there is no direct access to knowledge and it is obtained only through observation." In contrast to this empirical orientation, the phenomenological tradition is characterized by the view that "ideas cannot be reduced to sensory experience" and

that "direct access to knowledge especially of and by persons is possible." Hanford describes the phenomenological approach as follows:

"Not only do phenomenologists study religious behaviour from the personal perceptions of the religious person, but also their approach allows the subject matter to reveal itself. The phenomenologist then observes or perceives the revelation or manifestation and attempts to receive its meaning."

Although Hanford does not discuss Berger's definition, clearly Hanford understands the phenomenological orientation as a methodological standpoint which demands both a functional and a substantive definition of religion. Both approaches, however, contain problems. The major limitation of the empirical approach is reductionism. An extreme example is the work of Watson who "not only constricted but even denied the existence of religious consciousness and experience and reduced religion to a mere habit."

A more influential researcher, using the empirical approach, is Michael Argyle, and Hanford notes that he employed a very narrow definition of religion. "He limited religion to the religious behaviour of church attendance, for methodological reasons."

"In an effort to eliminate subjective meanings, empiricists have tended to confuse and reduce these meanings to their objective or external manifestation."

The major limitation of phenomenology, on the other hand, is that "it lacks construct and methodological validity." Another difficulty is that "ontological assumptions by phenomenologists are obstacles to verification." If the phenomenologist "exclusively commits himself to such metaphysical assumptions, he eliminates empirical knowledge from his approach." Hanford cites the case study techniques of Freud, Erikson and Rollo May as examples of phenomenological approaches. Hanford proposes a "synoptic orientation" which will overcome the limitations of the

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63. Hanford, op. cit., page 220.
64. Ibid. pages 220 - 221.
66. Hanford, op. cit., page 221.
68. Hanford, op. cit.
empirical and phenomenological approaches.

"The synoptic perspective does not view the two approaches as opposites but as potential complements . . . . This consistent core of knowledge from both orientations constitutes the basis for a synoptic orientation."\(^{69}\)

Hanford claims that the synoptic orientation includes generalisations about large groups of people (nomothetic knowledge) and also it includes a consideration of "the varied and individualised motivations of persons" (idiographic). The advantage of the synoptic view is that it recognises that "the inner regions of life are distinctly personal"; nonetheless, a mark of the synoptist is that he attempts to observe and measure behaviour "which represents this interior." Maslow is cited by Hanford as an example of a researcher who refuted reductionism such as in Argyle's work. He considered a broad view of validity to be necessary for studying peak experiences, especially the religious.

"His broad approach began with the root meaning of validity, which connotes value, and meant that religious experiences could be validated by their intrinsic value, their meaning and worth to the experiencer. Since validity and value were combined, he did not sacrifice value for rigorous validity. Instead, he suggested that knowledge from these peak experiences should be validated by their usefulness. This criterion of internal validity or self-validation still included critical analysis and scrutiny of the results of the experience."\(^{70}\)

The methodological orientation of Hanford is a valuable one. It does not suggest that the question of definition is finally settled but shows that there are clear advantages to the researcher in recognising that the two approaches may be complimentary. This is the view taken in the present research. An empirical approach is used to measure religious attitude, religious behaviour and religious thinking. Nomothetic and idiographic knowledge is obtained and described, and a phenomenological research orientation is adopted which employs both a functional and a substantive definition of religion.

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69. Hanford, op. cit., page 223.

CHAPTER III
KEY CONCEPTS OF RELIGIOUS EXPERIENCE -
RELIGION AS A SUI-GENERIS ACTIVITY AND
RELIGION AS A SEARCH FOR MEANING

Introduction.
In this chapter substantive and functional definitions of religion are further explored and discussed with reference to the work of John Wilson, Ninian Smart, John Macquarrie and others. Four key conceptual areas are identified, namely, religion as a sui-generis activity, religion as historical and para-historical, religion as ultimate concern, and religion as the dimension of mystery. Finally, reference is made to the relevance of sociological and psychological interpretations of religion for the present study.

1. Religion as a sui-generis activity - the notions of awe and worship.
John Wilson discusses the philosophical problem of "sketching out" a sui-generis activity which has a fair claim to be religious. He argues that "any concept of religion as a sui-generis activity ought to rest primarily upon a central emotion, the emotion of awe, and upon a central activity, the activity of worship." He regards the view (e.g. Yinger's) which identifies religious belief with questions of ultimate concern, as mistaken. Such questions are considerably problematic. He considers that religious belief can exist without questions of ultimate concern cropping up at all. He argues that "it is not clear" that there is anything specifically religious about being ultimately concerned, committed or dedicated. He allows, however, that what is being talked of here is the problem of "making sense of the world" and although clearly he does not regard this as part of the subject matter of religion, he does allow that it could find a place in the content of a religious education curriculum. Wilson's view imposes much too strict a limit on the boundaries of "religious" phenomena, but his precise and detailed description of the key concept of religious awe and worship is valuable and of central relevance to this enquiry:

3. c.f. Part One, Chapter IV 3 (8).
1. The notions of awe, worship and reverence are particularly characteristic of the religious attitude.

2. There is nothing profoundly unintelligible or logically mysterious about this attitude.

3. It is logically possible for any object to be an object of awe and worship.

4. We can worship "non-existent" objects, if by "non-existent" is only meant "non-material."

5. It is central to the notion of worship that the object of worship should be conceived as, in some sense, greater, higher, or more important than the human individual or any number of such individuals.

6. Awe is an emotion; and like other emotions, it may be felt unconsciously and unwittingly.

7. Worship is the most natural or characteristic expression of awe. Worship (in the full sense) occurs when a man freely expresses his awe in his deliberate behaviour; and for this to happen, the man must to some degree accept or endorse his feeling of awe - i.e. he must think it right or appropriate in some way to give behavioural form to his feeling.

8. Worship must be formalised to some degree - i.e. certain standardised patterns of ritual and formal behaviour. (N.B. Wilson considers it doubtful that religion must, conceptually, be a social practice).

9. Worship occurs when a person accepts or endorses his feeling of awe "in a very strong and full sense." Since he thinks his awe appropriate to the object, his worship will involve . . . . some celebration of the object - and this will include the formulation and expression of religious beliefs.

10. Worship (without the feeling of awe) is nonetheless a religious activity.

2. Religion as historical and para-historical.

Ninian Smart's characterization of religion is considerably wider than Wilson's. Nonetheless, like Wilson, he attempts to sketch - - -

a taxonomy of religion as a sui-generic activity with its own precise boundaries. Whereas Wilson's taxonomy focusses almost entirely on the activity of worship, Smart includes this ritual dimension of religion as one dimension amongst several others. There is a "multifarious-logic" relating to the dimensions, and there are also "untidinesses". For example, religious art and music, and symbolism do not fit neatly into his categories. Smart himself admits the crudity and untidiness of his model but sees its value as a framework for discussing the complexities of religious phenomena. He makes a further distinction between what he calls external and internal explanations. An internal explanation attempts to show the connection between items in one dimension and items in another. For example, reference to religious ritual can illustrate religious myth. An external explanation attempts "to show how religious items are shaped by structures not in themselves falling wholly within the territory marked out by the definition of religion." For example, sociological factors external to religion can have considerable influence upon religious belief and organisation. Yinger's themes (c.f. Part One, Chapter II, 4(1) above) particularly the first three, fall therefore, within the area of external explanation (in terms of Smart's schemata) rather than within the dimensions of religion per se. Smart's discussion of religion as "a multi-dimensional thing" provides a useful and comprehensive framework for analysing religious phenomena.

1. **Doctrinal Dimension:** Religions (certainly the major religions) teach doctrines. Such doctrines enunciate teachings about the nature of God, man, the world etc. For example, the Christian doctrine of the Incarnation.

2. **Mythological Dimension:** Religions often contain beliefs which are cast in the form of a story. The stories refer to actual historical events interpreted religiously, or sometimes to non-historical or "sacred" events. Smart

7. Smart subsumes these under the term "symbology."
indicated that in using the word "myth" no judgment about truth or falsity is intended. For example, the story of the Buddha's career.

3. **Ethical Dimension:** Although ethics *per se* is an area of discourse which can be independent of religion, it is true that religions often prescribe an ethical path. Smart points out that ethics (in religion) are "often woven in part out of doctrinal and mythological threads." He cites as an example the meaning of Christian love which is illuminated by Jesus' death on the Cross. Hence one can speak of an ethical dimension of religion.

4. **Ritual Dimension:** Although in some forms of religion worship is rather unimportant (e.g. Theravada Buddhism) worship is generally the most common religious activity. For example, just as it is impossible to understand properly the concept of God or sacrament in Christian theology without entering imaginatively into the milieu of worship, so one cannot understand the idea of nirvana in Buddhism without entering at least imaginatively into the meditative life which takes one towards the goal."^{12} Smart discusses the ritual dimension of religion at great length in his book "The Concept of Worship"^{13} He argues that in order to understand the phenomenology of worship one must attempt to arrive at a sensitive understanding of the actors' standpoint. He notes that the language of worship begins with the vocative. Moreover, words have a performative power rather than a descriptive one. "Liturgy celebrates the primary event." That is, in attempting to understand the ritual dimension of religion the celebratory nature of the words must not be mistaken as descriptive. For example, he writes:

"... consider those utterances in worship which do not say anything such as the chant 'Holy, holy, holy, Lord God of Sabaoth. To say 'Holy' is not to describe anything ... "^{14}

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and:

"In telling God at Easter that he has raised his Son up from the dead, the worshipper is not reminding God or the congregation, but re-presenting the event." 15

However, Smart admits that it is embarrassing if the words descriptively are not true. "This is one reason why historical inquiry into primary religious events can so often be thought by the faithful to be dangerous and blasphemous, because it threatens the celebrations, and so in a way may promise the subtraction of some of God's power." 16 Smart stresses two further points about the ritual dimension.

(a) he emphasises that ritual should not be confused with ritualism, and (b) he considers that the contemplative practices of Theravada Buddhism and Christian mysticism should be included in the ritual dimension.

5. Experiential Dimension: - Smart admits the term "experience" to be "a slippery and loose one." He argues that it should be used to point to types of experiences which accompany rituals or which may otherwise arise in the religious context. Some are dramatic and highly formative of religious history of which the conversion of Paul, the call of Muhammad and the Enlightenment of the Buddha are probably the best known examples. 17 What Smart refers to here is clearly a concern of the psychology of religion, and therefore, in terms of his own categories, presumably the experiential dimension of religion demands "external explanation" for its fullest description.

6. Social Dimension: - This refers to the most basic expression of religion - namely its organised institutions which are organised for the purpose of continuing and expressing the religious tradition. It was noted above that John Wilson held that conceptually at least a social dimension of religion was not necessary. But without a social dimension presumably there would not be a tradition to be continued. Even in terms of Wilson's simplification, presumably without a social dimension, the worshipper would not know that there was a God to worship.

15. Smart, 1972, page 27.
17. Smart, 1973, op. cit. page 42.
Finally, Smart's distinction between "historical" and "para-historical" should be noted. Although he considers the dimensions to be a unity in plurality he divides them into two groups. The doctrinal, mythological and ethical he calls para-historical. By this he means that they are concerned with studies and arguments about the truth, value, etc. of religion. The other three dimensions, the ritual, experiential and social, he describes as historical - and by this he means that they refer to religious phenomena and beliefs which can be considered from a "purely historical and descriptive point of view."

Smart's categorization of six dimensions of religion provides a sound basis for adumbrating a content for a religious education curriculum. Moreover, it should be indicated here that the useful distinction between historical and para-historical elements is relevant to this enquiry. For in assessing adolescents' religious behaviour it will be appropriate to enquire into the extent to which the ritual, experiential and social dimensions (historical) are reflected in their actions. In assessing their religious attitudes, it will be appropriate to enquire into the extent of their interest in the para-historical questions of the doctrinal, mythological and ethical dimensions.

3. Religion as Ultimate Concern.

Yinger's approach accepts the possibility of divergence within the religious spectrum. And despite John Wilson's strictures discussed above, an identification of "ultimate concern" with God-talk is one of the features of contemporary Christian theology. Thus John Macquarrie writes,

"So too, religious discourse is always of God in his relation to us. When we talk of God, we talk at the same time of ourselves. The word "God" does not just signify Being but also implies an evaluation of Being, a commitment to Being as Holy Being, Being that is gracious and judging . ."

"The name of 'God' is not a disinterested label for Being or Reality or any other remote abstraction, but connotes . . ."


19. Ibid. page 12.

20. Note: I use this word deliberately referring to the literature in the research into creativity - "divergers and convergers" etc.

our existential concern with Being. In Tillich's language, God is both Being itself and ultimate concern."

"When we talk of God we talk of ourselves" - this paradoxical statement parallels the point made by Smart (noted above) namely, that the language of worship begins in the vocative. The search for religious meaning is also a search for personal identity. "For theology does not deal with impersonal truths" wrote a Roman Catholic theologian, "the truth it studies tells of our destiny, which means our personal relation with God." Daniel Jenkins, makes the same point in another way, writing about theology "in the Oxford tradition":

"Our own subject as we practise it is likewise fragmented by modern pressures; and outside the certainty that the ultimate reality is God (unshaken, I am sure by the perennial, inevitable and proper doubts about the adequacy of any particular set of images about him) we, too, are perplexed by many relativities."

Jean Tooke, although writing from an unequivocally expressed Christian standpoint, echoes the same theme:

"Jesus brings closer the full mystery of God and man and their relationship . . . "

Tooke states that despite the fact that the word "God" has "suffered more than most by being bandied about in intellectual argument", it nonetheless "has symbolised quite clearly and simply the absolute if hidden source of all things - ultimate reality and being."

"Even in inconclusive arguments and frustrated debates about God's existence, there remains something sacred in the search itself, in man's eagerness and efforts to reach the truth about the origin, nature and purpose of his and of all life."

"The word (God) may not act as more than a question mark defining and beckoning us to the mystery, but what have we abandoned if we abandon God?"

24. Ibid. page 160.
Tooke's comments are important for they are written in the introduction to a Teacher’s Handbook on Religious Studies. That is, her statements are intended as a philosophical justification for the integration methods which she proposes. One further comment, not at all confessionalist or didactic further illustrates the point under discussion:

"Ever since man has existed, he has been concerned to relate himself to ultimates of some kind. The ways in which he has searched, and has claimed to discover for himself or receive from a power beyond himself - all this is the stuff and the life of religion."

The Schools Council Working Paper No. 36, however, voices a necessary caution. The quest for meaning, per se, is not enough for it to merit the term "religious".

"To describe as religious any 'quest for meaning' in life, poetic insight, artistic vision, etc., which involves no necessary reference to any transcendent spiritual order or being for its interpretive principle is surely doing violence to language. Many subjects of human concern can be interpreted religiously, but not all attempts at interpreting life can meaningfully or accurately be designated religious."

But B. S. Holt places the "search for meaning" securely within the area of religious discourse. His view emphasises that it is asking the questions which is important, rather than learning theological answers.

"The word religion ... does not mean the learning of a body of theological and historical statements, important as this is, but rather the inspiration and the shaping of a personal search for truth and reality without which no real education can develop."

It is not intended to argue the theological case here. These quotations from theologians and educationists are given to indicate that the search for what is of ultimate concern is the

26. Note: This is Tooke's own expression.
27. Religious Education in Secondary Schools, Evans-Methuen, 1971. (c.f. Part One, Chapter IV)
subject of much contemporary, particularly existentialist, theological writing and is also providing a focus for religious education in schools. In mapping the key concepts of religious experience the concept of ultimate concern must be included.29

4. Religion as the Dimension of Mystery.

"In history the beating heart of religion has lain deeper than the intellect, deeper even than the conscience. The heart of religion has been that primal sense of awe before a tremendous and fascinating mystery, that sense of absolute dependence on the mercy of a power infinitely greater than man, which may still be experienced among African or Indians, and which has been expounded by Western theologians such as Friedrich Schleiermacher and Rudolf Otto."30

The classical exposition of this key concept of religious experience has been given by Rudolf Otto. His analysis of the structure of religious consciousness is based on an elucidation of "the key-word of all religion"31 the word "holy". Otto's study is one of the earliest and still the most valuable and profound attempts to delineate the phenomenology of religious experience.32 He describes the experience of the "mysterium tremendum" in the following way:

"The feeling of it may at times come sweeping like a gentle tide, pervading the mind with a tranquil mood of deepest worship. It may pass over into a more set and lasting attitude of the soul, continuing as it were, thrillingly vibrant and resonant, until at last it dies away and the soul resumes its 'profane' non-religious mood of everyday experience. It may burst in sudden eruption up from the depths of the soul with spasms and convulsions, or lead to the strangest excitements, to intoxicated frenzy, to transport and to ecstasy. It has its wild and daemonic forms and can sink to an almost grisly horror and shuddering."

29. Note: I am tempted here to pursue further the idea that "what is fully human" is of ultimate concern. Macquarrie's quotation is important. Could one build up a case on the lines that a search for "truly human" values is in fact a religious search? Could "the search for human dignity and value" be a key concept of religion?


It has its crude barbaric antecedents and early manifestations, and again it may be developed into something beautiful and pure and glorious. It may become the hushed, trembling, and speechless humility of the creature in the presence of - whom or what? In the presence of that which is a Mystery inexpressible and above all creatures."  

John Macquarrie in his discussion of Otto's study; considers the most valuable part, to be Otto's careful analysis of the feeling states which constitute the numinous experience. On the one side there is the feeling of the nothingness of finite being - what Otto calls "creative feeling"; and on the other side there is the feeling of the presence of an overwhelming Being - the numinous Being which strikes dumb with amazement.

Otto expounds the meaning of mysterium tremendum by analysing the elements of awfulness (religious dread or awe), the element of overpoweringness (the might, majesty and power of the subject of religious awe); and the element of energy or urgency (the vitality, passion, activity, impetus etc. of the mysterium tremendum). "Mysterium" describes what is called "wholly other" - the character of the numinous Being, which, as supranatural, is utterly beyond the grasp of conceptual thought. The element of "tremendum" signifies the experience of dread in the face of the overpowering majesty and energy of the Numinous. Otto's exposition includes a further description of "the element of fascination" pointing to the irresistible attraction of the numinous Being which "appears as a strange and mighty propulsion toward an ideal good", and which evokes rapture and love. The mystery becomes "not merely something to be wondered at but something that entrances ... ."  

In the view of Caldecott and Mackintosh the great importance of Otto's book lies in the contention that man's response to religion, far from being an auto-suggestive process in the mind, is made to "certain definite stimuli." That is, Otto proceeds on the basic assumption "that every religion claims to be not only

a state of mind in the worshipper, but the apprehension of a
Reality which is independent of man's reaction to it and could
on no other terms possess for him a real significance." 38

Although Otto's account of the holy is open to criticism, 39
Macquarrie believes that "we must acknowledge that in his analysis
of the numinous he has led us into the innermost sanctuary of
religion and described it with extraordinary power."

The dimension of mystery as a vital element in children's
religious development is a theme echoed by many writers. That
children frequently experience the full sense of the mysterium
tremendum as expounded by Otto is unlikely although not impossible.
What is generally agreed, however, is that children of all ages
are capable of experiencing a sense of wonder and mystery in the
course of their exploration of the world around them. Several
writers claim that this basic sense of awe, experienced in child-
hood, is indeed the beginning of a religious awareness. For
example, T. Newell-Price, writing about the insights gained from
Goldman's research, with regard to the religious development of
young children wrote:

"What in the long run has emerged of larger future consequence
is the undoubted fact that children have a basic religious
awareness which in the early years is very much to the fore
in their explanation of life and their wonder about the
purpose of existence." 40

William Kay, discussing the question "Are children religious?"
made a case for two levels of religious awareness. 41 The first
level is concerned with traditional religious practices like
church-going. The second level, is the "natural" level of
children's profound religious consciousness.

"At the heart of human nature lies the mystery of self-
consciousness. And we are most truly human when we accept
that there is a mystery at the heart of things."

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38. Caldecott and Mackintosh, op. cit., pages 449 - 450.
40. Newell-Price T. R. - "Integrated Studies and the initial
training of teachers" in (Ed) I. Birnie - Religious
41. Kay William - "Are children religious?" Learning for Living
11. (2) November 1971.
"Children are . . . naturally religious, because this sense of wonder and awe is the basic, common denominator of their lives."

William Kay's view is endorsed by M. Kitson, writing from the vantage point of considerable experience in infant education;

"Any teacher who is prepared to look at life in terms of personal experience as the children do is well on the road to discovering the true nature of religious education." 42

Several illustrations of the sense of the mysterious are documented in Violet Madge's Children in Search of Meaning. 43 Her discussion of a "sense of the mysterious" 44 corresponds to Kay's description of the "second level" of children's religious consciousness. However, she asserts that this "natural" sense of the mysterious sometimes causes children "to become aware of eternal realities beyond phenomena. 45 and to become aware of what Otto called the Numinous. Madge is right in making a distinction between (a) children's natural sense of wonder, and (b) the deeper sense of the numinous which it sometimes evokes. Strictly speaking, the former belongs to pre-religious consciousness. If Madge is right, Kay's view that all children are naturally religious needs to be questioned.

An important but different approach to the Dimension of Mystery is made in the philosophy of Martin Heidegger. 46 Heidegger saw man as thrown into an "inauthentic" existence dominated by his inexorable progression towards death. Fear of death prevented man from discovering the freedom of true "authentic" existence. Acceptance of death as man's "most proper possibility" provided the clue to the discovery of freedom. The way to such authentic freedom is by submission to being itself. Macquarrie expounds this difficult idea in the following way:

"Because of his essential relation to the truth of being, man is the guardian of being, he responds to the call of

43. SCM, 1965, op. cit.
44. Ibid. page 105. f.
45. Ibid. page 109.
being, while being graciously opens itself to him."  

An important book was published in 1969 by J. V. D. Smith. His discussion of "the dimension of mystery" in human experience is closely dependent upon the philosophy of Heidegger, and Smith draws out the parallels between Heidegger's account of authentic living and St. Paul's account of Christian living. Smith, expounding Heidegger's thought, argues that awareness of death gives depth to human experience and awakens man to the dimension of mystery. This dimension, Smith argues, is the religious dimension of human life.

"Acceptance of the conditions of human existence - including death - contains the possibility of self-fulfilment through submissive response to the mystery of Being."  

The importance of Smith's view has been recognised. The nub of his thesis is that "there is a religious dimension - a dimension of mystery in human experience which we cannot ignore when we think seriously about personal development."  

Otto's description of the Idea of the Holy, the Mysterium Tremendum, and the existentialist approach of Heidegger echoed by J. W. D. Smith, together provide a key conceptual area of religious experience. It is clearly related to the ritual and experiential dimensions of religion as adumbrated by Smart. It has obvious links with the philosophical analytical model outlined by John Wilson. However, neither Smart's nor Wilson's descriptions fully correspond with it; the dimension of mystery stands as a separate and important area in a description of key concepts of religious experience.

5. A Sociological Interpretation of Religion.

Smart's characterization of the social dimension of religion was noted above. His point about external explanations was also noted, and it is within this category that sociological interpre-


49. Ibid., page 50.


51. Smith, op. cit., page 53.
pretations of religion must be placed. To avoid ambiguity it will be useful at this point to note the distinction between the words "social" and "sociological." In speaking of the social dimension of religion, the particular groups, societies, communities, institutions into which religious collectivities are organised is indicated. When speaking of the sociological interpretation of religion, the range of analytic models used to interpret the significance of religion, is implied. Such models take into account not only internal interaction and development of religious organisations (that is, the social dimension) but also the relationship between that development and such external social issues as the state, social economy, the family etc.  

It is appropriate, therefore, to denote sociological interpretation as a mode of external explanation (Smart).

The sociology of religion is a broad area of concern within the much wider field of sociology. A discursive discussion of this broad area is not relevant to the purpose of this enquiry. 

What is required, however, is an indication of the ways in which sociological models may assist in identifying key factors of religious phenomena in adolescent experience. Whereas the classical approaches represented by Troeltsch, Weber, Durkheim and Pareto emphasised the influence of religion on society (that is, how social behaviour was conditioned by religion), present studies reflect the profound changes that have taken place in the position and significance of religion and of the church in modern society. Two areas are emphasised in recent writing, and the second is of particular relevance when considering contemporary adolescent religious experience. (i) Several studies focus upon the phenomena of church organisations and the leadership roles, social status, patterns of interaction etc. observed within them. Church, sect and denomination are characterized as sociological types and the processes of change - - -


and movement from one type to another are discussed.\textsuperscript{55} (ii) Contemporary sociologists also pay considerable attention to the problem of secularization, a hypothesis originally formulated by Weber, and which according to Purstenberg (1961) has given to the sociology of religion "its most sustained impetus." At the heart of the problem lies "the progressive turning away of the people from the church and their indifference to religious questions."

An excellent theoretical discussion of the secularization hypothesis is the basis of Peter Berger's \textit{The Social Reality of Religion}.\textsuperscript{56} He defines secularization as "the process by which sectors of society and culture are removed from the domination of religious institutions and symbols." He depicts Protestantism as the historically decisive prelude to this process.\textsuperscript{57} He argues that secularization has resulted in a widespread collapse of the plausibility of traditional definitions of reality. Traditional religious definitions of reality are put in question in the minds of ordinary people. Christianity, at least, has lost its credibility. Berger's conclusion is of interest, and is relevant to this enquiry. The effect of the secularization process, he argues, is the subjectivization of religion in two ways. Religion increasingly becomes a matter of free subjective choice, and religious realities are increasingly translated to a frame of reference that locates them \textit{within} consciousness. The "realissimum" to which religion refers is transposed from the cosmos to individual consciousness. Cosmology becomes psychology.

The importance of Berger's thesis for this research lies in its implication for a definition of religious behaviour. A serious concern with problems of nomization (finding order and meaning in the world) must be understood as a secularized interpretation of religious concern. If such concern with nomization can be demonstrated it must, on Berger's terms be regarded as religious.

\textsuperscript{55} c.f. the classical studies of Troeltsch (The Three Types of Christian community); Niebuhr H. R. (The Social Sources of Denominationalism); Weber Max (Church and Sect) and contemporary studies by Robertson, Yinger, Wilson B., Martin D.A. etc.


\textsuperscript{57} Ibid. page 118.
In identifying adolescent religious attitudes and behaviour Berger's model provides a valuable conceptual framework. It serves also as a clear example in this discussion of the usefulness of including sociological explanation as one element amongst the key concepts of religious experience.

6. A Note on the Psychological Interpretation of Religion.

The psychology of religion, per se, cannot be said to be a key concept of religious experience. However, in mapping the key concepts of religion it is clear that the concerns of psychology of religion overlap considerably. An example of this is what Smart calls experiential religion.

As with sociology of religion so in the field of the psychology of religion - it is a vast area, and clearly it is inappropriate here to engage in any attempt to detail the many aspects of human experience with which it deals. From the point of view of individual psychology, however, there are several distinguishable psychological functions which religion serves, and these may briefly be stated:

(i) It offers a set of beliefs which provide meaning and security in the face of the facts of suffering, loss and death.

(ii) It endorses a moral code which provides a set of sanctioned guide-lines for conduct, and relieves the individual of much of the labour of working out his own moral code.

(iii) It provides a community within which he can feel sustained by the support of others.

(iv) It encourages a number of religious activities like prayer, worship, meditation, receiving the sacraments - which may be therapeutic in their effect, and which may also do something to transform personality.

Methodologically, empirical studies in this field tend to be correlational. Specific aspects of religious behaviour (whether traditional or non-conventional) are measured and correlated with other observed and measured personality variables. In the present enquiry into adolescent religious development the methods

of the psychology of religion will be valuable for assessing possible correlations between religious attitude, religious behaviour, religious thinking and intelligence. That is to say, when inquiring into aspects of personal religion, it will be necessary to go beyond the precise boundaries of religion, into the adjacent area of individual psychology.\(^{59}\) This is a further example of what Smart called external explanation.

7. Summary and Conclusion:

(1) Four key concepts have been indicated. Religion has been described (i) as a sui-generis activity of worship arising from the emotion of awe, (ii) as historical and para-historical (iii) as a search for ultimate reality, (iv) as a response to Mystery. Two notes on the relevance of sociological and psychological explanation to this enquiry have been appended.

(2) A few comments are now made in conclusion.

(i) This four-fold delineation is an arbitrary one.\(^{60}\) Its value lies in the clarification which it affords to what Ninian Smart has called the "delightful, baffling and profound pursuit" of the exploration of religion.

(ii) Two basic ways of looking at religious phenomena have consistently emerged during this discussion. The first sees religion as a sui-generis activity with precisely marked boundaries and with the clear implication of a transcendent referent. The references made to the work of Wilson, Smart and Otto fall within this category. The second sees religion as an open-ended process focussing on the activity of an existential search for identity and meaning, with the idea of a transcendent referent being held as a possibility but by no means as a necessity. The references made to

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59. Note: This is so obvious that I am not sure that it needs to be stated! However, the intention of this chapter is to map out the conceptual area of religion to facilitate the choice of instruments. And as maps include minute details as well as sweeping contours, I think this note on methodology and the link between "religion" and "psychology of religion" should find a place in the discussion.

Yinger, Tillich, Macquarrie, Heidegger and Berger fall within this category.

(iii) The two perspectives have blurred edges, however, and there are places where the distinction is difficult to maintain. For example, Smart's discussion of para-historical questions is relevant to the second category, although his multi-dimensional analysis of religion properly places him within the first. The approach of J. W. D. Smith, using Heidegger's philosophy, was considered in the section which dealt with Otto; it could have been placed with equal force in the context of the philosophy of Tillich, that is, in the section on religion as ultimate concern.

(iv) Finally, it is noted that the intention of this discussion has been to sketch an outline, and not to argue a theological case. This account of the key concepts of religious experience will inform the choice of tests to be used in the empirical aspects of the research.

61. Note: When theological assertions have been made, their justification has been indicated as far as possible by brief quotations, and by the references given in the footnotes.
CHAPTER IV
THE CHANGED CLIMATE FOR RELIGIOUS EDUCATION IN SCHOOLS

In the Education Act of 1944 religious instruction was made a compulsory element in the curriculum of Schools in England and Wales. In the post-war period the climate for religious education has changed considerably. This chapter reviews this change with particular reference to educational reports, research findings, and the influence of theology and philosophy. The educational implications of research findings are described and discussed.

1. The Climate for Change.

(1) The Education Act of 1944.
The Education Act of 1944 made religious worship and teaching compulsory, throughout England and Wales, in all schools maintained by a local education authority. The Cowper-Temple clause in the Education Act of 1870 had forbade the use of any "religious catechism or religious formulary distinctive of any particular denomination" in schools which received financial support from local rates. The form of the Cowper-Temple clause was retained in the 1944 Act but with an altered impact. The clause now stated that religious worship "shall not be distinctive of any particular religious denomination" and that religious teaching should be given "in accordance with an agreed syllabus . . . (which) shall not include any catechism or formulary which is distinctive of any particular denomination."¹ The fifth schedule of the Act made it obligatory for all local education authorities to prepare an agreed syllabus or adopt an existing one. A local conference consisting of four committees representing the local authority, the Church of England, other religious denominations and the teachers was to be responsible for preparing the syllabus. "The Act still rejected denominational worship and teaching but the provisions for syllabus preparation ensured that the substance and intention of religious education would be Christian. The state assumed direct responsibility for moral and religious education on a Christian basis."²

2. Ibid. page 19.
(2) The Agreed Syllabus.

(i) The use of an agreed syllabus in each area was fundamental to the success of the religious provisions of the 1944 Education Act, and by looking at the syllabuses one may discover "the principles on which religious instruction under the Act has been conducted and the assumptions on which it is based." After 1944 many authorities began to construct their own syllabuses whilst others adopted a syllabus already in use by another authority. The agreed syllabuses of Cambridgeshire, Sunderland and Surrey were widely used. The syllabuses were not intended as schemes of lessons but as outlines of material suitable for use in religious instruction periods. They were "suggestive rather than compulsory." However, the material recommended for study was taken almost entirely from the Bible. Cox (1966) lists five assumptions which appear to have been made by the compilers but which would be widely questioned today. These are: (a) That when the Act refers to religious instruction it means instruction in the Christian religion. (b) That every child is Christian and comes from a Christian home. (c) That the view of the nature of theological truth which was acceptable before the rise of scientific thought is still valid. (d) That the Bible is the unquestioned source book of Christian belief and that to learn its contents will of itself have a beneficial effect on character and produce religious faith. (e) That children of all ages think about religion in the same way. Doubts concerning the validity of these assumptions, and changing attitudes to religious education have resulted in the publication of revised syllabuses.

4. Ibid.
5. For a clear description and comparison of the content of various Agreed Syllabuses see - Youngman Bernard R. (1953) - Teaching Religious Knowledge Chapter 5, University of London Press.
6. Cox. op. cit.
(ii) The West Riding Syllabus published in 1966, was favourably received, although the material suggested for study was still heavily weighted on the biblical side. Alan Loosemore, the main architect of this syllabus, regarded it not as a document to be "got through" but as a handbook containing a wealth of material, not only for teaching purposes but also for reference. The underlying emphases of educational principles, practical guidance and advice, sources of information, and close links with the advisory service were seen as showing the way towards future developments. The highly praised ILEA syllabus published in 1968, recommended an approach using life themes with Biblical and other material being used for illustrations. In 1972, Hampshire published a "Handbook of Suggestions." It was compiled in a form "different from that of any previous agreed syllabus of Religious Education produced by the Authority." It contained a series of articles and schemes for classroom teaching together with lists of resources. Its aim was to provide a practical resource for teachers in the classroom. Similar collections of papers were issued as supplementary material to the agreed syllabus by Cambridge in 1970 and by Essex in 1969. Cornwall issued a new syllabus in 1971 which had been mainly written by teachers for use of teachers in all types of schools. In each of these developments a less rigid approach to the use of the Agreed Syllabus was to be noted.

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however, writing in 1968, was certain that the days of agreed syllabuses were numbered and that religious education as a special subject on the timetable would soon disappear. \(^{11}\) He could see in its place "a new dimension to the curriculum as a whole against which we shall set the experiences, the things and relations and feelings, which our pupils can recognise as real for them." Smith (1971) critical of the new syllabuses draws attention to "the dangers of misrepresentation and distortion which can easily arise" from use of the recommended subject-matter and biblical material. Unintentional trivialisation of biblical matter, she argues, hinders later understanding, and therefore the complete omission of biblical material from primary syllabuses is desirable. \(^{12}\)

(iii) Controversy regarding both the content of Agreed Syllabuses and their usefulness for religious education in a pluralist society has continued in the 1970's. The publication of the Birmingham Syllabus and Handbook highlights this controversy. Published in 1975 amidst considerable publicity in the national press, probably its most controversial feature was the inclusion in the Handbook of detailed courses for the fifth form in Communism and Humanism. \(^{13}\) The syllabus reflects the view that:

"religious education is seen as an educationally valid component of the school curriculum . . . "

It aims to develop:

"a critical understanding of the religious and moral dimensions of human experience and away from attempting to foster the claims of particular religious standpoints."

\(^{11}\) Loukes H. - "Death of a Subject" Times Educational Supplement, 12 April 1968.


\(^{13}\) City of Birmingham Education Committee (1975) - Agreed Syllabus of Religious Instruction and Living Together: A Teacher's Handbook of suggestions for Religious Education. Note: For a full account of the controversy surrounding these publications, c.f. Hull, 1975, op. cit.
"The syllabus should thus be used to enlarge and deepen the pupils' understanding of religion by studying world religions, and by exploring all those elements in human experience which raise questions about life's ultimate meaning and value. This involves informing pupils in a descriptive critical and experiential manner about what religion is, and increasing their sensitivity to the areas of experience from which a religious view of life may arise. It should stimulate within the pupils, and assist them in the search for, a personal sense of meaning in life, whilst enabling them to understand the beliefs and commitments of others."\(^{14}\)

Edwin Cox welcomed the syllabus as containing much "that is new and good and courageous and forward-looking."\(^{15}\) W. Owen Cole described it as "the first syllabus of religious education (Cole's italics) to be produced by a British LEA, as distinct from Christian education syllabus or others which are syllabuses of Bible study and moral education."\(^{16}\)

John V. Taylor described the syllabus, however, as "essentially an initiation into non-commitment" and wondered whether the strong emphasis on objectivity which characterizes it will result in a religious education which "should enable every child to be on the side of the angels without actually believing in them." Taylor observed,

"Though there are frequent references to religious experiences, this appears to be admitted into the classroom only as someone else's experience, to be recognised and analytically observed."

Moreover Taylor continued,

"... an approach of such objectivity and detachment as this not only reflects an old-

fashioned theory of knowledge, but psychologically is a very counter-productive way of achieving a society of toleration and honest discourse."\textsuperscript{17}

H. V. Stopes-Roe, Chairman of the British Humanist Association, and a member of the Co-ordinating Working Party which prepared the syllabus, regretted that an earlier version of the syllabus prepared in 1974 had not been published. His main criticism of the 1975 version was "the dominance of religion." Firstly, "the material as a whole is slanted in a religious direction," and secondly, "particularly for the younger ages, fundamental emotional forces are taken over by religion."\textsuperscript{18}

John Hick, who was Chairman of the Co-ordinating Working Party, regarded Stopes-Roe's views as exaggerated "for the position of Humanism is the same in each Syllabus, with its Introduction and Handbook." Further, "the study unit on Humanism remains virtually unchanged between the two versions."\textsuperscript{19}

The Birmingham Syllabus of 1975 was a deliberate and creative response to the changed cultural conditions of the City of Birmingham,\textsuperscript{20} and reflects the considerable change that has taken place in educational thinking towards an understanding of the nature and purpose of religious education. The full importance and educational significance of this document has yet to be assessed but initial reactions to its publication have in general been favourable.

The educational philosophy reflected in the Birmingham Agreed Syllabus is seen in a report of a Working Party convened to consider the future of the Agreed Syllabus.

\textsuperscript{17} Ibid. Taylor J. V. (1976) "Initiation into Agnosticism."

\textsuperscript{18} Ibid. Stopes-Roe H. V. (1976) "Education and the Law in Birmingham."

\textsuperscript{19} Ibid. Hick John (1976) - "Education and the Law in Birmingham - a Comment."

\textsuperscript{20} c.f. Syllabus, page 4. "... profound social changes require that pupils shall be prepared for the realities of life in the twentieth century global village."
and submitted in 1976 to the Religious Education Council of England and Wales. The most significant of its ten recommendations is:

"That in the light of the changes in the climate of thought about religious education in this country, Agreed Syllabuses to protect sectional interests should be abolished."

Other recommendations of the Working Party's report proposed that "some kind of authoritative guidance should still be produced to help teachers" and that "a National Advisory Conference of appropriate expertise" should be convened by the Secretary for State to draw up national guidelines for the subject. There is no indication to suggest, however, that the political climate is yet ripe to put these far-reaching proposals into effect. Moreover, it is unlikely that local educational authorities would react enthusiastically to the suggestion of the Religious Education Council's group that their powers in promoting religious education should be taken from them and given to a national body.

(3) Educational Reports.

Since the early 1960's three important developments have occurred which have brought into question the assumptions underlying the agreed syllabuses and which have radically changed the climate for teaching religion in schools. Firstly, on the theological scene publications such as Soundings (1962), Honest to God, 1963, and The Secular Meaning of the Gospel (1963) together with the work of the American "Death of God" theologians25 initiated a debate which was popularly known as the new or radical theology. The debate has continued into the 1970's with

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24. c.f. Editorial Learning for Living, Autumn 1976

   Controversy, SCH Press.
the book edited by John Hick, *The Myth of God Incarnate* perhaps attracting the most wide attention.\(^{26}\) Secondly, empirical research into children's religious thinking and into children's religious attitudes and behaviour has led to a questioning of the validity and effectiveness of traditional approaches to religious instruction. Prominent amongst these researchers are Goldman, Loukes, Hyde, Cox, Alves and Francis whose work is reviewed in greater detail below.\(^{27}\) The third important development lies in the field of educational philosophy. The influence of analytical philosophy has affected the University Schools of Education, and educational philosophers demand a more rigorous justification of educational theory than until quite recently was the case.\(^{28}\) This change is reflected in the way in which the disciplines of philosophy, sociology and psychology are regarded as underpinning educational theory, each having its own distinctive methods of enquiry. These theological, psychological and philosophical influences have changed the climate for teaching religion in schools and some of their effects have already been discussed above with reference to the Agreed Syllabus. These influences are also reflected in a series of educational reports which have appeared over the past decade and the more important of these are now briefly considered.

(i) **Institute of Christian Education Report, 1954**

This report entitled "Religious Education in Schools" drew attention to a shortage of trained religious education specialists in schools. It was reported that out of 674 grammar schools in the survey, 312 had no qualified religious education teacher.\(^{29}\) This serious shortage of specialist teachers was reported also in the **Karratt Report** published by the British Council of Churches in 1971.\(^{30}\)

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(ii) **University of Sheffield Institute of Education 1961.**

The findings of a research project conducted in 1961 by the University of Sheffield Institute of Education into religious education in secondary schools revealed that:

"... the standard of religious knowledge in the schools today ... is clearly very poor."\(^{31}\)

(iii) **The Crowther Report, 1959.**

Crowther reported on the education of pupils aged 15 to 18. The report stressed the need for education to help teenagers in their search for "a faith to live by."\(^{32}\) It was a substantial survey of the needs and opportunities in the 15 - 18 year old age range. Its twin aims, "The right of every boy and girl to be educated" and "the need of the community to provide an adequate supply of brains and skill to sustain its economic activity" led it to concentrate on two major issues - wasted resources and social justice. Its recommendations were designed to encourage young people, particularly those from culturally deprived areas, to continue their education after leaving school, and its proposals included "raising the school leaving age," and compulsory part-time education to the age of 18.

(iv) **The report entitled "Half our Future" by the Newsom Committee published in 1963.**

Drew attention to the needs of pupils aged 13 to 16 of average and less than average ability.\(^{33}\) It drew attention to the failures in the secondary modern sector and the need for a change of attitude and policy to redress the injustices suffered by the less able pupils. Newsom pupils constitute approximately half the pupils in our secondary schools. The report documented evidence of inadequate provision of buildings, teachers, extracurricula activities etc., but also urged the government


\(^{32}\) The Crowther Report, D.E.S. 1959

\(^{33}\) The Newsom Report, D.E.S. 1963
to raise the school leaving age. Chapter 7 of the report is entitled "Spiritual and Moral Development."
The chapter clearly reflects the post 1944 thinking about religious instruction before the influence of Goldman and like thinkers had begun to take effect.

For example, on page 55 we read:

"But no Christian could for a moment rest content with an education which brought men face to face with a crucifixion but not with Christ. Religious Instruction in accordance with any local education authority's agreed syllabus is instruction in the Christian religion."

Newsom identifies the problem of religious instruction as due to varying views about Christianity amongst teachers, adults, children etc. It does not question the assumptions that (a) the Bible is the basic content of an agreed syllabus, and (b) that Religious Instruction is teaching the Christian religion. It does draw attention, however, to the fact that from a teaching point of view many syllabuses were unsatisfactory in dealing with the interests of less able children.

(v) The Plowden Report (1967) reported on the education of children up to the age of 12. Chapter 17 of the report examined the place of religious education in the primary school curriculum. The chapter assumes the continuance of religious education on the curriculum of the primary school, and makes suggestions about changes in content and method, but a critical view given in the Durham Report, suggested that Plowden did not subject religious education in primary schools to "the thorough examination" which it needs. The section in the Plowden Report on the Agreed Syllabus, however, shows awareness of contemporary research into the religious thinking of children and the work of Goldman is mentioned in a footnote. The report recognises "that children may appreciate poetically what they cannot grasp intellectually," and in-service training

to familiarize teachers with modern thinking on religious education is amongst the report's recommendations. Dearden is critical of the hidden value judgments of the Plowden Report. He draws attention to the distinction between "teaching about religion" and indoctrination, the latter being "incompatible with respect for personal autonomy." He finds distressing Plowden's remark that children "should not be confused by being taught to doubt before faith is established." W. R. Niblett (1967) finds himself in disagreement with the implications of the minority report on religious education in Plowden. "At the secondary stage children should be given an opportunity to acquire an adequate knowledge of all that Christian theology implies..." Niblett finds "such deliberately chosen words" as theology, acquire, adequate, implies, arguments etc., as showing a misunderstanding of the nature of religion. Knowledge is treated as something intellectual, but religion is also a way of knowing. Therefore, the limitations of the "analysing intellect" as far as religion is concerned must be recognised.

Loukes (1967) supports the minority report, however, and is critical of Plowden's suggestion that children "should be taught to know and love God." Loukes would prefer religion to be optional rather than compulsory. He argues that in religious education it is important to bear in mind that talking about God is the issue.

"Nobody, humanist or Christian, has any doubt about the need for children to meet and know love; and if one day an adult is to say, 'You remember that love you have learnt all your life? Well, that's how you met God', then the humanists would have no quarrel with him, for at that point the youngster is free to explore what we are talking about."
Wyatt Rawson, however, commends the underlying assumptions of the report - particularly paragraph 568. He believes that Plowden is right in starting with children's needs and particularly with their religious needs; "All education includes a religious element, for it is based on the relation between pupil and teacher and relationships are the subject matter of religion." 40

(vi) "The Fourth R," the Durham Report on Religious Education was published in 1970. It was the result of the work of an independent commission set up in 1967 by the Church of England Board of Education and the National Society. "The decision to establish the Commission arose from a widely felt need to examine the whole field of religious education at a time when hitherto accepted presuppositions were being questioned, the aims of religious education reconsidered, and methods of teaching transformed." 41 The report was offered as a major contribution to the Church's thinking on religious education. It produces a theology of open-ended, exploratory, child-related and culture-related R.E. Cox (1970) examines the assumptions underlying the report and finds them less than satisfactory. He considers that the present situation requires not only a theology of education but also an educational philosophy of theology. The report attempts this but succeeds incompletely "because it never fully analyses the nature of religious knowledge, the meaning of such statements as a "religious dimension to life" and whether "finding a faith to live by" is necessarily a religious activity." "Its contribution to the philosophical debate about R.E. is limited because it assumes as settled the points that are debated." 42 So often with regard to these debatable matters it appears to beg the questions. Cox finds the report

"a highly professional tidying up on the Christian side, and a firm and lucid statement of the religious case for teaching the subject in schools," but with its contribution to the philosophical discussion of the nature of the subject, he is disappointed. Ninian Smart (1970) considers that the days of Christian education are dead, but that "the days of Christians educating are never better." Echoing Cox's criticism he voices grave doubts as to whether the theological assumptions in the report are given sufficient definition, and "even greater doubts as to whether the definition would be acceptable across the teaching profession." With reference to the pursuit of the "notion" of integrated studies Smart considers it important that a clear definition of the nature of religion should be evolved.43. Despite these reservations Smart welcomes the report as excellent and forward looking.

(vii) A less extensive but equally important contribution to the debate was the report of the Methodist Conference Commission on Education published in 1970.44 The report attempts to state "a reasoned Christian view of the place of education in the community; the principles to be applied in educational method and structure; and the contribution to be made by the Church and its members."45 Probably the most important section is Part 2 which deals with authority; equality and excellence; and the School Community. The report strongly argues in favour of the retention of R.E. in the curriculum but only because it is "educationally justifiable." "We see a particular task . . . . for a department of "religious studies" in school or college whose aim would be to help children and young people to understand and appreciate religious phenomena, to discuss religious claims with sensitivity, to be aware of the nature of religious discourse through . . . .


45. Ibid. page 11.
an understanding of the meaning and use of religious concepts, and to recognise the criteria and standards by which truth and falsehood in religious belief are distinguished."46

(viii) The Millar Report (1972) "Moral and Religious Education in Scottish Schools" makes the suggestion that religious education should be linked with "a whole range of other matters in the field of personal and social understanding." Such matters include "health education, sex education, pastoral discussion and guidance, and community service activities outside the school."47 A major recommendation of the report was that the Consultative Committee for the Curriculum, perhaps the most influential advisory group at the centre of Scottish education, be invited to assume responsibility for the development of the subject. A critical reading of the report shows that the distinction between moral and religious education is not always clear. Further, "despite a generally informative chapter on the aims of religious education the report discloses a disturbing tendency for exaggerated importance to be given to the contribution of religious education to the ethos of the school."48 Nonetheless, the report is to be welcomed in Scotland "for it represents the first serious attempt in a hundred years to study the problems of this long neglected part of education."49

(ix) In September 1973, the Department of Education and Science issued a report of a survey on religious education in Lancashire secondary schools. The information in the report was obtained from a survey jointly carried out by the local education authority and H.M.I. At the time of the survey, Lancashire County was the authority with the largest school


47. Moral and Religious Education in Scottish Schools Report by the Millar Committee to the Secretary of State for Scotland, March 1972.


49. Ibid.
population in the country and the Anglican and Roman Catholic authorities agreed that their secondary schools should be included in the survey. The survey covered 245 maintained schools. The report was issued in confidence to the Local Authority but permission was given for its main findings to be published.50 Two key problems were revealed by the survey. (i) It highlighted disturbing staffing statistics, for only one third of teachers responsible for religious education (that is, in charge of the subject) possessed specialist qualifications in the subject.51 (ii) One school in five gave clear indication that there was little religious teaching at all in the curriculum and that the subject had been absorbed into a humanities programme in which it was supposed to be an ingredient. "The one clear lesson of the survey" it was reported, "is that the establishment of humanities departments and faculties over the past few years without any valid religious education component forms the biggest threat to effective religious education in secondary schools."52

(x) A discussion document "Religious Education in County Schools" was published by the Free Church Federal Council in 1976.53 It defines religious education as:

"... the communication of knowledge, the interpretation given to that knowledge and an understanding of what it means for any living religion studied to be taken seriously. Such a study will include the recognition that all religions depend for their continuance upon personal commitment and worship."54

51. Note: This is a more favourable situation than that reported by Farratt in 1971, but it is nonetheless, unsatisfactory.
54. Ibid.
The editorial in *Learning for Living* described the Free Church Federal Council statement as "mild and considered in its tone, yet it makes suggestions which are realistic, showing how the best of the old legal structure can be preserved and accommodated to the needs of the present situation." Another reviewer regarded the report with less enthusiasm and described it as marking:

"... another stage in the long retreat of religious education into irrelevance."

Further,

"The section on a definition of terms is so confused, that it must be doubted whether the working party was able to reach any consensus at all."

The report represents an attempt on the part of the Free Churches to take account of new educational developments in the field of religious education and to make an assessment of the continued contribution which the Free Churches can make.

Four documents issued by the Schools Council are of particular importance:

(xi) *Humanities for the young school leaver: an approach through religious education* was published in 1969. It distinguished three areas of enquiry for a general humanities programme, questions of fact, problems of value, and ultimate meaning. It argued that the religious education and specialist has a part to play in each of these three areas. The document reflects the climate of theological debate prevalent in the late 1960's.

"A full-scale account of the role of religious education therefore calls for a considered statement on these two conflicts, between

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Christians and humanists on the one hand, and within Christian theology on the other. At the present time such a statement would be premature; it must await further progress in the theological debate now going on. The fact that this debate is going on, must, however, be borne in mind in any consideration of the educational task. One comment may be offered about the theological debate; the utterances of the New Theology, although at their worst unhelpfully opaque, at their best invite a fruitful penetration through the language of ecclesiastical theology to a rediscovery of New Testament experience and insight."

Religious Education in Secondary Schools was a working paper produced by the Schools Council Project on Religious Education in Secondary Schools after the first eighteen months of its work, and provides a succinct description of the philosophy of the "new religious education." It continues to be, in the late 1970s, a valuable statement of modern approaches to the teaching of religious education in secondary schools. The Report reviewed recent writing and research in the religious education field and identified three different conceptions of religious education - the neo-confessional approach, the implicit religion approach and the explicit religion approach. The neo-confessional approach (with Goldman and Plowden cited as exponents of it) although basically an open approach, attempts to make dogmatic or confessional religious education acceptable and effective by using improved methods and techniques. Its main aim is to teach the Christian faith. It is unacceptable as a basis of religious education in maintained schools. The implicit religion approach sees religious education as an unrestricted personal quest for meaning in

life in terms of actual experience. H. Loukes is cited as the main exponent of this approach, but it too is rejected and on the grounds that it lacks a sufficiently precise definition of religion. "Many subjects of human concern can be interpreted religiously, but not all attempts at interpreting life can meaningfully or accurately be designated religious." The explicit religion approach takes as its field of study the explicit phenomena of religion. Smart, Cox and J. W. D. Smith are cited as advocates of this approach. It is described as being educationally sound. Smart is quoted with approval: the aim of religious teaching in schools is not to evangelize or to get pupils to accept a predetermined religious viewpoint, but to create:

"... certain capacities to understand and think about religion."

"... the essence of education, I would suggest, is teaching how."  

The report also contains chapters on the place of religious education in integrated studies, non-Christian religions and the religious needs of minority groups, and religious and moral education.

(xiii) Religious Education in Primary Schools is a report of religious education in a number of primary schools in England and Wales. It is based on the reports from the headteachers of 213 schools, and from observations recorded from prolonged visits to 56 of them. The Working Paper surveys recent trends in religious education and provides some lively descriptions of school assemblies and religious education lessons observed during visits to the schools. It reported, however, that:

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in general there is little evidence among teachers in primary schools of positive theological thinking and little awareness of the trends in recent biblical scholarship."

It recommends theme teaching in the sense of exploring human experience from the starting point of the child's own interest and his involvement in his immediate world, and on the assumption that "religious experience is normal everyday experience understood in depth ...." The use of the Bible as an aspect of theme teaching, worship and assemblies is also discussed. In-service training courses for teachers to improve their ability to select and interpret suitable biblical and non-biblical material, and to develop their understanding of the educational and theological presuppositions of the thematic approach to religious education are two important recommendations of the Working Paper.

(xiv) A Groundplan for the Study of Religion was published in 1977. It was the report of the Religious Education Committee Working Party on Aims and Objectives. The aim of the groundplan was:

"... to describe what we believe to be an educationally acceptable treatment of religion."

The groundplan starts with a different perspective from that of the older agreed syllabuses.

"They attempted to define an area of knowledge which a teacher might attempt to impart with the concurrence of most of the major churches. We have started from a different perspective, and have tried to define what sort of knowledge, what sort of experiences, and what criteria of evaluation of religious material need to be

64. Ibid. page 62.
included in the religious education curriculum in order to enable pupils to react to whatever religious phenomena they may encounter in the reasonable manner that is expected of an educated person. We have tried to define not what may be taught without arousing controversy, but what ought to be taught to enable pupils to think reasonably in an area in which rationality has been made more desirable than ever by the present confused situation."

The first two chapters of the groundplan give a brief overview of social, theological, psychological and educational factors which have contributed over the past decade to changed attitudes, skills and concepts which provide a sound basis for curriculum development in religious education. A distinction between understanding and evaluation emerge as the central features of the groundplan. Understanding is directed towards concepts, feelings, and actions; evaluation is directed towards the truth-claims, self-understanding, values and personal relevance of a tradition. Chapter 4 of the report (A Commentary on the Groundplan) explains the precise nature of the groundplan:

"The groundplan is . . . . an outline of those kinds of understanding and evaluation which responsible planning for religious studies must take into account. It is an outline of the kinds of things that serious study of religions cannot ignore if justice is to be done to the very nature of religions." 67

In short, the groundplan is a tool for curriculum planning. Webster (1978) welcomed the groundplan as "a key bulletin in the struggle to fashion a religious education for our own time and our own society." "Many harassed and confused teachers will welcome the first step towards a more theoretical foundation for religious education. . ." 68

Michael Grimmitt described it as "this important report." R. E. Cunningham, however, expressed reservations; "I personally have doubts about the open R.E. approach of the kind favoured by the bulletin," and he considered that "the bulletin seems to have adopted a rather limited view of realities." Chapters V and VI of the groundplan contain explicit examples of how the groundplan can be used in examining critically, text books, examination papers and classroom discussions, and in planning syllabuses. Teachers were involved in the preparation of these sections and it is clear that the groundplan has much practical value for developing educationally sound curriculum materials. The schemes of work given in Chapter VI show how the groundplan can be used in practice; it is a valuable document.

2. Research into Children's Religious Thinking and Implications for Religious Education.

During recent years several research reports have been published on the subject of children's religious thinking. A descriptive account is given of these research findings and an assessment is made of their contribution to the continuing debate regarding the content and method of religious education.

(1) Goldman

Prominent amongst these researchers is Ronald Goldman. The publication in 1964 of his Religious Thinking from Childhood to Adolescence caused widespread interest. The view taken in Goldman's research is that religious thinking is no different in mode and method from thinking in other fields. Religious thinking is the activity of thinking directed towards religion.


70. Cunningham R. E.: Review Article, Learning for Living, Spring, 1978. c.f. also, Stopes-Roe's review, Learning for Living, Spring, 1978 - "The Groundplan restricts its enquiry .. by taking religious studies rather narrowly, as concerned with the phenomena of the religions, rather than the phenomenon of religion."
"The only difference about religious thinking is that it is not derived directly from sensatory data, but it is a process of generalising from various experiences and already held concepts to an interpretation of the activity and nature of the divine. In this sense religious thinking is secondary, dependent as it is upon fruits of general experience rather than specific religious phenomena."

In clarifying the meaning of religious thinking Goldman speaks of "the materials for thinking" and distinguishes between sensation, percepts and concepts of the physical and psychological world.

"The raw material of thinking is sensation which is selected and then perceptualised. A percept may be defined as a personal and immediate interpretation of a sensation or sensations."

He quotes Vinacke's five-fold summary of the characteristics of concepts and accepts the suggestion of Reichard, Schneider and Rapaport that three levels of concepts emerge in children, namely, the concretistic, functional and conceptual. He emphasises that religious percepts and concepts are not based on direct sensatory data, but are formed from other perceptions and conceptions of experience.

Goldman defines the "mechanism of thought" including concept formation as the discerning of relationships between separate objects, events, experiences or facts. He accepts Piaget's three levels of thinking - intuitive, concrete and propositional, and he asserts that "only clearly defined series of religious stages based upon sound research" is that outlined by Harms (1944), namely, the fairy-tale, realistic and individualistic stages.

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The basic design of Goldman's experiment included an analysis of children's responses to questions concerning three Bible stories (the burning bush, the crossing of the Red Sea, and the temptations of Jesus) and an analysis of children's responses to three pictures (a child entering church with his parents, a child kneeling at the bedside, and a child with a mutilated Bible). He then made a categorization of the responses into stages of religious thinking. Criticism of Goldman's design and statistical method was made by C. M. Fleming. She scorned Goldman's approach as basically "anecdotal" and illustrative only of various differences in children's vocabulary. Goldman replied to her criticisms and defended his cross-sectional interview method by citing Cyril Burt and Prof. E. A. Peel as having approved the design of his experiment. He remarked that "it is a great pity that a purist obsession with longitudinal studies, a dislike of Piaget and an emotive reaction to what is construed as "censorship" should colour Dr. Fleming's judgment." The responses to the questions about the three Bible stories revealed children's widespread confusion and misunderstanding about their correct meaning and relevance. Describing his results Goldman puts the responses in the first instance into five categories (1) Intuitive religious thinking, (2) Intermediate between Intuitive and Concrete religious thinking, (3) Concrete religious thinking (4) Intermediate between Concrete and Abstract religious thinking, (5) Abstract religious thinking. He summarizes his findings as indicative of three main stages in religious thinking. Up to a mental age of seven to eight years children show pre-operational intuitive thought; about seven to eight years and up to thirteen or fourteen years, children show concrete operational thought; and from thirteen or fourteen years onwards children are capable of formal (abstract) operational thought. Goldman's suggestion that abstract operational thought begins at a mental age of thirteen plus is of interest.

It differs from Piaget, who had suggested eleven plus, but it supports Peel's finding (1959) that "there is little evidence of children's capacity to set up possibilities to account for events and stories, as opposed to mere describing before the age of thirteen plus." 80

Goldman's results have raised serious doubts about the value and effectiveness of a syllabus of religious education which is based on an ad hoc selection of Bible stories unrelated to the various stages of children's mental development. Indeed, "the recommendation may have to be faced that very little biblical material is suitable before Secondary schooling." 81 His results suggest the need for a child-centred religious education which attempts to satisfy the basic needs of developing children at any given time, whilst also "throwing intellectual bridges forward into the future" so that developing religious concepts can cross over into adolescence. 82 Goldman suggests eight general conclusions arising from his research. (1) There is urgent need to examine the concepts which are central to an understanding of Bible material before such material is selected for a particular age group. (2) Severe limits to understanding are set by limited experience and mental maturation. The major problems appear to be literalism and concretistic thinking until early adolescence. Inappropriate teaching before this may only re-enforce crudities of thinking and childish concepts. (3) Concepts introduced too soon may lead to regressive thinking in religion. (4) There is a gap, widening in adolescence, between the pupil's theological view of the world and his logico-scientific view. (5) The major shifts of thinking appear soon after entry into Secondary School when some elements of religious insight become evident. (6) Some biblical instruction may be fruitful, however, for juniors in the upper classes. (7) Intelligible insights into Old

80. Peel E.A. (1959): "Experimental Examination of Piaget's Schemata concerning Children's Perception and Thinking, and a Discussion of their Educational Significance." British Journal of Educational Psychology, XXIX, Part 2, pages 89 - 103.


82. Ibid. page 230.
Testament material is difficult to achieve before secondary schooling begins. (8) Reform of most Agreed Syllabuses, (especially for the Junior stages) is urgently overdue.83

The main findings of Goldman's research are summarized in his book "Readiness for Religion" and the implications for the classroom situation more fully discussed.84 He has also published a series of work cards for pupils in Primary School and Lower Secondary School, 85 to which "Readiness for Religion" serves the purpose of a Teacher's handbook.86

Goldman's findings had a wide-spread impact when they were first published.87 In making an assessment of his work care must be taken to distinguish between the descriptive account of his results and the suggestions and opinions with which Goldman interprets them.88 Two of his findings are of major importance and have influenced subsequent thinking about the nature of religious education. Firstly, Goldman has demonstrated developmental stages in children's ability to handle religious concepts. Secondly, he has shown that there is a gap between the pupil's theological view of the world and his logico-scientific view, which widens in adolescence, and which is often accompanied by a regression in the ability to think about religious concepts. The implications of these findings continue to be a matter of

debate. Goldman's own suggestions point towards a thematic-structured syllabus using materials matched to the stages of children's intellectual development, but it is possible that a more radical re-structuring of traditional agreed syllabus material is required. The significance of his analysis of the process of children's religious perception is considered below.

(2) **Hyde**

Hyde (1965) tested 1,977 children in four schools, two of which were Grammar and two Secondary Modern. The object of his research was to make a broad enquiry into the problems of religious education by assessing religious behaviour, attitudes and attainment. "The schools were... deliberately chosen to exclude some of the difficulties which might arise in Religious Education, since it may be assumed that the problems which are encountered in more favourable situations will become more serious in less favourable situations." His results indicated that the children's attitude scores were very strongly related to their professed religious behaviour. The attitudes of the children were found to have considerable influence also upon their conceptual development. Children with higher attitude scores, indicating stronger religious involvement and interest, showed greater conceptual insight than children with lower attitude scores. Hyde demonstrated that continuous religious learning through the secondary age-range was related to higher attitude scores, and children with lower attitude scores comprised a group...
which showed very little conceptual development with increasing age "in respect of the ideas tested." "Orthodox ideas about the Godhead were found to be strongly related to religious attitudes, and even the younger children ... secured higher scores on this test if they had strong religious attitudes."^94

Having achieved this main result Hyde then attempted to secure evidence as to religious attainment. Other large groups of children were administered the tests which had already been used together with an attainment test based on a teaching syllabus of material taken from St. Mark's Gospel. Some of the tests were given before the period of experimental teaching and others followed it. Hyde reported less satisfaction with this part of his experiment and admitted that not all the problems posed by his design were successfully overcome. Although the degree of clarity secured was less than in the main test Hyde considered that "the results gave further indication of the importance of religious attitudes and behaviour in influencing the attainment of factual knowledge."^95

Hyde's discussion of his findings is of interest.96 He regards the pattern of development indicated by his results as "important." Church-going is associated with more positive religious attitudes, and without this experience of religious involvement religious attitudes become less positive as children pass through adolescence. Hyde remarks that this gives full support to Argyle's point of view that adolescence may be not only a time of religious decision but a time "when those who become irreligious" make their decision.97 Atainment was found to be significantly correlated with children's mental age, and with their scores in the tests for religious behaviour, the image of God, and Religious Knowledge. However, it appeared that there was no strong

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95. Ibid.


correlation between religious attitude and classroom attainment98 and Hyde assumes therefore, that there must be an indirect relationship. The positive correlations between religious attitude and religious behaviour reported from his main experiment fully justifies this assumption. Hyde emphasises that, in so far as the development of religious thinking is dependent upon positive religious attitudes and behaviour, it should be noted that the age at which marked deterioration of attitude is observed coincides with the period of mental development when critical thinking emerges.99 This is the most important finding of Hyde's research and raises a central question for religious education of the need to educate religious attitudes. Hyde makes the suggestion that the deterioration of attitude "is due to the growth of a critical attitude in adolescence inimical to religious belief and conditioned by a materialistic society. He quotes with approval Prof. Niblett's statement that "Religious Education, in essentials, is an education of attitude and awareness . . . a turning of the soul to light. To think of it more superficially is to deceive oneself about its nature."100 Hyde considers worship to be the key factor in such an education of attitudes.101 He is on less firm ground here and a fuller discussion of this point is made below.

Hyde's research is less well-known than the work of Goldman102 but his findings on the correlations between religious attitudes, religious behaviour, and religious knowledge attainment, are nonetheless important. The evidence which he provides of a decline in religious attitude at the crucial period of mental development when abstract-propositional

102. Note: e.g. No mention is made of Hyde's work in the American "comprehensive" handbook on "Research in Religious Development" ed. Strommen, Hawthorn, 1971.
thinking begins to emerge, gives empirical support to Goldman's finding of a regression in the ability to think about religious concepts. Hyde has shown empirically (what many teachers may have thought intuitively) that there is a positive correlation between attitudes and children's conceptual development. The implications of Hyde's work for religious education are three-fold. Firstly, he shows that the training of attitudes is a matter of overriding importance. Secondly, further research is needed to enquire into how attitudes are formed, inculcated and modified. Thirdly, a strategy for religious education must recognise that the affective and cognitive aspects of religious education are interconnected.

(3) Loukes:

(i) Loukes (1961) published the results of an enquiry undertaken on behalf of the Institute of Christian Education with the specific terms of reference "to enquire into the varying approaches to religious education, during the third and later years in non-selective secondary schools." The enquiry had no intention of using statistical methods, "partly in the hopes of moving closer to the human situation of the adolescent." It was concerned to discover not how much fact the school leaver knows about the Bible, but how far Christianity makes sense to him and helps him to make sense of his own human condition. Two methods of collecting data were used. Firstly, a number of schools were invited to arrange for a class discussion to be recorded; secondly, children in these schools and also other schools were asked to comment in writing on some selected statements from the tape recordings. Six schools recorded discussions and a further eight used the questionnaires. The number of questionnaires completed varied from school to school, between twenty and fifty, making a total of five hundred and two. Loukes prefers to call them "opinionaires" - since the object was to obtain not finality but sincerity - "to discover, not what glib answer these children would give to a glib

104. Ibid.
question, but how their minds were working." The quotations on which the children were invited to comment covered the following topics: God, Jesus, the Bible, Scripture Lessons, heaven, suffering, prayer, going to church and Religion and everyday life.

Summarizing the results Loukes remarks on the consistency of the children's comments, which give evidence of a "crystallization of structure" and which show that they are beginning to hold their own personal viewpoints. He concludes that the fourteen year olds in his sample are interested in religious issues and are ready to take such issues seriously. Loukes argues, therefore, for a problem centred "Christian education," the defence of which must be made "to rest on the same open ground as that of all our education," and which prepares the school leaver for the adult world into which he will soon be precipitated. He sees the special task of the secondary school as an examination of religious concepts, directed towards the shedding of infantile forms and the acceptance of adult ones. Such an analysis, he suggests, could be approached through "a problem syllabus," dealing with such topics as friendship, snobbery, work, leisure, suffering, death etc., and which would facilitate the adolescents' transition towards autonomy in religious ideas.

(ii) Loukes published his important New Ground in Christian Education in 1965. He began this research with the simple question, "Are there to be found anywhere instances of 'successful' religious education, where lessons are not 'totally boring', where the teaching reaches the condition of the young, where the subject truly 'makes you think for yourself'?" The response to a letter written to all the Local Education Authorities, and all the training colleges and university departments of education produced a list of some five hundred schools from which fifty schools were selected

107. Ibid. page 96.
at random for a pilot survey. Another questionnaire was sent to the remaining four hundred and fifty schools and eventually out of the 60% who replied eleven schools were invited to let some of their pupils work a series of tests.\textsuperscript{109} Apart from the evidence from the tests completed by the pupils, further material was assembled from questionnaires to teachers, and from a number of informal conferences of teachers who were asked to appraise the findings and "press on" to the question concerning what "radical changes" are required. Loukes recognises the limitations of his study and makes modest claims for his findings. "It would be idle to pretend that a totally factual and impersonal report is possible, or that it would be of much value if it were."\textsuperscript{110} "Nothing can be 'proved', in the sense of being isolated from random influence, or traced in its cause-and-effect from beginning to end; but there may still be value in asking questions and measuring . . . the effectiveness of our work."\textsuperscript{111} He describes his argument as a combination of fact and hunch that claims to do no more than give the "feel" of the situation and a point of view that offers the hope of progress.

The analysis of the questionnaires to teachers revealed a wide variety of aims, from teaching biblical knowledge on the one hand to giving insight into personal and public moral situations on the other. Teachers' answers indicated a considerable gap between "desired aims" and "judged achievement." Of all the "categories of aims" listed, knowledge of biblical events was generally regarded by the teachers as meeting with the greatest amount of success. The results of a religious knowledge test,\textsuperscript{112} however, indicated that teaching the Bible is "lost effort."


\textsuperscript{110} Ibid., page 17.

\textsuperscript{111} Ibid.

\textsuperscript{112} N.E. Loukes used the same test as used in 1961 by the University of Sheffield research. c.f. \textit{Religious Education in Secondary Schools, 1961} op. cit.
"The inescapable conclusion of this test, applied to pupils who have been conscientiously and intelligently taught, in schools that take the whole venture seriously, is that the mere facts of the Bible are not known to an extent that makes the meaning of the Bible comprehensible." 113

Loukes concludes that we must begin our thinking with the stark fact that the effort towards offering our pupils the Bible is misdirected. 114 Quoting Goldman's research with approval, he does not find this fact disconcerting but recognises that until a child has acquired the intellectual apparatus needed to penetrate the meaning of the Bible, biblical teaching is bound to fail.

Having ascertained that the good schools in his sample were failing to teach the facts of the Bible successfully, Loukes then attempted to evaluate whether they were succeeding in helping children to develop "the tools of thought about religion." Assuming that fourteen year olds are capable of abstract thought, he administered a multi-choice religious attitudes test on the themes of the Bible, the significance of Jesus, belief about creation, and the problem of suffering. The fine distinctions claimed by Loukes for the questions in this test are open to debate 115 but despite this limitation it appears certain that the results do give "evidence of muddle." 116 Further tests on "Moral attitudes," and "the Christian Image" were interpreted as more encouraging. Loukes found that the prevailing views on attitudes to parents, experiments on animals and colour prejudice were "temperate, sensible and compassionate" and the Christian Image test produced an overwhelming general impression" that the ideal Christian is generous, warm and outgoing. Loukes is cautious in interpreting these results except in the

114. Ibid. page 57.
115. Note: This point is discussed further below.
most general way. He thinks they point towards a religious education which succeeds because teachers care and pupils know themselves to be loved. His general judgment on religious education at its best is "that the means are on the whole mistaken, but that even these means have proved a vehicle of communication for an ill-defined but moving ideal of human personality."\(^{117}\) Loukes argues that religious education must be understood as helping pupils in a personal search for ultimate values.\(^{118}\) It must be seen to be relevant to the human situation, and must be within the range of the children's particular stage of intellectual development.

"For if parents do not in general support it, the children's minds will be closed against it: and if the children's minds cannot grasp it, they will be muddled by it."\(^{119}\)

Three fundamental demands must be met; the religious educator must take seriously the adolescent's own view of life; his approach to the Bible and theology must be open and critical; and the basic content must be a line of progress from experience through analysis, to personal choice.\(^{120}\)

Loukes' influence on the new religious education has been considerable. His research is characterized by open-ended enquiry based on questionnaires and tests, and is not intended to be understood as a controlled empirical experiment subject to verification by statistical procedures. Indeed, Loukes gives the impression of a measure of scepticism with regard to the value of


\(^{118}\) Note: Loukes argues("Death of a Subject", T.E.S. no. 2760, 12 April 1968, p. 1230) that an R.E. dimension in the curriculum will one day replace R.E. as a special subject on the timetable. Such a dimension would attempt to answer the question "What is life like?" and would provide answers on the three levels of fact, value and ultimate significance.

\(^{119}\) Loukes, 1965, op. cit. page 96.

\(^{120}\) Ibid. page 111.
such methods for assessing the effectiveness of religious education.\textsuperscript{121} Despite these limitations he has gathered together much useful material from which certain clear insights have emerged, and these insights have raised fundamental questions about the nature and effectiveness of religious education in schools. Two matters to which Loukes has directed attention are likely to continue to be central issues in the debate on religious education. Firstly, he has produced useful evidence to show that a religious education which is based primarily on teaching the Bible is ineffective and he has stated unequivocally that such teaching is wasted effort.\textsuperscript{122} This finding questions the appropriateness of the majority of Agreed Syllabuses which continue to contain recommendations for the teaching of a large amount of Biblical material.\textsuperscript{123} Secondly, Loukes recommends a "new ground" for religious education in which the syllabus is based on concerns which are relevant to the contemporary problems faced by adolescents. Such a syllabus would be orientated towards helping pupils in "a personal search for ultimate values."

\textbf{(4) Cox}

Edwin Cox (1967) investigated the religious beliefs and attitudes of 2,278 pupils in 96 grammar schools. He rejected the Likert technique as an unsuitable tool for his purposes in favour of a questionnaire embodying a series of multi-choice questions and semantic differentials. His method provided information susceptible to statistical analysis whilst at the same time allowing his subjects to comment freely both on the questions and their answers. Questionnaires were administered to pupils, to the Heads of the Religious Knowledge departments of the schools, and to the pupils' parents. Much of the most revealing information

\textsuperscript{121} c.f. Loukes, 1965, op. cit., page 17
\textsuperscript{122} Ibid. page 57.
\textsuperscript{123} e.g. Hampshire Education Committee: Approaches to Religious Education - a handbook of suggestions (1972) Note: This is an excellent tool for teachers, but it contains a strong bias of Biblical material.
came from the essay type answers, and Cox acknowledges the value of this method whilst recognising also the limitations imposed by the subjective nature of the assessment procedures. The results of this research provide considerable information about sixth formers' attitudes towards the Bible, the Church, the religious education they receive, moral questions and certain basic Christian tenets. Cox's main findings may be summarized as follows:-(i) He found a strong tendency to describe God in traditional theological terms. 124 A good portion of the "most religiously inclined" pupils appears to think that official teaching (of the Church and school) is asking them to accept too crude and materialistic a doctrine of God to meet with their approval. Cox remarks that "preachers and teachers seem to be using symbolic imagery without making its nature clear and are mistakenly thought to be making factual statements," and, therefore, "some clearer thinking on the nature of religious language seems indicated." 125 (ii) Cox expresses some reservation about the questions used in his questionnaire to elicit responses about the divinity of Jesus. His results indicated "a slight tendency for fewer to believe in the divinity of Jesus than in the existence of God." 13.8% of his subjects wrote to express acceptance of the divinity of Jesus and 9.4% wrote rejecting it. Despite the comparative smallness of these groups, Cox emphasises that they are wrestling with "what is perhaps the biggest theological problem of our age," and recommends, therefore, that teaching of the Christian doctrine of the incarnation must include discussion of its possibility and also its underlying metaphysical difficulties. 126 Disbelief in the resurrection of Jesus provides a strong hinderance to belief but the number who disbelieve it yet go to church, is notably high. 127 (iii) An interesting finding was the difference between boys' and girls' attitudes to Jesus. The male attitude was found to be more rational and the female slightly more mystical. 128

125. Ibid. page 26.
126. Ibid. page 41
127. Ibid. page 44.
128. Ibid. page 47.
(iv) This corresponds with another result of this research which indicated that boys are generally less religious than girls and have a less benevolent conception of God. Moreover, girls in co-educational schools are significantly less "religious" than girls in single-sex schools. 129 (v) As might be expected, the results showed a strong connection between parents' and children's beliefs, but this connection was found to be stronger in the case of girls than of boys. (vi) The answers to questions about life after death indicated considerable confusion and provided evidence that "in religious thinking they have not been helped to make the transition from a childish concretistic attitude to a more adult and spiritual one." 130 (vii) Three attitudes to the Bible were discernable: it was rejected; it was accepted as an authority for guidance; it was seen as a useful book for moral guidance etc. (viii) An important finding was that 36.7% of the boys and 58.3% of the girls were regular churchgoers; whilst 29.2% of the boys and 29.5% of the girls claimed to be occasional attenders. 131 These percentages are considerably higher than what is true of the general school population.

Three general trends discernable in sixth form thought about religious matters are noteworthy from this report. (a) They are searching for a satisfying reason for existence (b) They demand "proof" for their beliefs, (c) They find it difficult to think in other than material terms. 132

The research of Goldman, Hyde and Loukes has been concerned with the problems of religious education at the Primary and Secondary School levels. A distinctive aspect of the research of Edin Cox is that he has directed attention to the beliefs and attitudes of sixth formers in grammar schools. Both Goldman and Hyde have emphasised that there is a positive correlation between a mental age of about thirteen plus and the ability to handle religious concepts adequately. By

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130. Cox 1967, op. cit., page 61
131. Ibid. page 89.
enquiring into the religious beliefs and attitudes of sixth formers in grammar schools, Cox has chosen subjects for whom the difficulties of abstract propositional thinking would be minimal. His work, therefore, provides insight into the measure of effectiveness of religious education in schools, viewed as it were at the end of the process. His findings are cause for disquiet and give clear evidence that traditional methods in religious education are failing to provide some of "the most able" pupils with the intellectual tools necessary to handle religious concepts coherently, for whilst Cox's subjects show a genuine desire to discover purpose and meaning in life, he finds that the interaction between their "empirical and teleological thinking" leaves them unable to write on the subject of religion except in a confused and nebulous way. Cox is hesitant to draw conclusions from the description of his research. He recognises that the difficulties of belief which he describes are probably not confined to sixth-formers but "probably constitute the major theological problems of a society that has recently been transformed by science and technology," and therefore, it would be premature to make statements about the form and content of religious education in the immediate future. However, one conclusion is clear: aims in religious education must change, and "until some new pattern emerges," teachers should see the future as a time for experimenting with new ideas and methods.

Cox's contribution to the continuing debate on religious education is important particularly for his insistence on two points. In his discussion on the changing aims in religious education he has emphasised the importance of the cognitive aspects of children's development. Cox argues that, although the affective aspects of children's development have a place in religious education, the intellectual bases for religious belief must be rigorously examined. Thus contemporary theological thinking, must,

134. Ibid. pages 177 - 178.
on Cox's view, be reflected in the religious education syllabus, and must inform the content of the material taught in the classroom. The second point strongly emphasised by Cox, is the need to recognise the value of empirical research techniques for evaluating religious education methods. The insights derived from his own research, and also from the work of Goldman, Hyde and Loukes provide the basis for "the strategy of religious education" which he recommends.\(^\text{137}\) The value of theological scholarship and the importance of empirical research are likely to remain two points of central significance in the continuing debate on the new religious education.

\(^{(5)}\) Alves

Colin Alves (1968)\(^{138}\) published a report undertaken on behalf of the Education Department of the British Council of Churches. The purpose of the survey was to find growing points in the current situation, to discover some of the places where R.E. was meeting with success, and to identify the factors underlying such success.\(^\text{139}\) The survey proceeded in three stages. Firstly, a list of schools from 155 L.E.A.'s was drawn up, of whom 539 accepted an invitation to share in the survey. Twenty thousand copies of a questionnaire (entitled Survey 65) were sent out to these schools for completion by "the highest ability stream" of their fourth formers, and eventually the results from 520 schools were available for analysis and comparison. After marking the questionnaires six mean-scores per school were arrived at. These were then reduced to two scores per school - one for attainment and one for attitude. From these results 98 high-scoring and 102 low-scoring schools were invited to take part in Stage 2. The second stage consisted of a batch of questionnaires addressed to the heads of the schools and to the R.E. staff. The facts given in the replies enabled the researchers to build up a picture of the general life of each school, as well as of its methods and approaches particularly in the field of R.E. The third stage was an investigation into 80 high-scoring schools. Each school was visited by two

139. Ibid. page 28.
members of the British Council of Churches special Committee and then further questionnaires were completed by pupils from the 5th and 6th forms. The final set of questionnaires (entitled Survey 666) was completed by approximately 1,360 pupils. Alves describes his results in considerable detail with several appendices and 56 diagrams. Commenting on the overall pattern of pupil responses he notes that "the criterion of success in attainment had to be subjectively arrived at" and that on the basis of that criterion one third of 335 modern schools failed the test whereas 182 of the 185 grammar schools passed. However, "considerable later deterioration in grammar school performance" was observed. Success in "attitudes" was more objectively arrived at (being built into the structure of the tests.) "The majority of pupils exhibited fairly favourable attitudes . . . . though there was again strong evidence of a later shift of position among sixth formers toward a less favourable attitude." This was also the case with religious behaviour. In analysing the impact made by R.E. in the different regions, Alves notes that particularly in the south-west the R.E. may be "successfully feeding on and feeding into" the general cultural religious influences of the area, but that in the London conurbation little welcoming response to R.E. is observed, and indeed the R.E. being offered there "is probably causing a difficult situation to become even worse." The results regarding syllabus and method indicated that 90% of schools used a

140. Alves Colin (1968) op. cit., page 35.

141. Ibid. pages 59 - 60. c.f. A more recent study using Alves' questionnaire with 282 children showed "attitudinal patterns . . . broadly similar to those of Alves' sample, "and . . . suggested . . . that in contrast to the effect of school religion, adolescents remain neutral, if not slightly positive towards aspects of Christianity." However, the later study, in contrast to Alves findings, found that adolescents were less likely to accept the Christian labels, and more likely to reject completely prayer and church attendance - I. Reid (1977): Sunday School attendance and adolescents' religious and moral attitudes, knowledge and practice." Learning for Living, 17 (1) Autumn, 1977, pages 3 - 8.

142. Alves, op. cit., page 70.
syllabus based on the Bible, during the first four years; and 50% of teachers relied heavily on the Agreed Syllabuses in planning their work. High-scoring schools were positively associated with members of staff who had been teaching R.E. for fifteen years or more, and negatively associated with those teaching it for a shorter period, particularly when it was under five years. The results from Survey 666 (amongst older pupils) were subjected to three analyses.

(i) Sixth formers were compared with fifth formers, and a significant difference was shown in "the ability to discriminate without prejudice" when linked with increasing intellectual maturity. (ii) Sex differences were noted, and for both fifth formers and sixth formers more girls achieved the maximum score than did boys. (iii) The association between prejudice and religious belief was examined, showing that sixth form level prejudice is associated with the non-Christian position rather than with the Christian position.

Alves concludes his chapter on the results of Survey 666 with the comment that there are signs of "insufficient rigour in the disciplines of open and responsible thinking which should undergird any programme of religious education, particularly at sixth form level." 143

Two of the findings published by Alves in 1968 are of particular interest although his book provides a wealth of evidence of the effects of religious education in schools. Firstly, his discovery that despite the insights derived from recent research, 90% of schools continue to base their work heavily on the Bible, points towards the need for L.E. As to organise conferences and in-service training courses through which teachers can be made aware of contemporary developments. Secondly, his finding that in the London conurbation area "little welcoming response to R.E. is observed" compared with more favourable responses observed in other parts of the country, raises an important sociological question into which the need for further research is clearly indicated.

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143. Alves, op. cit. page 129.
Peatling (1973) developed a research instrument entitled "Thinking about the Bible." The instrument consisted of a series of questions based on Goldman's (1964) interview schedule using a multi-choice response format. These multi-choice responses had been carefully developed, using item analysis procedures, to provide discrimination between the stages of concrete and abstract levels of religious thinking. The three stories used by Goldman, and used as the basis for Peatling's questionnaire, were (a) Moses and the Burning Bush, (b) The Crossing of the Red Sea and (c) The Temptations of Jesus. 144 The initial study tested 1994 students "across the nine school grades 4 to 12". In addition to completing the research instrument, information was obtained on the student's measured intelligence, and chronological age. The results indicated that growth in religious thinking could be described in terms of periods of slower and more rapid growth or change.

"For example, periods of noticeably 'slower' growth in Religious Thinking appeared to approximate plateaus, as specified in Piaget's theory of cognitive development, where periods of relative equilibrium are posited as a part of the sequence of developmental advance. Periods of noticeably 'rapid' growth in Religious Thinking, then, appeared to indicate times of transition from one such plateau to a next higher one. This pattern of plateaus was markedly evident under the metric of school grade-level, evident under the metric of chronological age, and still statistically significant under the metric of mental age-level." 145


This finding was consistent with Piaget's theory of cognitive development. But in contrast to Goldman's finding of the transition to abstract thinking at a Mental Age of 13 years or 14 years, Peatling found the dominance of abstract thinking "not until grade 10", that is, later - at a chronological age of 16 years. Peatling claims on statistical evidence that mental age, however, is an efficient predictor of level of religious thinking. The research instrument has been used by other researchers, including Newton and Laabs, and Tamminen in Finland (in translation).

Peatling's work is important although certain reservations about its significance need to be noted. In a report about his research programme Peatling indicates that he regards himself as "a research orientated religious educator."

He reports that "1977 should see data in hand for 8,222 students and 3,396 adults, a total of 11,618. That is a lot of data." It would appear that this data consists of 11,618 test papers on his Thinking about the Bible instrument. This instrument, as noted above, is based on the three Goldman stories. On this tiny structure, but with considerable statistical erudition and sophistication Peatling makes what appear to be exaggerated claims. For example, Peatling declares:

"Religious thinking appears to be a reflection of some very basic human developmental process that religious educators can only encounter, not ignore."

And,

"... we should be coming close to a time when, rather generally, the simple incidence of the measurable types of Religious Thinking may be discernible. Then and only then, will religious education be able to move with considerable precision and confidence to adapt both content and method to the student. Insight, experience, philosophy and theology may always be necessary, but religious education may be close to having some verifiable knowledge, as well as an

abundance of wisdom. If so, the future may hold a science of religious education." (Peatling's italics)

A certain amount of emotive language is detected in the above quotation. Religious thinking, it is noted, is presented with capital letters. Whilst one must be full of admiration for the aims of the research and also for its scope, Peatling's claims for the significance of his work need to be treated with caution. Perhaps the most important finding of Peatling's study is that it lends general support to Goldman's findings and highlights the distinction between "concrete" and "abstract" religious thinking. It is not clear, however, that this is necessarily the most important factor in the development of religious thinking. 147 A criticism made by Cox of Goldman 148 is applicable here also. Cox pointed out that by investigating how children apparently think about certain concepts and stories one is in no way investigating logically what kind of thinking they are capable of, given different instruction and teaching.

(7) May

Philip May (1977) reports a research project started in 1973 involving 4,943 pupils (2,414 boys and 2,529 girls) in schools in the North, the Midlands, the South, and the South-West of England. 42% were fourth formers, 33% were sixth formers and 25% were primary school ten to eleven year olds. May developed a research instrument consisting of sixteen questions related to six topics - prayer, church-going, the Bible, life after death, loving God and human goodness. The purpose of the questions was:

"... to try to discover what kinds of religious judgments children and young people make, whether there is any change or development of judgment as pupils grow older and if so, of what nature, and whether there are any discernible sex, area and class differences in the judgements offered." 149


The questions attempted to elicit judgments rather than knowledge. May's research procedure is to make a detailed analysis of the pupils' responses. It is argued that since pupils put forward various reasons and justifications to support similar religious judgments,

"... it is possible to infer from these justifications different modes of religious thinking."

His classification proposes a series of labels, for example, for the questions on prayer, placating, relieving, idiosyncratic, expedient, intrinsic, irrational conviction, conforming, other-obeying, empathic, reforming, authoritative, innate, effecting, committing, revelatory, transforming. These labels are plotted on a six-box table, the two categories theocratic and theotechnic, by the three categories self-centred, other-centred and God-centred.

The final research report is not yet available but preliminary results indicate that different patterns of religious thought are not, as might be supposed, mutually exclusive.

"In all three age groups it seems likely that the different modes of thought exist simultaneously."

Also,

"And again as one would expect, older pupils are able and more ready to generalise and answer in abstract terms. Such differences are explicable simply in terms of increased age and normal intellectual development."

Further it is interesting to note:

"... that boys appear to be more sceptical than girls about religious matters."

and,

"... that children in the south tend to be more sceptical than children in the north."

Philip May's work is of considerable interest. Perhaps he is hoping to develop a "gig/emp/krat" type scheme for religious judgments, parallel to the Wilson model for moral judgments.150 He may well succeed, for he finds it

valuable to report, for example, that in his sample of 5,000 pupils, the fourteen to fifteen year olds provided 2,622 reasons why people pray, whereas the sixteen to eighteen year olds provided only 2,374 reasons, and the ten to eleven year olds only 1,830 reasons. In fairness to Philip May, he makes no unsupported claims for his work, and many of his findings will be of interest to the religious educator. For example, reporting about prayer, he observes,

"Not only is it essential to religion, but as this research clearly shows, children and young people find it fascinating."

(8) Petrou.

Petrou (1973) investigated the degree and level of "religiousness" of Greek young people at the age of twelve, fifteen and eighteen. His research was carried out with 609 pupils almost equally divided into the three ages under investigation and also between boys and girls. He constructed a questionnaire in which items concerning religious knowledge, understanding religious texts, attitudes to religious instruction, beliefs, religious practice and the connection between morality and religion were included. Petrou defines religiousness as that which characterizes a religious man (his "biosis" of religious values), and religious experience is understood as "a peculiar mode of feeling, willing and thinking." The results of Petrou's investigation reflect the strong influence of religion in contemporary Greek society and provide an interesting point of contrast with British studies. Petrou found, for example, that religious knowledge increases with age and that boys tended to perform better than girls at the ages of fifteen and eighteen. There was a high degree of favourable attitude to religious instruction. 96.5% of twelve year olds found religious instruction interesting and helpful compared with 84% of the fifteen year olds, and 83% of the eighteen year olds. 91% believed "that what is said about Jesus Christ in the Creed is true." With regard to church going, Petrou reports that a decline in going to church willingly is

observed with increasing age. Nonetheless, 88.5% of twelve year olds "go willingly" compared with 55% of eighteen year olds, and with 68.5% of the total sample. Petrou concludes his study with an observation of the strong influence of family life upon the degree of religiousness of young people.

"... the degree of religiousness which exists today owes its existence principally to the influence of the home."

In discussing the educational implications of his research Petrou indicates the need for religious instruction in Greece to become religious education, and for religious education to be related to children's experience. The theoretical framework of Petrou's study, however, is limited, and the items on his questionnaire are evidence of this. It is not clear, therefore, that his conclusions can be derived logically from his research findings. Nonetheless, his study provides a valuable glimpse of attitudes to religion amongst adolescents in another culture.

(9) Beechick

Beechick (1974) examined the interpretations given by children of different ages of three parables (The Two Houses, the Potter, and the Rich Farmer). She indicated three stages of development in understanding the meaning of the parables. The first stage was understanding in purely literal terms, the second stage was the ability to apply actual events of the parable to their own situation, and the final stage was when they could use deeper insight into understanding the general meaning and application of the parable. Fifty children were used in the research which followed the procedure of semi-structured interviews, recorded and transcribed, and then scored for eight items by two judges working independently. Beechick concluded that:

"... there is an age related sequence in the levels of children's understanding of these parables,"

and,

"Analyses of these levels of children's understanding lead to the conclusion that they have characteristics similar to Piaget's stages and to Spearman's laws of thinking." 153

Murphy (1976) calls into question the whole idea of stage development theory as an appropriate way to describe the development of religious thinking. He argues that a stage development theory, if it is to be acceptable:

"... needs to be based on some definite cognitive restructurings in the child, that are producing changes across a whole range of behaviour." 154

In an overview of stage development theoretical studies he refers to the work of Loomba 1942, Harms 1944, Elkind 1961, Long, Elkind and Spilka 1967, Goldman 1964, Deconchy 1965 Peatling 1971 and Beechick 1974. Murphy notes that many of these very different research studies have in common the fact that they propose three stages. He observes:

"... it could well be that if this approach of trying to derive theoretical stages from observational studies continues along these lines, we will continue to get as many stage developmental theories as we have investigators." 155

Murphy argues that the way in which religious thinking develops is not fully understood, and until we understand whether or not the development of religious thinking is in some way stage dependent, we must be cautious in the kinds of educational applications which are often drawn from stage development theories.

Murphy himself conducted an experiment with two hundred children taken from four different schools. 156

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155. Ibid.
of fifty from each school was made up of ten children of each age from seven to eleven years old, and they were tested on four parables. Comparisons were made between the use of the semi-structured interview assessment of the children's responses, and a multiple-choice questionnaire. Murphy's results were seen to lend some support to the findings of earlier researchers (Beechick 1974 and Ainsworth 1961) by showing:

"... a developmental increase in the children's levels of understanding of the parables with increasing age."

However, by breaking down the analysis and scrutinising the performance on individual parables, it was found that the children's performance varied between the parables. Moreover, when a modernized version of a parable was used, it was shown that the children's level of understanding of the parable's meaning could be improved. Yet another difference was seen by comparing performance on semi-structured interview responses and performance on a multiple-choice questionnaire. The results, which must be cautiously interpreted, showed that the multiple-choice questionnaire significantly improved the performance on one parable (The Two Houses), whereas it had little effect on the results for the other (The Pharisee and the Tax Collector).

Murphy's findings suggest that the trend towards greater understanding with increasing age is not a simple development, but can be influenced by a number of factors.

"The cognitive limitations of the younger children are not straightforward, and may be varied as a function of both the structure of the material and the way it is presented."

Little support to a stage development theory of the development of understanding of biblical parables is provided by this study. Murphy argues that research findings must be viewed with extreme caution for:

"... in many cases researchers have lept rather too hastily from limited experimental findings into fairly rigid, all embracing cognitive stage

157. Murphy (1976) op. cit.
Murphy believes that research into the development of children's religious thinking needs:

"... to move out of the wilderness of the stage development theory into a direction which will produce the construction of more realistic theories."\(^{159}\)

He suggests an exploration of the question as to whether religious thinking is more dependent upon religious language development than it is upon cognitive development, within the more general context of the Vygotskian controversy of the relationship between language and thought and whether or not they develop independently. He argues that several experimental techniques are already available (for example, Levelt 1970, the triadic comparisons technique) and can be applied profitably to studies of religious language and religious word meaning development.\(^{160}\)

(11) Gates.

Gates (1976) investigated "religion in the developing world of children and young people" by using a series of extensive oral interviews of the semi-clinical variety.\(^{161}\) He preferred this method to the use of written questionnaires on the grounds that:

"... the questionnaire can far more easily give an impression of a static and fixed entity, than reveal the fleshly dynamic of personal identity."\(^{162}\)

Gates chose a broad approach, employing a variety of techniques, and giving priority to the gathering of material which was qualitatively descriptive.\(^{163}\) His sample included four schools in the north west (2 primary and 2 secondary) and four schools in the south east (2 primary and 2 secondary).

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160. Ibid.


162. Ibid. page 10.

163. Ibid. page 11.
Group interviews were conducted with 125 boys and girls from each of the eight schools comprising a total of 1,000 children. 50 boys and 50 girls of each age range between six years and fifteen years were represented in this sample. Individual interviews were conducted also with 25 pupils from each school chosen by reference to religious allegiance. Thus, 201 pupils were given individual interviews; of these, 82 were Anglicans, 38 were non-conformists, and 81 were unattached. Subjects from religious minorities (Roman Catholic, Muslim, Jewish and Sikh) were also interviewed. Gates' group interview material included a modern fairy-tale, a Buddhist parable, unfinished sentences and drawing a picture of God on a blue sheet of paper. The interviews were designed to reveal:

"... the allegiances, beliefs and values which boys and girls hold or express in the course of their trying to understand the world, and how their understanding changes as they grow older." 164

Gates' description of the text, method and purpose of the individual interview schedule is one of the most interesting sections of this thesis. It was carefully structured through a series of twelve stages beginning with games children play and ending with a discussion of Father Christmas and God. Stimulus materials included reference to funerals, thunder, the Atom Bomb, rockets, Apollo 13, prayer, churches and world religions. The responses were analysed by various scales. Thus strength of belief was plotted on a four-point scale, and comprehension items (following a Piagetian model) were analysed according to a five-point ordinal scale. The responses were carefully tabulated and comparisons made. Amongst Gates' many interesting findings, the following are of particular interest. Gates records that a Piagetian developmental pattern was confirmed in children's understanding of mythological material, 165 interest in social service increases with age, comedy programmes are the most popular choices for television viewing and religious programmes

165. Gates, 1976, op. cit., Chapter IV
are the least popular. A child's picture of God was "generally confirmed as a consistent expression of his . . . framework of personal understanding." 166 In a chapter on the coherence and consistency of a child's understanding of religion and life, Gates claimed that:

"... believing was a thoroughly popular activity for the boys and girls interviewed, and they showed themselves to be both capable of discrimination between different beliefs and in the interests not least of consistency, ready to put their own beliefs to test in conversation." 167

Gates regarded this to be perhaps the most important finding to emerge from the interviews. 168.

In his concluding chapter it is clear that Gates regards the educational significance of his study as descriptive evidence of "religion in the curriculum of life." He summarizes his conclusions as:

(i) that limits in theological comprehension are not unique - i.e. there are comparable limitations in the child's understanding of politics and science as well.

(ii) that each child's developing world is a rich one and religion is an important element in it.

(iii) religion "comes through" to a child in many different guises, e.g. family attitudes, formal teaching in the religious community or school, the neighbourhood, the media. And more implicitly, (says Gates) "it may be provoked by personal reflection in these or any other context in which a child is quite simply aware of being."

As a descriptive study of a child's understanding of religion, defined in a broad inclusive sense, and as evidence of children's interest in religious questions, this is valuable research.

166. Gates, 1976, op. cit., Chapter VI.
167. Gates, 1976, op. cit., Chapter XVI.
Francis (1970) developed a reliable and valid attitude scale to operate satisfactorily among children aged eight to sixteen years. Francis claimed that:

"... this reduced research design embraces a larger age range than any previous research in the area of the attitudes of the school child towards religion."

Three questions were posed in the design of this research. Firstly, whether the trend towards deterioration in attitude towards religion is a linear trend throughout the period of compulsory schooling, or whether the trend displays non-linear tendencies. Secondly, whether there was any difference in pattern between the scores for boys and girls. Thirdly, whether or not the child's attitude towards religion is related to his or her extra curriculum participation in "the activities or ethos of the religious dimension," and whether such participation is related to age. Francis states that two concerns "delimit our usage of the concept of religion." Firstly, the definition advanced must be consistent with the comprehension and experience of the primary school child. Secondly, the definition advanced must be consistent with the understanding of the concept of religion presupposed by the literature concerned with the concept "Readiness for Religion." Francis states:

"... our definition of religion must be seen to emerge from an institutionally orientated understanding of Christianity."
The thoroughness of this scholarly research report is impressive both with regard to the sophistication of the statistical procedures employed for the development of the Attitude Scales and for the attention to detail with which the research is reported and discussed. Three Guttman type scales to measure religious attitude, religious behaviour and religious involvement were administered to a sample of 900 children in two secondary and two primary schools. This project was conducted in 1974 and the value and major importance of Francis' work is unquestionable. His findings indicate (i) that the reported deterioration in attitude towards religion among secondary school children should be considered to begin during the primary school years and to extend into the secondary school "in a linear fashion." (ii) that girls hold more favourable attitudes to religion than boys, that girls consider themselves to be more involved in religion than boys, and that girls participate more actively in religious practice than boys, and (iii) that where high behaviour scores and involvement scores are maintained attitudes towards religion do not deteriorate according to age. 173.

Two critical questions, however, must be asked about the significance of the research. Firstly, the definition of religion employed for the construction of the attitude scale is narrow and exclusive and linked directly to an understanding of traditional institutionalized Christianity. This limitation imposes a constraint on the interpretation which must be given to the results. Secondly, the research instrument constructed by Francis is designed for use with children between the age of eight and sixteen, and although the construct validity of the attitude scale has been established satisfactorily by statistical methods, 174 the wide differences in perceptions which children of such a broad age range must inevitably bring towards the meaning of the concepts used in the questionnaire, must impose a limitation which raises doubts regarding its content.

validity. Francis himself acknowledges that:

"... the problems involved in research regarding the religion of the child are problems of the kind common to new fields of enquiry in which the researcher is unable to presuppose established methodologies and clear cut conceptualizations."

Moreover:

"... it is not possible to import into the area of religious research firmly rooted conclusions about attitude measurement itself."

Despite these reservations, Francis appears not to be concerned with the problem of content validity to which reference has just been made, and seems generally satisfied with the total validity and reliability of his instrument.


A second project conducted by Francis in 1974 was designed to examine the influence of the school upon the primary school child's attitude to religion. Two specific aspects of the school were examined. The first was the form of religious education provided and Francis notes that in local education authority primary schools there seems to be three main approaches for religious education. These three approaches may be described as "the form of teaching advocated by the type of agreed syllabus which emerged after the 1944 Education Act," the form of teaching "which emerged as a result of the West Riding initiative in 1966," and "no religious education at all."

Approximately 3,000 third and fourth year junior school children were given Francis' Attitude Questionnaire in schools which were selected as representative of the three approaches to religious education already outlined.

176. Ibid.
Francis notes that three of the conclusions from this research project are of considerable importance.\(^{178}\) Firstly,

"... it was found that unfavourable attitudes were more associated with pupils taught according to the new style of syllabus than according to the old style syllabus."

Secondly,

"... it was found that unfavourable attitudes towards religion were more associated with pupils taught in some Church of England aided schools than in local education authority schools."

Thirdly,

"... it was found that Roman Catholic schools contributed greatly to the pupils' favourable attitude towards religion."\(^{179}\)

These findings are of much interest, although one suspects that the association between negative or positive attitudes and the school are interpreted by Francis as being of a causal nature, when in fact such a connection has not been demonstrated empirically. Another reservation about these results is that Francis did not have a random sample. For example, it is likely that in the Roman Catholic schools used in this research, the majority of pupils would have been Roman Catholic; this factor must be taken into account when interpreting Francis' findings.

(iii) Later Projects.

During 1978 four new projects were started but little information from these studies is yet available.\(^{180}\) One of the new projects is concerned with the religious development of the slow learning child, including the physically handicapped, the ES\(N\) (M) child, and children in community homes. Another project based at Reading...

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179. Ibid.
University is using the attitude scale in the area of comparative education, comparing the attitudes of young people in different countries. A third project is concerned to use some of the items from Francis' attitude scale as part of an Opinion Survey on behalf of certain Evangelical organisations. The fourth project is based at London University Institute of Education and is organised as a replication of the two original 1974 studies. The hope is that this will be the beginning of an extensive longitudinal study of children's attitudes to religion, conducted every four years.

(13) Tarnminen

(i) Tarnminen (1977) reported part of a research project which was enquiring into the religious and ethical development of Finnish school children. The project aimed at displaying the students' attitudes towards religious education as a school subject, and the correlations of these attitudes to their own personality, to their upbringing at home and to previously received religious education. Over 1,500 pupils participated in the research, and a questionnaire was completed by parents of students in the first and fifth and ninth forms. The study was carried out in four different regions representing a city, a smaller town, and two rural communities. The report under review concerns what Tarnminen describes as a sub-study which was aimed at portraying students' basic questions of life, and how they occur at different levels at school. The interesting feature of this sub-study was the development and use of a projective measuring instrument making use of photographs specially developed for the study. (Two other


instruments were used, namely a list of thirty-five different experiences and a question asking the subject how often such experiences had occurred in his life, and a questionnaire regarding interest in religious education.)

(ii) The results described in the report refer to the responses of children at Grades III (age 9+) V (age 11+) VII (age 13+) and IX (age 15+) to the questions on the projective photograph measuring instrument. The most important observation was a general trend of decrease of interest in religion, belief in God, and prayer corresponding to increase in age. This was shown to exist both in statistics referring to the "religiousness" of the pupils, and in the answers which were concerned with religion derived from the projective photographs.

(iii) The content analysis of the answers given to the projective pictures included the analysis of 10,000 statements classified into one hundred and sixty-two categories. These categories were in turn classified into seven "problem-groups" which were described as:
- (a) speculation concerning the future, (b) fears, (c) speculation on the purpose of life, (d) problems between parents and children, (e) problems concerning society and the whole world, (f) religious problems, (g) the mystery of death. The main findings of the content analysis of the differences between the age groups, showed that children throughout the age-range tested were interested in religious questions but that the greatest number of religious questions were asked by third-formers, that is, by children aged nine years. By the age of thirteen questions on the meaning of life and the experience of loneliness were more frequent than before. Fifteen year olds indicated more problems connected with the future and "questions which generally are connected with an identity crisis were found to be more weighty, at this level, especially with girls. 184 Also prominent with this group were.

questions about the meaning of life, the experience of loneliness and problems relating to the question of the existence of God. The most common "world-wide problems, and even of all questions of life" was the problem of war, its absurdity, and the wish for peace.

(iv) Tarninen acknowledged the methodological limitations imposed by the use of a projective measuring instrument, but considered that it gave "a fairly good general view of the questions of life of children and young people at this age." He concluded that in general there did not appear to be any sharp distinctions between different ages, and that "many deep questions of life occupy the pupils' minds ever since the lowest forms." 185

(v) This is a valuable research report, both for its interesting methodology and for the insight which it provides into the considerable interest shown by Finnish school children in problems concerning the meaning of life, and in questions about religion.

(14) Elliott

Elliott (1965) examined the meaning of religious statements and discussed the implications of his analysis for religious education. 186 He suggested that many authors in religious education, (for example, H. E. Davies, R. Goldman and H. Loukes) make concrete proposals for improving the situation and that their recommendations merit the careful attention of the teacher of religion. However:

"... all of them are logically dependent on unestablished assumptions about the nature of religious knowledge."

Elliott's purpose is to elucidate the nature of religious knowledge and he raises the radical question of whether indeed religion can be taught at all?


"This is not an empirical problem, but a logical problem; it is a question of whether religion is the sort of thing that it is possible to teach."

Elliott's discussion proceeds along the lines of linguistic analysis and he argues that religious statements are significant (that is that the belief statements of religious discourse are meaningful) and also cognitively significant, and that, therefore, they count as "knowledge statements." Religious statements are characterised by those features by which distinctive forms of knowledge are differentiated. In particular, the unique and particular kind of personal experience by which explanatory religious statements are validated, is the experience of the numinous, what Elliott calls "experience of the spatio-temporal-and-more." Elliott argues that "what is distinctively religious is of educational value", that is, it satisfies the criteria which are implicit in the concept "education." Moreover, it is plain from Elliott's discussion that it is the cognitive aspects of the educational process with which he is most concerned. Perhaps his most useful chapter is his discussion of religious education.

"... to teach religious beliefs as a part of the distinctively religious form of knowledge is to involve students in investigating both what are the criteria relevant to discriminating between alternate religious beliefs and systems of them and how these criteria are applied in validating these beliefs. It is to get students to see the relation between evidence and conclusion in matters of religious explanation."188

Elliott argues that in order to teach religious knowledge successfully it is essential to provide sound classification and delimitation of the range of the numinous dimension of experience.

"Unless the teacher anchors his teaching firmly in religious experience and unless he brings his students to an awareness of what this is, religious "knowledge" must remain for them ... inert knowledge - bits

187. Elliott, op. cit., Chapter 7 "What counts as Religious Education?"
188. Ibid.
of purported information which may be learned for replication, but which can have no vital significance to students.白沙

Religious education, argues Elliott, is necessarily concerned with four areas:

(i) propagating religious beliefs.
(ii) presenting evidence in support of religious beliefs and classifying the criteria and procedures according to which religious statements are validated.
(iii) isolating in the experience of the students the peculiarly religious dimension of experience.
(iv) leading students to an appreciation of the irreducibly parabolic character of religious statements and to an awareness of the use of paradox in religious discourse.

Elliott's thesis is a valuable contribution to the debate on what should count as religious education. His emphasis is clearly on the side of the cognitive, but his analysis makes it clear that he sees the educational value of religious knowledge as a vehicle for making sense of the non-cognitive elements in the religious experience of the student.

The research reports reviewed in this section are relevant to the concerns of the present study. The review is clearly not intended as an exhaustive report of all recent research on the religious experience of young people.白沙

189. Elliott: op. cit.

190. C.f. the following research reports:
Pitts, Peter V.: "Drawing Pictures of God" Learning for Living, 16 (3) Spring 1977, pages 123 - 129.

Note: John McLean (Lancaster University) has made a study of "the affective, behavioural and cognitive aspects of attitude in secondary school children." The full report is not available, but preliminary results suggest conclusions similar to the findings of this research. (Letter: J. McLean to T. J. Mark dated 16th February, 1979.)
The work of Hyde and Francis, however, is of particular importance because their findings provide valuable and interesting points of comparison with the present research.

3. Aims in Religious Education with particular reference to the philosophy of education.

It was stated earlier that the new approach to religious education has been influenced by the philosophy of education. This point is now elaborated with specific reference to Hirst, Bruner, Goldman, Hyde, Loukes, Smart, Smith, Cox and Wilson. In referring to researchers whose work has already been described, care is taken to avoid repetition, and focus is placed on their philosophical approach rather than on their research results.

(1) Hirst

Educational philosophers have attempted in recent years to define in precise detail the many and various activities which are part of the educational process. For example, in the influential collection of essays edited by R. S. Peters191 eleven separate topics are discussed. In Tibble's "The Study of Education" Hirst suggests that although educational theory has made great strides in recent years "it still lacks a clear and precise concept of what the whole enterprise is about."192 Whilst some philosophers argue that educational theory is a unique discipline with its own particular boundaries, lines of enquiry and procedures of validation193 others take the view that educational theory is practical theory in the sense that it is a collection of many forms of knowledge finding a logical unity in a common relevance to educational concerns.194 This view of education has been generally accepted in British University Schools of Education where the study of education is approached through a study of the contributory disciplines of philosophy, history, psychology and sociology. Education is no longer thought of as an amalgam of vague generalisations about children and schools, but is subjected to rigorous analysis by


194. Hirst, op. cit., page 42 f.
educational philosophers who argue that aims and methods must be justified in terms which satisfy the contributory disciplines. Therefore, according to this model it is the particular forms of knowledge which contribute to religion (theology, philosophy, history, sociology, psychology, and literary criticism), together with other forms of knowledge relevant to educational practice, which must provide the justification for the principles used in the practice of religious education. Hirst states that religion cannot count as a form of knowledge "simply because we do not know whether there are or are not valid objective tests for any strictly religious claims." Hirst makes it clear, however, that in his view there is a place for religious studies being taught in maintained schools, in the sense of "teaching about religion." Moreover, "In this area, as in any other, teaching about something is concerned with pupils understanding and imaginatively getting inside what it is they are asked to consider." 195

(2) Bruner
A somewhat different viewpoint is put forward by Jerome Bruner who argues that educational theory is a political theory in the sense that it derives from consensus concerning the distribution of power within society - who shall be educated and to fulfil what roles? His view of the educational process, however, is in harmony with the Hirst model and is of particular importance for the choice of methods and materials used in the classroom. Bruner argues that the educational process is one in which explanatory models of reality are constructed for the ordering of experience and in which "the most powerful ways of knowing" are converted into forms which are within the grasp of young learners at their various stages of intellectual development. 196 On this view the distinctive forms of knowledge peculiar to religion can be converted into a simpler form for use in the classroom and which are both within the grasp of young children and yet provide insight into the full depth of

religious thinking. It is not clear, however, whether this idea is entirely applicable to religious knowledge. The evidence of Goldman, based on the insights of Piaget, points towards the mental age of thirteen plus as being the critical age at which mature religious thinking begins to operate. Children whose thinking is predominantly concretistic, for example, would (on Goldman's view) be unable to appreciate "the full depth" of religious thinking. The precise differences between a Piagetian and a Brunerian approach to religious education have yet to be enumerated.197

(3) Goldman

Goldman's discussion of thinking applied to religion is much influenced by the research of Jean Piaget.198 However, he clearly accepts the possibility of some aspects of religious thought being understood by children before the stage of abstract-propositional thinking has emerged. Goldman states that the "raw material of thinking is sensation which is selected and then perceptualised."199 He observes that religion and life are interwoven in the early years of childhood and that religious thinking is dependent upon the original experience (of the child) upon which the religious analogy or metaphor is based. For an understanding of religious concepts verbal association and verbal interpretation are crucially important. He argues that certain religious concepts which are analogous to children's experience can be explained to them and understood by them. He cites the concept of the fatherhood of God, analogous to the child's experience of human fatherhood, as an example. In contrast to the view of Bruner, noted above, Goldman believes that religious insight, in the sense of the successful handling of various religious concepts in relation to one another, is dependent upon the development of a mental age of about thirteen plus. In describing Goldman's research it was

197. Note: Bruner exhorts psychologists to carry out the "pedagogical task" of converting forms of knowledge into simpler forms for use in the education of children. The conversion of religious forms of knowing into simpler forms has yet to be undertaken.


199. Ibid. page 11 f.
noted that he accepted Harms' (1944) view of three stages of religious development, according to which, many of children's early religious ideas are confused by the illogicalities and crude anthropomorphisms of intuitive thinking, or are limited by the concrete egocentrism which precedes the development of abstract religious thinking. It is clear that Goldman's work is fully in accord with recent approaches to the philosophy of education; he is attempting to work out principles of educational practice derived from the insights gained from his psychological research. 200

(4) Hyde and Loukes

Hyde's (1965) research suggested that "the problem of religious education" is that the growth of a critical attitude in adolescence, conditioned by a materialistic society, inhibits the growth of a true religious attitude and the maturation of religious beliefs. Hyde states unequivocally that the fundamental factor in the religious attitude, and in the education of attitudes, must be worship. "The ultimate question is not only about a child's idea of God, but also about his response to God." 201

Loukes (1961 and 1965) sees the task of religious education in the Secondary School as an examination of religious concepts directed towards the shedding of infantile forms and the acceptance of adult ones. Such an education would assist pupils in a personal search for ultimate values. He states the crux of the problem of religious education as the problem with which the contemporary theological debate is concerned; How can we talk about God in natural or secular terms? 202 He believes that the subject-matter of religious education is found:

"... in the areas in which children may meet God for themselves, in the dreams men have had of the possibilities before the race, in the lives of the men and women whose lives give witness to the..."

200. Note: The logical difficulty of making assertions about what ought to happen on the grounds of what is the case, has already been noted in Cox's assessment of Goldman's work. c.f. Part One, Chapter IV, 2 (1).


dreams. The child's wonder is a cosmic wonder, and requires myth for its evocation and expression: the dream of human achievement is, at its centre, an ultimate dream, and is shot through with perfection. 203

"Both religious and moral education lead back to the same centre, the meaning of love: the experience of it, the analysis of it, and the nature and extent of our commitment to it." 204

These brief quotations from Loukes (1965) illustrate his view that religious education should contain a strong affective element. The cognitive basis of religious education is not denied, but like Hyde, he stresses the ideas of response, and commitment, as being of fundamental importance, and on the model of Bruner's theory this emphasis on the affective nature of religious insight, needs to be justified by a reference to the internal logic of the discipline of religion. Such an attempt has been made by Ninian Smart and is discussed below. Some educationists, however, would be unhappy about the indoctrinatory tone of the approaches advocated by Loukes and Hyde. Loukes' reference to "the nature and extent of our commitment" to the meaning of love fails to make clear the distinction which needs to be made between children gaining religious insight from the observation of people's religious commitments, and the completely different kind of religious insight which children may gain from their own religious commitments. It is desirable to invite children to observe what religious commitments people have; but it is doubtful on the grounds of indoctrination, whether one should encourage them to make their own religious commitments. An examination of the grounds on which religious commitment 205 may reasonably be made is surely the task of religious

204. Ibid. page 110
205. Note: Of course a different use of the word is when one says that one is committed to a subject in the sense of being committed to physics, or to algebra. It is clear that Loukes is not using the word "committed" in this sense. See also Wilson J. (1971) Education in Religion and the Emotions - page 177 f.
education. To suggest that religious education should encourage children to respond to God (Hyde) or to lead them to discover God (Loukes) may also indeed be a legitimate task of religious education, in which case it needs to be justified (on Hirst's model of educational theory) on practical grounds. The considerable problem of such justification is succinctly stated by J. P. White (1967) in his essay on Indoctrination.

(5) Ninian Smart

Ninian Smart (1968) attempts to illustrate "the inner logic of theological and religious studies." He argues that a narrowly Biblical conception of theology, or any conception which treats theology as a closed system is inadequate. An open theology would be one which introduced the sympathetic appreciation of positions and faiths other than its own. Religious education should be teaching how rather than teaching that. Religion, Smart argues, has six dimensions - the doctrinal, mythological, ethical, ritual, experiential and social. He describes the first three as "verging towards the parahistorical" and the remaining three as "verging towards the historical." All these dimensions provide the basis of the content of religious education. On the Hirstian model to which reference has been made, Smart's analysis maps out the area of knowledge appropriate to the discipline of religious studies, on the basis of which a theory of religious education could be justified. He also appears to accept Bruner's theory, for he stresses as "vitaly important" the concept of education as a unity with the pattern and modes of approach differing according to age levels.

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207. Hyde, op. cit.,
208. Loukes, op. cit., page 110.
211. Ibid., page 90.
212. Ibid., page 96 f.
His discussion of the problem of indoctrination is valuable. Like Loukes, he deprecates the heavy bias of most agreed syllabuses towards Biblical Knowledge. Also, like Loukes, he believes that religious education should "transcend the informative." Smart identifies two ways in which this transcendence occurs. The first is "by arousing faith - by arousing love of the Being whom Christian teaching is about." He recognises the difficulty regarding indoctrination which is inherent in this view. The second way is the provision of a sensitive induction into religious studies "not with the aim of evangelising but with the aim of creating certain capacities to understand and think about religion." Smart argues that this second method overcomes the difficulty of indoctrination provided that the sensitive induction also includes an open appreciation of possible alternative viewpoints. He acknowledges that a committed teacher cannot fail to show his commitment, but argues that the test of one who is teaching reasonably (as opposed to indoctrinating) is "openness, not what his commitments are." Smart thus emphasises the concept of openness as being the central factor in religious education demanded by "the inner logic of the subject," and safeguarding it from the charge of indoctrination.

(6) J. W. D. Smith

"A prophetic and new approach to the theory of religious education," is made by J. W. D. Smith in his Religious Education in a Secular Setting. He suggests a view of religious education which evokes "the dimension of mystery in human experience" and he bases this on the philosophical writings of Martin Heidegger. He expounds Heidegger's categories of "possibility", "thrownness", "fallenness" "authentic and inauthentic living" and argues that Heidegger's most important contribution to the contemporary problems of religious education lies in his recognition of the signi-

213. Smart, 1969, op. cit., page 102
214. Ibid. page 95.
215. Ibid. page 98.
218. Ibid. Chapter 5.
ificance of death for our understanding of human existence. Smith believes that Heidegger's analysis provides a basis for religious education in state schools which could be acceptable to Christians and humanists alike. It is clear that Smith understands the "dimension of mystery" as "the religious dimension" and he argues that it cannot be ignored in any serious discussion of personal development. He supports this thesis with reference to the work of Freud, Jung and Erikson, and to Violet Hodge's "Children in Search of Meaning." Smith's suggestions for "a new secondary curriculum" are less original and show an emphasis on Biblical material. His view that "our main concern for all our pupils is that they should gain deepening insight into the Christian meaning of love" (identical with the view of Loukes already discussed) is different from his basic thesis. The fundamental and original argument of the book, however, is that religious education should provide help in recognising that true human life begins in the awareness of death, and that death symbolises "the mystery, and the menace, of conscious finite existence." Smith does not draw out the implications of his argument for curriculum development, but it is possible that his existentialist approach may point the way forward to a general philosophy of education in which "the religious dimension" would form an integral part.

219. Smith, 1969, op. cit., page 51, c.f. Hull, J. M. 1970, op. cit., - "What answer does J. V. D. Smith offer to the problem of the two Heideggers?" and "The early Heidegger teaches that authentic existence can be attained by the determined self without outside aid. The later Heidegger is inclined to look, for the possibility of authentic existence, to the gracious power of being itself. Religious education based on the earlier work would tend to be humanistic, but if based on the later work would tend to include some emphasis on trustful response to the divine grace."


221. S.C.N. Press, 1965


223. Ibid., page 97.

224. Note: An independent but not dissimilar view has been put forward by Harold Loukes, c.f. "Death of a Subject," op. cit., Times Educational Supplement 2760, 12 April 1968.
Edwin Cox (1966) argues for an open-ended religious education and favours a pragmatic approach which might aim at making children capable of intelligent religious response by the time they leave school. He suggests that it may not be possible to have one aim for all stages of religious education. Satisfactory aims "must seem adequate to the teacher, worth-while to the children, and useful to the community." He critically examines three aims which are often postulated. (i) Firstly, he notes that the common aim of teaching the Bible is usually justified on one of two theories: either its cultural and literary value; or its general beneficial effect upon the faith and moral character of the pupil. Both these theories are now considerably devalued, and therefore, Cox argues that although Bible study should form a part of religious education "it is insufficient by itself as an aim." (ii) Secondly, moral education and religious education are very closely associated and "difficult to separate": but Cox insists that when moral training is placed as the first objective, and when religious ideas are regarded as a means for attaining it, the result is likely to be shallow and unsatisfactory. (iii) Thirdly, "the idea that the purpose of religious education in schools is intended to convert children to the Christian faith is widespread" and Cox argues strongly, on the grounds of indoctrination, against the legitimacy of this view. In contrast to these aims, Cox shows that an open-ended religious education has much to commend it. It aims to give children "a religious view" of life, and Cox is careful to define what he means by this phrase.

"By religious view of life is meant these attitudes; that man is one part of the whole complex of creation, the most highly developed and sensitive part, but none the less bound in a close relationship with the other parts which are to be respected and not ruthlessly exploited for the pleasure either of the individual [omitted]."

or the species; that the individual has to live among his fellows, who have to be accorded the same consideration that he gives himself; that the whole has some overall purpose which has to be sought, even if it can only be partially understood; that apprehension of that purpose will give a clue to practical decisions and lead to the adoption of a moral code; and that aesthetic experience, as well as rational thought, can give awareness of that purpose, so that natural beauty and the arts are to be revered and cultivated as one of the roads to truth. 227

More specifically, religious education will aim to articulate the ultimate questions which the cultivation of these attitudes is likely to raise. 228 Such an aim, however, can be attempted only in the higher forms of the secondary school, and in the preceding stages children should be introduced to religious ideas which are relevant to them at each stage of their development. 229 Cox emphasises that a statement of the teacher's own religious commitments is consistent with this aim, provided that such a statement is recognised and put forward as one amongst other possible viewpoints. By stressing openness, and objectivity, and by defining ultimate questions in the most general terms, the objection of indoctrinatory aims noted in other writers, is carefully avoided.

Criticism of Cox's view is made by John Wilson 230 who considers ultimate questions to be linguistically problematic. 231 He finds Cox's general aims "too imprecise." It is possible that Smith, in drawing attention to Wilson's criticisms, accepts them too readily, and himself fails to distinguish between the concepts of confusion and generality - for a

227. Cox, op. cit., pages 66 - 67
228. Ibid. page 67.
229. Ibid. page 69.
description of aims in general terms does not necessarily imply that they are confused. \(^{232}\) Whilst defining the religious perspective in somewhat general terms Cox insists that a "strategy of religious education" must provide a structured curriculum which takes precise account of the stages of children's religious development. This emphasis is based on the insights derived from the work of Piaget and Goldman. With reference to the discipline of the subject, and on Hirst's view of educational theory, Cox is emphatic that contemporary theological uncertainty must also be reflected in the content of the curriculum. It is the recognition that religious education must take into account both these factors which makes Cox's viewpoint important.

(8) **Wilson**

John Wilson finds a close connection between religious education and the education of the emotions. \(^{233}\) Instead of teaching children facts about religion, or persuading them into religion, he suggests a third choice, that of educating them in religion - "that is, of helping them to become more reasonable in respect of those emotions and attitudes that are central to religion, so that they may more reasonably make or not make their own religious commitments, and assess those of other people." \(^{234}\) He describes religious education as a topic area (similar to other topics such as sex, money, war or the family) placed within the wider context of moral education - which he defines as the education of behaviour and the emotions. \(^{235}\) Wilson argues that emotions must be distinguished from sensations, perceptions, moods and attitudes, and he observes that emotions characteristically have "targets or objects, and the implication of a belief." He, therefore, deprecates too great an emphasis on intellectual conceptualisation and advocates a religious education which would develop the moral components GIG, HF, KRAT,

\(^{232}\) Smith, 1969, op. cit., page 16.


\(^{234}\) Ibid., page 161.

\(^{235}\) Ibid., page 164.
and PHIL. In identifying religious education as a topic area, Wilson believes that it forms an excellent arena in which the educator can work. "Nearly all the important emotions - love, hate, fear, guilt, anger etc. - find a place in most religions: indeed one might almost say that a religion can be regarded from one viewpoint as an institutionalization of these emotions." More particularly, Wilson considers that there are two areas which religious education seems well-adapted to cover - the area of the specifically religious emotions and attitudes (awe and worship) and the area which considers the problems of "finding a meaning to life", "making sense of the world" etc.

It is clear from his discussion of the implications of his view for religious education curriculum, methods and content, that Wilson considers his approach to be a radical one. He suggests a syllabus which would organise the contents and methods of education round such concepts as worship, awe, guilt, forgiveness etc. - "so as to give children a genuinely educational grasp (both intellectual and emotional) of the stuff of religion." Such a syllabus would direct the attention of the pupil not only towards objects of emotion as found in religion - but also towards his own emotions, with the object of helping him to understand and control them. Wilson admits that such an education would be more analogous to certain types of psycho-therapy than to subject-teaching.

The importance of Wilson's argument for religious education in schools is two-fold. Firstly, although he is in general sympathy with the conclusions of Edwin Cox, for example, Wilson's approach is radically different. Whereas Cox and Smart emphasise the cognitive aspects of religious education, Wilson does not find "I.Q., intellectual maturity and sophistication" to be matters of crucial importance.

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236. Note: For a definition of these coined terms - see "Second sketch of a taxonomy" - Education in Religion and the Emotions, op. cit., page 140 f.
237. Ibid. page 164.
238. Ibid. page 166 f.
"The metaphysical or doctrinal superstructure is, in one real sense, unimportant in itself; it is the kind of emotions to which it bears witness that we have to detect and educate." Secondly, Wilson's argument underlines the need for schools to recognise that religious education requires not only the teaching of the subject on the curriculum, but also the provision of personal counselling and pastoral care.

4. Summary and Conclusion

This chapter has described the changed climate for teaching religion in schools, with reference to educational reports and to recent developments in the use of the agreed syllabus. Several major research projects concerned with the religious attitudes, behaviour and thinking of adolescents have been reviewed, and a descriptive account of their differing research aims, methods and conclusions has been given. Some research has been concerned largely with religious cognitive development, for example, the work of Goldman, Cox, Peatling and Murphy. Other research has taken a broader perspective and has been concerned with the inter-relatedness of affective, cognitive and behavioural elements in religious development, for example, the work of Loukes, Alves, Hyde, Francis and Gates. The influence of educational philosophy for deciding what may count as religious education, and the need to justify method and content in religious teaching in schools on educational grounds has been discussed, and the influence of Hirst, Smart and Wilson has been indicated.

The present research adopts a broad approach to the study of religious development amongst adolescents. It includes a strict empirical design for the measurement of religious attitude, behaviour and cognition, using a series of group tests: it also includes a more general report derived from a series of interviews with individual children. The educational implications of the results are discussed. The work reviewed in this chapter provides the background from which the present research originated, and also it provides the context in which the results are to be interpreted.

PART TWO

CONSTRUCTION OF TEST INSTRUMENTS: THE DEVELOPMENT OF TWO ATTITUDE SCALES, A BEHAVIOURAL SCALE, A RELIGIOUS THINKING TEST, AND MATERIAL FOR FOLLOW-UP INTERVIEWS. THE SELECTION OF FURTHER TEST INSTRUMENTS FOR USE IN THE MAIN EXPERIMENT
CHAPTER V
CONSTRUCTION OF TWO ATTITUDE SCALES
FOR USE AMONGST SECONDARY SCHOOL CHILDREN

1. Introduction.
   It was indicated in Part One, Chapter I, that one of the aims of this research was to ascertain the extent to which a deterioration in attitude to religion described by Hyde in 1965 still obtained in the 1970s. Use will be made in this research of Hyde's attitude to religion questionnaires. However, it was also pointed out in Chapter I that Hyde defines religion narrowly in terms of Church, God and the Bible and that attitude to religion in Hyde's research is equivalent to attitude to institutionalized Christianity. It was decided, therefore, to adopt a wider, inclusive definition of religion and to study children's attitudes to people and attitudes to existential questions such as those of concern with suffering, loneliness and death. Using this wider definition of religion, two "attitude to people" questionnaires were constructed. This chapter describes in detail the initial collection of a pool of statements from children in a comprehensive school, and documents the development of the two attitude questionnaires using the method of the scale-discrimination technique.

   After an extensive review of the literature concerning the theory of attitude scale construction Hyde decided to follow a method which made use of elements taken from the techniques developed by Thurstone, Likert and Guttman and as described by Edwards. Hyde argued that "it would seem to be correct to speak of a general religious attitude, as well as a number of specific religious attitudes. The specific attitudes are those that are measured, but are closely related to the fundamental general attitude or sentiment. That attitude scales measure specific attitudes becomes clear during the process of constructing them."

3. Hyde, op. cit., page 278.
Hyde’s method was similar to that subsequently advocated by Edwards, viz.: the construction of attitude scales in the first place as equal-interval scales, using the methods of Thurstone, and then after studying the characteristic properties of the individual statements, incorporating suitable items from them into a multi-response scale as first used by Likert. Finally, the statements were subjected to scalogram analysis using Guttman's technique. The stages of the development of the attitude scales, as described by Hyde, are summarized below:

1. At all stages of construction the question of the use of the scales in Secondary Modern schools was considered, and the nature of the response of the less able children envisaged. In the earlier stages of the experimental work, the possibility that children might tend to give the response they thought to be expected from them to a multi-choice scale, was regarded as a disadvantage. However, subsequent study demonstrated that with suitable test conditions - principally the guarantee of anonymity to the subjects, this event was not realised.

2. Several hundred possible attitude statements were gathered from miscellaneous sources. From this collection 166 likely items were selected. These were sorted by 26 judges into eleven groups. "Only one sorting, that of a student, appeared to be so disproportionate as to be rejected." Scale values and the mean deviations for every item were then calculated according to the sorting distributions awarded. Most statements showed a Mean Deviation of less than 1.00 and of the 153 items which were retained for preliminary use, only five showed a Mean Deviation of more than 1.5 and these were retained only because of "their intrinsic verbal interest."

3. Hyde next conducted what he describes as the preliminary Pilot Test. It was decided to undertake this stage of construction in two phases, the first being intended to offer some immediate simplification of a scale of 153 items, the second to examine in greater detail the characteristics of each item retained from the first test. A simple questionnaire on religious behaviour was also prepared.

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"in order to secure from these two tests a body of information regarding the religious habits of the children tested, so that by comparing overt habit with professed attitudes ..... indications would be given as to the most likely points at which significant variations could be detected." It was further anticipated that it would be necessary to produce two separate attitude scales (attitude to religion, and attitude to the church), and "for ease of working" five separate scales were constructed from the 153 statements.

(4) The first test was administered to 152 boys in the "B" stream in a Secondary Grammar School, in forms 1, 2, 3, 4 and Lower VI. Almost all the boys completed the test without difficulty, many in less than thirty minutes. In scales 1 and 3 items were placed in "Scale Order" while in the remaining scales items were spaced in random order. Subjects were required to respond dichotomously - i.e., with either Agree or Disagree to each item.

Following the test, an analysis was made of both positive and negative responses to each item. Items to which an unusually large number of children had made no response were suspect, as were items to which a quite disproportionate response had been secured. Suspect items which were capable of verbal misunderstanding by the children, possible ambiguity to children, apparent inability to be comprehended by children were rejected. Split-half correlation coefficients were calculated, using odd and even numbers separately. The skewness and "kurtosis" of the distribution curves of the attitude scores were also examined.

The results were considered to be reasonably satisfactory for a preliminary test; a significant drop in attitude was observed between the lower and higher forms, and this appeared to occur mainly between the 2nd and 3rd forms. The test used for significance of differences was the CHI SQUARE test, since the form of the results made its application simple.

5. Note: - 91 items were retained and subjected to analysis.
(5) The 91 items retained from the preliminary test were now used as a pilot test and were administered to 499 boys and girls in two comprehensive schools. It was decided to re-examine each item on the basis of its operating characteristic. The tests were scored, and the results sorted into attitude groups from 0.0 to 10.0 in 0.5 intervals. Response totals to each item in each attitude interval were secured, and the probability of endorsement calculated as the ratio between the number endorsing the item and the total number of respondents in each particular attitude group. Finally the curves were plotted, the S.D. and the arithmetic mean of the actual group scores having been already calculated for each item in terms of this break-down into attitude groups.

(6) It was important to see that the test would be valid with less able children and to carry out the test "under the least propitious circumstances." It was administered, therefore, as a second pilot test to 139 boys in four consecutive "B" stream forms. The primary object of the second pilot test, however, was to secure greater levels of discrimination from the items to be selected, using Edwards and Kilpatrick's Scale-Discrimination technique. In this second test each item was assigned 5 response categories, from strongly agree through to strongly disagree. The responses were then scored in terms of the Likert method of summated ratings, with weights 0 to 4 being awarded to the 5 response categories, so that the largest weight was always given to the most favourable response. The second pilot test was administered in the form of two scales, namely, attitude to Religion and attitude to the Church. In the scoring procedure the total scores of each subject were found on both scales tested, separately. Each statement was then subjected to a further item analysis by calculating the discriminating power of the statements by using the top 33% and the bottom 33% groups. The phi coefficient for these dichotomised responses was then calculated. The results indicated that only 4 statements in Scale I gave a coefficient of less than .5, and these were later rejected.

6. Note:- Edwards and Kilpatrick suggested 27% top and 27% bottom
All statements in Scale II gave a higher coefficient.

(7) A final question remained. To what extent were the scales concerned with the same universe of attitudes? It was decided to use the technique of Scalogram Analysis, as developed by Guttman, with the remaining statements. Six scales were isolated by this method, comprising 34 items between them, with the coefficients of reproducibility ranging from .885 and .904. Finally item analysis was made for test reliability. The two scales were arranged in scalogram order in consecutive sub-scales for each of the two major scales; scores were recalculated for odd and even items in the two scales. Correlations were also calculated between the scores on the sub-scales and between the scores on the two major scales, and also intercorrelations for all the scales were computed. Finally, the mean score for each of the 4 age-groups was calculated for each of the six scales.

(8) In the above summary of Hyde's procedure of attitude scale construction, the following techniques have been indicated:- Thurstone (c.f. Section 2 above), Likert (c.f. Section 6), and Guttman (Section 7).

3. Proposed Method for this Research.

(1) The advantages of the Scale Discrimination Technique which Hyde used are recognised, and there seems no reason why it should not be adopted for this research.8

(2) Additional attitude statements need to be generated and scales constructed to be used in conjunction with those developed by Hyde. It will be valuable, although not essential to replicate his methods as far as possible. The important aim, however, is to develop reliable instruments.

(3) Certain modifications to Hyde's procedures are suggested for the present research:

(i) Selection of Statements: Hyde's procedure began with a collection of possible attitude statements from

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7. Note:- There is a discrepancy here between Hyde's thesis and his published book. The thesis records the range between .85 and .90; the book states between .88 and .90.

miscellaneous sources which resulted eventually in the construction (through scalogram analysis) of the two major scales and the six sub-scales. In the present research, it was argued that the content of the statements be determined by the researcher, in the light of the discussion already made about the aim of testing a non-conventional view of religion. However, an alternative method was for the researcher to invite statements on a non-conventional view of religion - i.e. the researcher indicated the content area, and invited the children to generate statements.

(ii) Judges: In using the Thurstone method of equal-appearing intervals Hyde used 26 judges. Following Edwards\(^9\) it was decided that 50 judges be used in this research, and that they should preferably be adults.\(^{10}\)

(iii) The LIKERT procedure: In dichotomising the High Score/Low Score groups Likert suggested the top 27\% and the bottom 27\%. Hyde, however, used 33\% Some authors deprecate the throwing away of data, and the question of an alternative method for calculating discrimination indices needed to be considered.

4. Collection of Statements from Children:

(1) It was decided to make use of the scale discrimination technique developed by Edwards and Kilpatrick.\(^{11}\) The first task is to collect a large number of attitude statements relating to the psychological object of interest. In order that the statements should be related to the language abilities of the eleven-plus to fourteen-plus age range it was decided to collect statements from groups of children in a comprehensive school. It was assumed that this procedure would greatly add to the quality of the individual items and would ensure that the language and the subject matter was relevant to the thought-worlds of the children.

(2) A visit was made to W Comprehensive School, Scunthorpe, on 4.12.74 in order to collect statements suitable for inclusion in the scale. Arrangements were made to meet

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9. Edwards, 1957, op.cit. page 95
11. Note: A discussion of the value of this method is made below.
four groups of children, two from the first form and two from the fourth form. The first-form classes were of mixed ability excluding remedial children, and the fourth-form classes were streamed. The first of the fourth-form groups was decidedly less able than the second group. The method used to elicit material was the same in all four groups with the exception that in the case of the final group the activity was confined to writing. When the researcher was introduced to the children no mention was made of religion. In each case the teacher made the following introduction:—

"Mr. Mark is doing some work at the University. He needs your help and I am sure you are going to do all you can to help him." A double-period, approximately one hour, was assigned for each group.

(3) The researcher explained that the purpose of his visit was to collect attitudes of teenagers to various topics of interest. With one exception (a girl in the fourth form who was giggly and silly) all the children seemed keen to cooperate and tackled their tasks enthusiastically. A worksheet was distributed quickly to the pupils and they then listened to two songs which were pre-recorded on tape, namely, "The Streets of London" and "What is the meaning of life, my friend?" 12 The worksheet was self-explanatory, but the instructions were read to the class and an oral explanation given in order that every child should be quite certain what he was expected to do.

(4) The worksheet contained three tasks, 13 namely an essay-type question on the theme of the songs, an "opinionnaire" designed to elicit direct statements of attitude towards twenty items listed in random order 14 and a third short-essay on the subject of "getting on with people." 15

12. c.f. Appendix 1. - "Stimulus material for generating a pool of statements for the construction of two attitude scales."

13. This method of presenting a stimulus to the children was suggested by Professor Sutherland.

14. The statements were invited on three major areas, namely, (a) existential themes of loneliness, suffering, the meaning of life etc. (b) inter-personal relations, (c) matters of social concern.

15. c.f. Appendix 2 - Instruction Sheet used at W Comprehensive School on 4.12.74.
(5) In the case of the first three groups of children the written work was followed by a discussion which was recorded on tape. It was hoped that this discussion procedure would obviate the difficulties which some children might experience in writing. It was difficult to evaluate the usefulness of the discussion sessions. The children enjoyed the experience and contributed considerably, but compared with the quality of the statements generated in the written work, the general standard and the number of statements suitable for future use proved disappointing.

(6) The composition of the groups was as follows:

Group 1: 22 children of lower-ability Year IV Age 14+
Group 2: 30 children of mixed-ability Year I Age 11+
Group 3: 30 children of mixed-ability Year I Age 11+
Group 4: 27 children of higher-ability Year IV Age 14+

(7) The statements were extracted from the taped discussions, and from the written work presented in response to the work sheets. Of the 109 children 93 selected the essay topic of loneliness and only 14 chose "the meaning of life." Two children did not answer the essay question. Several statements were derived from the essays but most of the material suitable for our purposes was derived from the second task on the work-sheet, namely their straightforward opinions on various topics.

(8) The statements given by the children are given in Appendix 3. Many statements were repeated by various children, in which case only one example is included in the list. Very little editing has been necessary, and the list has been compiled bearing in mind the criteria suggested by Edwards. The statements are evidence of the positive response given by the pupils to the stimulus material. It is clear that they have reflected carefully on the issues under discussion; many of the statements are remarkable for their insight and sensitivity. The pool of statements provided a most useful starting point for the construction of the questionnaires.

16. c.f. Appendix 3, 104 Statements provided by pupils from W Comprehensive School for the construction of attitude scales.

5. The Scale-Discrimination Technique:

(1) Edwards and Kilpatrick (1948) devised a method for constructing attitude scales which they called the scale-discrimination technique. 18 "In developing their technique, they proceeded on the assumption that a combination of scaling and item analysis procedures would enable one to select a relatively small set of attitude statements from a larger number of available statements such that the set selected would also have a good chance of meeting the requirements of a Guttman scale." 19

(2) The method of the scale-discrimination technique proceeds through the following stages:

(i) Scale and Q values are obtained from a number of statements following "the method of equal-appearing intervals" as first developed by Thurstone and Chave. 20

(ii) Approximately 50% of the statements are eliminated. These are the statements that show the greatest degree of spread of judgements on the psychological continuum.

(iii) The remaining 50% of the statements are prepared in the form of the "method of summated ratings" as devised by Likert. 21 These statements are administered to a new group of 200-300 subjects who are required to use six-point response categories (from "strongly-agree" through to "strongly-disagree") to indicate their own agreement/disagreement with each of the statements. Responses are scored in terms of the method of summated ratings. To select items for the final scale a criterion of internal consistency is used. Edwards and Kilpatrick used criterion groups of the upper and lower 27% of the subjects.

(iv) Response categories of statements are dichotomized and the discriminating power of each statement is calculated. Edwards and Kilpatrick used the phi coefficient for this calculation.22

(v) Statements are plotted in a new two-way table in which the Thurstone scale values are on the horizontal axis and the values of the phi coefficient on the vertical axis. Statements with the highest phi coefficients for each of the scale intervals are then selected for the final attitude scale.

(vi) The selected statements are arranged in rank order of their Thurstone scale values, from most to least favourable, and two forms of an attitude scale are devised by assigning statements with alternate scale values to the two forms.

(vii) The two forms of scale are given to a new group of subjects. Subjects are asked to register their agreement or disagreement with each statement in terms of the original six response categories. Scores on these categories are obtained by using the dichotomized response categories with weights 0 and 1 established previously (see above, paragraph iv).

(viii) Scalogram analysis is applied to each of two sets of statements and the coefficients of reproducibility are calculated.23

(3) Criticisms have been made against Thurstone's technique. For example, Murphy and Likert argue that the Thurstone procedure makes a number of statistical assumptions which cannot be verified. Moreover, the method is extremely laborious. Murphy and Likert believe that the method of summated ratings is simpler than the Thurstone procedure, gives results which are comparable to those obtained by it, does not depend on a judging group

23. c.f. Guttman L: "A basis for scaling qualitative data", Amer. sociol. Rev., 1944, 9, 139-150
and yields reliabilities "as high as those obtained by other techniques." These claims, however, have been strongly disputed. Using different approaches to the problem several studies cast doubt upon the objection of Murphy and Likert that the attitudes of the judging group may influence the scale values. Researchers who have used the Likert method of summated ratings tend to agree that it is simpler than the method of equal appearing intervals. However, if in the interests of research the intention is to refine a measuring instrument, the fact that it takes more time and effort is not a major consideration.

(4) Edwards and Kenney review the evidence of the reliability of scales constructed by the method of equal-appearing intervals and by the method of summated ratings. They conclude:

"According to the evidence at hand, there is no longer any reason to doubt that scales constructed by the method of summated ratings and containing fewer items will yield reliability coefficients as high or higher than those obtained with scales constructed by the Thurstone method."

Edwards and Kenney also made a comparative study of the two methods by using the same group of subjects for the construction of the two scales. The reliability coefficients obtained showed slightly higher values for the Likert scale than for the two forms of the Thurstone scales which were constructed. The evidence of this study indicated that "scores obtained from the two differently constructed scales are comparable."

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27. Edwards & Kenney, op. cit., page 252

28. Ibid. page 255.
(5) Shaw and Wright\textsuperscript{29} note that the scale discrimination technique does not appear to have been applied very extensively. They observe that since the Thurstone procedure requires nonmonotone items\textsuperscript{30} whereas the Likert and Guttman techniques require monotone items\textsuperscript{31} "it is clear that the underlying assumptions of one or more of the methods is being violated."

(6) Despite these criticisms the clear advantages claimed for their technique by Edwards and Kilpatrick must be noted.\textsuperscript{32} The method is a synthesis of the methods of scale construction devised by Thurstone, Likert and Guttman but contains "certain advantages which are not present in any of these methods considered separately." Firstly, the Thurstone procedure fails to eliminate the least discriminating items in a large sample. "The unsolved problem in the Thurstone procedure is to select from within each scale interval the most discriminating items." By combining the Likert method of discrimination with the Thurstone procedure, this difficulty is overcome. Secondly, the scale-discrimination technique provides an objective basis for the selection of items which are then tested for scalability. Edwards and Kilpatrick argue that the scale-discrimination method "offers greater assurance of scalability than any intuitive technique such as applied by Guttman." Moreover, the set of items selected by the scale-discrimination method provides a wider range of content than do the intuitive Guttman items.

(7) It is clear from the above discussion that unequivocal support for the scale-discrimination method cannot be claimed. In our view, however, the advantages outweigh the disadvantages. Moreover, the procedure


\textsuperscript{30} i.e. items that will be disagreed with by persons both below and above the position on the latent attitude variable reflected by the item. (Shaw \& Wright, page 21. op. cit.)

\textsuperscript{31} i.e. items having the characteristic that the more favourable the individual's attitude toward the attitude object, the higher his expected score for the item.

\textsuperscript{32} Edwards, 1957, op. cit., page 216 f.
adopted by Hyde was basically the same, and since one of the objectives of this research is to draw comparisons with Hyde's findings the choice of the scale-discrimination technique for devising attitude scales in this present research is well justified.

6. Administration of Scale-Discrimination Technique and the Construction of two Comparable Attitude Scales.

(1) Collection of Statements
Statements were collected and edited by the procedure already described. (Section 4 above).

(2) Sorting Procedure
(i) 50 volunteers at Doncaster College of Education acted as judges in sorting the 104 statements into 11 categories. The judges included 10 academic staff, 36 students in Year II, and 4 students in Year III.

(ii) The sorting took place during the period Monday 24th February to Friday 28th February, 1975. Judges worked in groups. Cardboard boxes and seed trays were labelled with the letters A to K, and were set out on individual tables in a lecture room. It was not possible to arrange for all the judges to be available at the same time because of individual time-table commitments. Moreover, the room space could accommodate a maximum of 8 judges at a time. In the event, judges worked in groups - the largest being 7 and the smallest being 3.

(iii) At each sorting, the judges were given: -
(a) an instruction sheet, 33 (b) a report form, 34
(c) a set of 11 boxes or trays, (d) a bundle of typed statements clipped together separately in random order.

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33. c.f. Appendix 4 - Attitude Scale Construction - first sorting procedure - instruction sheet given to judges.
34. c.f. Appendix 5 - Attitude Scale Construction - first sorting procedure - judges' report form.
(iv) Before the sorting began the judges were invited to read the instruction sheet. (See appendix). Following the Thurstone procedure precisely\(^{35}\) the three examples given on the instruction sheet were read out by the researcher, and it was stressed that the judges were not required to express their personal attitudes, but were to attempt to sort the statements as objectively as possible into eleven categories in accordance with the continuum criterion of Extreme insensitivity through Neutral, to Extreme sensitivity.

(v) Judges were given an opportunity to clarify any doubts about the sorting task, but very little comment was necessary once they had read through the instruction sheet. Few questions were asked, and indeed, most seemed anxious to start the task as soon as possible.

(vi) Most judges completed the sorting in 25 minutes. Silence was observed throughout. Most judges chose to remain standing for the exercise, but some sat down. After the completion of the sorting, each judge spent a further 15 minutes reporting his results on the form provided.

(3) Analysis of Results

(i) A frequency chart was plotted and the judges sorting procedure scrutinised. It was clear that a few statements had been misplaced. For example, Judge No. 7 had placed Statement 61 ("Old people should be killed off") into Box K - that is, into the category at the end of the continuum denoting extreme sensitivity. The final sorting for this item indicated that 43 judges had placed the statement in Box A (extreme insensitivity), 2 judges in Box B, and 2 judges in Box C. The Scale Value for this item was 1.08 with the interquartile range at 0.58. Clearly, this item was placed by mistake in the wrong end of the continuum. The other sorting judgements made by Judge No. 7 appeared to be less deviant, however, and the judge's report was,

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therefore, retained. No judge appeared to have misunderstood the exercise, and all 50 sortings were retained for analysis.

(ii) Following the suggestions given by Edwards (1957)\textsuperscript{36} scale and Q values were calculated. The use of a computer program was contemplated but rejected for lack of immediate facilities. An electric calculator was used, however, to assist in the calculations.

(iii) The list of statements showing the Scale and Q values obtained, is tabulated overleaf.
### TABLE I

**ATTITUDE SCALE CONSTRUCTION**

**THURSTONE PROCEDURE - SCALE AND "Q" VALUES**

*OBTAINED FOR 104 STATEMENTS*

(Details are tabulated in ascending order of "Q" values)

**MEDIAN = 2.65**

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<th>State -ment</th>
<th>&quot;Q&quot; value</th>
<th>Scale value</th>
<th>No.</th>
<th>State -ment</th>
<th>&quot;Q&quot; value</th>
<th>Scale value</th>
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<td>6.50</td>
<td>99.</td>
<td>18</td>
<td>3.82</td>
<td>6.70</td>
</tr>
<tr>
<td>48.</td>
<td>24</td>
<td>2.61</td>
<td>10.00</td>
<td>100.104</td>
<td>4.22</td>
<td>6.20</td>
<td></td>
</tr>
<tr>
<td>49.</td>
<td>15</td>
<td>2.62</td>
<td>6.75</td>
<td>101.104</td>
<td>4.42</td>
<td>8.13</td>
<td></td>
</tr>
<tr>
<td>50.</td>
<td>63</td>
<td>2.63</td>
<td>8.20</td>
<td>102.29</td>
<td>4.45</td>
<td>7.36</td>
<td></td>
</tr>
<tr>
<td>51.</td>
<td>99</td>
<td>2.63</td>
<td>1.50</td>
<td>103.97</td>
<td>5.14</td>
<td>5.64</td>
<td></td>
</tr>
<tr>
<td>52.</td>
<td>58</td>
<td>2.64</td>
<td>7.96</td>
<td>104.96</td>
<td>6.33</td>
<td>7.07</td>
<td></td>
</tr>
</tbody>
</table>
(4) Obtaining Summated-Rating Responses

(i) The "Q" values and Scale values obtained for the 104 statements have been given in Table I. The best 50% were retained for the construction of a questionnaire, namely, the 52 statements for which a "Q" value of less than 2.65 was obtained.

(ii) It was decided to include six response categories for each statement:

- Strongly Agree,
- Agree,
- Slightly Agree
- Slightly Disagree
- Disagree
- Strongly Disagree.

(iii) It was decided to score the responses of the subjects in terms of the method of summated ratings with weights of 1 through 6 being assigned to the six response categories. The direction of the weights for each statement was determined from the location of the statement on the Thurstone equal-appearing interval continuum. This provided a consistent increasing positive score on the increasing sensitivity axis. It was assumed that each statement could be classified as favourable or unfavourable towards the sensitivity axis. An examination of the 52 statements retained for the questionnaire showed Scale Values ranging from 1.04 to 10.88. Statements with a Scale Value of 5.12 and above were weighted with 1 through 6 for responses from "Strongly Disagree" to "Strongly Agree." For those statements with a Scale Value of less than 5.12 the direction of the weightings was reversed. The 52 Item Questionnaire is given as Appendix 6.

(iv) It was decided to administer the attitude scale of 52 statements to a sample of children in W Comprehensive School, Scunthorpe, including pupils in Forms I to IV and covering the whole range of ability. The scale was administered on Wednesday 23rd April 1975. The help of class teachers to administer the

37. c.f. Appendix 6 - The 52 Item Questionnaire.
scale was necessary in order to complete the operation in one day. Three classes from each of Year I to IV were selected by the school to fit conveniently into the school timetable. Simple instructions regarding the administration were handed to the teachers before they administered the scale; the researcher also met them beforehand to thank them for their help, to clarify any difficulties and to encourage them in their co-operation. Some children completed the scale in less than ten minutes, most within twenty minutes but some took thirty-five minutes. No difficulties in the administration were encountered apart from the occasional question about the meaning of a word to which the teachers gave clarification to the pupils concerned.

(v) The children's answer sheets were scrutinized and several were rejected on the grounds that several items had been omitted. (It is to be noted that one of the specific instructions to the teachers was to request them to check that the pupils had scored all the items before collecting in the papers). 354 scripts were retained for item analysis.

(vi) The following details were computed.
(a) For each of the six response categories for each of the 52 items:
   (i) Point-biserial correlation coefficient based on the internal criterion of the total score,
   (ii) the parameters $X_{50}$ and Beta,
   (iii) the measure of item difficulty.

(b) The Hoyt Reliability coefficient for the whole scale, based on the sum of the total scores. 39

(5) Computer Item Analysis - Summary of Results
(i) Sample: 354 pupils of W Comprehensive School, Scunthorpe. The children were selected by the school

38. c.f. Appendix 7 - Instructions to Teachers for Administering the 52 Item Questionnaire at W Comprehensive School on 23.4.75.

to ensure the minimum disruption to the timetable, but were representative of the total school population in Years I to IV. The sample included the following number of pupils for each year:

- Year I - 87 pupils
- Year II - 85 pupils
- Year III - 86 pupils
- Year IV - 96 pupils

Total: 354 pupils

(ii) Reliability of the Instrument. The Hoyt reliability coefficient computed on the basis of the total scores was $R = .65$. After three iterations by the "Rave analysis" the coefficient was maximised to the value of $R = .90$. The computer manual interprets the Rave analysis as follows:

"If the items within the instrument do in fact measure a single underlying variable and the items are scalable, the reliability coefficient printed after each iteration should increase in value." 40

It was concluded, therefore, that (a) this instrument was measuring a single underlying variable, and (b) that the items are scalable.

(iii) Discriminating Power of the individual items. In order to select items for the next stage of the research a measure of the discriminating power of each item was obtained. The computer analysis provided a Beta value in respect of each of the six weighted response categories for each individual item. It was noted that in most cases the highest Beta values obtained were those in respect of choices which had been given the highest weighting - i.e. of 6. The Beta values were used, therefore, for deciding which items to include in the construction of two new scales, each having fourteen items. Items assigned to the new scales A and B together with Beta values for all 52 items, are indicated in Table 2.

---

### TABLE 2

**ATTITUDE SCALE CONSTRUCTION**

**SELECTION OF ITEMS FOR NEW SCALE A, AND NEW SCALE B.**

**DISCRIMINATING POWER OF ITEMS. BETA VALUES OBTAINED FOR 52 ITEMS - 354 SUBJECTS. AT RESPONSE WEIGHTED 6.**

<table>
<thead>
<tr>
<th>Item</th>
<th>Beta Value</th>
<th>TSV</th>
<th>New Scale</th>
<th>Item</th>
<th>Beta Value</th>
<th>TSV</th>
<th>New Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>.28</td>
<td>1.04</td>
<td>B</td>
<td>27.</td>
<td>.43</td>
<td>9.77</td>
<td>A</td>
</tr>
<tr>
<td>2.</td>
<td>.39</td>
<td>1.08</td>
<td>A</td>
<td>28.</td>
<td>.38</td>
<td>1.83</td>
<td>A</td>
</tr>
<tr>
<td>3.</td>
<td>.44</td>
<td>10.88</td>
<td>B</td>
<td>29.</td>
<td>.27</td>
<td>8.06</td>
<td>A</td>
</tr>
<tr>
<td>4.</td>
<td>.46</td>
<td>10.76</td>
<td>A</td>
<td>30.</td>
<td>.35</td>
<td>9.04</td>
<td>A</td>
</tr>
<tr>
<td>5.</td>
<td>.33</td>
<td>1.28</td>
<td>A</td>
<td>31.</td>
<td>.30</td>
<td>6.86</td>
<td>A</td>
</tr>
<tr>
<td>6.</td>
<td>.41</td>
<td>1.39</td>
<td>B</td>
<td>32.</td>
<td>-.03</td>
<td>5.30</td>
<td>A</td>
</tr>
<tr>
<td>7.</td>
<td>.30</td>
<td>6.36</td>
<td>A</td>
<td>33.</td>
<td>.11</td>
<td>2.59</td>
<td>A</td>
</tr>
<tr>
<td>8.</td>
<td>.27</td>
<td>6.12</td>
<td>A</td>
<td>34.</td>
<td>.35</td>
<td>6.41</td>
<td>A</td>
</tr>
<tr>
<td>9.</td>
<td>.29</td>
<td>1.33</td>
<td>A</td>
<td>35.</td>
<td>.35</td>
<td>4.70</td>
<td>A</td>
</tr>
<tr>
<td>10.</td>
<td>.46</td>
<td>6.64</td>
<td>A</td>
<td>36.</td>
<td>.45</td>
<td>8.33</td>
<td>B</td>
</tr>
<tr>
<td>11.</td>
<td>.38</td>
<td>6.91</td>
<td>B</td>
<td>37.</td>
<td>.42</td>
<td>9.94</td>
<td>A</td>
</tr>
<tr>
<td>12.</td>
<td>-.09</td>
<td>7.15</td>
<td>A</td>
<td>38.</td>
<td>.39</td>
<td>5.14</td>
<td>B</td>
</tr>
<tr>
<td>13.</td>
<td>.32</td>
<td>6.88</td>
<td>A</td>
<td>39.</td>
<td>.31</td>
<td>5.12</td>
<td>B</td>
</tr>
<tr>
<td>14.</td>
<td>.51</td>
<td>10.07</td>
<td>A</td>
<td>40.</td>
<td>.36</td>
<td>9.32</td>
<td>B</td>
</tr>
<tr>
<td>15.</td>
<td>.32</td>
<td>6.28</td>
<td>A</td>
<td>41.</td>
<td>.09</td>
<td>3.13</td>
<td>B</td>
</tr>
<tr>
<td>16.</td>
<td>.26</td>
<td>1.50</td>
<td>A</td>
<td>42.</td>
<td>.17</td>
<td>5.90</td>
<td>B</td>
</tr>
<tr>
<td>17.</td>
<td>.11</td>
<td>1.80</td>
<td>B</td>
<td>43.</td>
<td>.30</td>
<td>6.00</td>
<td>A</td>
</tr>
<tr>
<td>18.</td>
<td>.38</td>
<td>9.92</td>
<td>A</td>
<td>44.</td>
<td>.28</td>
<td>6.14</td>
<td>A</td>
</tr>
<tr>
<td>19.</td>
<td>.34</td>
<td>9.57</td>
<td>A</td>
<td>45.</td>
<td>.27</td>
<td>4.75</td>
<td>B</td>
</tr>
<tr>
<td>20.</td>
<td>.65</td>
<td>10.33</td>
<td>A</td>
<td>46.</td>
<td>.39</td>
<td>7.68</td>
<td>B</td>
</tr>
<tr>
<td>21.</td>
<td>.41</td>
<td>7.21</td>
<td>A</td>
<td>47.</td>
<td>.34</td>
<td>6.50</td>
<td>B</td>
</tr>
<tr>
<td>22.</td>
<td>.38</td>
<td>8.50</td>
<td>A</td>
<td>48.</td>
<td>.61</td>
<td>10.00</td>
<td>B</td>
</tr>
<tr>
<td>23.</td>
<td>.20</td>
<td>4.81</td>
<td>A</td>
<td>49.</td>
<td>.35</td>
<td>6.75</td>
<td>B</td>
</tr>
<tr>
<td>24.</td>
<td>-.14</td>
<td>5.50</td>
<td>A</td>
<td>50.</td>
<td>.62</td>
<td>8.20</td>
<td>A</td>
</tr>
<tr>
<td>25.</td>
<td>.47</td>
<td>9.81</td>
<td>A</td>
<td>51.</td>
<td>.41</td>
<td>1.50</td>
<td>A</td>
</tr>
<tr>
<td>26.</td>
<td>.47</td>
<td>9.58</td>
<td>A</td>
<td>52.</td>
<td>.21</td>
<td>7.96</td>
<td>A</td>
</tr>
</tbody>
</table>

**Key:**

- **TSV** = Thurstone Scale Value
- **Beta Value** = Discriminating power of Item.
(6) Selection of Items for the third stage of the Attitude Scale construction.

(i) Following Edwards and Kilpatrick's Scale Discrimination technique (see above, Section 5) the response category weightings of the statements need to be dichotomized before proceeding to the third stage. Edwards and Kilpatrick used a criterion of internal consistency by comparing the response frequencies of the upper and lower 27% of their sample. A similar procedure was used in this research, but for convenience a slightly larger percentage size for the group was used. An examination of the total scores of the 354 subjects provided the following information in respect of the upper and lower groups:

<table>
<thead>
<tr>
<th>Total Score</th>
<th>No. of subjects obtaining the score</th>
<th>Total</th>
<th>Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>250+</td>
<td>2</td>
<td>123</td>
<td>Upper Group 34.75%</td>
</tr>
<tr>
<td>240+</td>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>230+</td>
<td>36</td>
<td></td>
<td></td>
</tr>
<tr>
<td>220+</td>
<td>74</td>
<td></td>
<td></td>
</tr>
<tr>
<td>210+</td>
<td>108</td>
<td>108</td>
<td>Excluded</td>
</tr>
<tr>
<td>200+</td>
<td>68</td>
<td>123</td>
<td>Lower Group 34.75%</td>
</tr>
<tr>
<td>190+</td>
<td>42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>180+</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>170+</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>354</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

These groups were used for providing the frequency tables required for the calculation of the dichotomized weightings.

41. c.f. Appendix 8 - Attitude Scale Construction. Total Scores for 354 subjects in response to 52 Item Questionnaire - summated ratings.

42. c.f. Appendix 9 - Attitude Scale Construction. Frequency Tables of upper and lower groups used for dichotomisation of weightings.
weightings\textsuperscript{43} after items for the third stage had been selected.

(ii) Derived beta values, for the response categories weighted six, were plotted against the Thurstone scale values which had been obtained previously. Statements with the highest beta values were selected at each interval of the Thurstone scale. Two attitude scales were thus devised by assigning statements with alternate scale values to the two forms. The results of this procedure are tabulated in Table 4.

**TABLE 4**

**ATTITUDE SCALE CONSTRUCTION - ITEMS SELECTED AT COMPARABLE THURSTONE SCALE INTERVALS, AND BETA DISCRIMINATION VALUES. DERIVATION OF FINAL SCALE A, AND FINAL SCALE B.**
(14 items in each scale)

<table>
<thead>
<tr>
<th>Thurstone Scale Intervals</th>
<th>Final Scale (A) Statements Selected</th>
<th>Final Scale (B) Statements Selected</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>From</td>
<td>To</td>
</tr>
<tr>
<td>1.</td>
<td>0</td>
<td>1.10</td>
</tr>
<tr>
<td>2.</td>
<td>1.10</td>
<td>1.50</td>
</tr>
<tr>
<td>3.</td>
<td>1.50</td>
<td>2.00</td>
</tr>
<tr>
<td>4.</td>
<td>2.00</td>
<td>3.50</td>
</tr>
<tr>
<td>5.</td>
<td>3.50</td>
<td>5.00</td>
</tr>
<tr>
<td>6.</td>
<td>5.00</td>
<td>5.50</td>
</tr>
<tr>
<td>7.</td>
<td>5.50</td>
<td>6.00</td>
</tr>
<tr>
<td>8.</td>
<td>6.00</td>
<td>6.50</td>
</tr>
<tr>
<td>9.</td>
<td>6.50</td>
<td>7.00</td>
</tr>
<tr>
<td>10.</td>
<td>7.00</td>
<td>8.00</td>
</tr>
<tr>
<td>11.</td>
<td>8.00</td>
<td>8.50</td>
</tr>
<tr>
<td>12.</td>
<td>8.50</td>
<td>9.50</td>
</tr>
<tr>
<td>13.</td>
<td>9.50</td>
<td>10.50</td>
</tr>
<tr>
<td>14.</td>
<td>10.50</td>
<td>11.00</td>
</tr>
</tbody>
</table>

Two forms of the Attitude Scale were thus obtained and were labelled **Attitude Questionnaire Parts I and II**. For convenience when administering the instrument in the school

\textsuperscript{43} c.f. Appendix 10 - **Attitude Scale Construction - Stage 3**. Derivation of dichotomous weightings for two parts of attitude scale.
used for the final pilot study, the first part was printed on white paper and the second part on green paper\textsuperscript{44} The 28 items used on the Questionnaire Parts I and II are given below:

\textbf{Attitude Questionnaire Part I}

1. Old people should be killed off.
2. Terrorists should be shot on sight.
3. Terrorists should be hanged.
4. Shoplifters should be severely punished.
5. I do not think quarrelling does any harm
6. Friends should be able to keep their mouths shut about the things they have helped you out in.
7. Vandals try to look big in front of their friends.
8. Friends should not argue with each other.
9. It is important to get on with people.
10. Shoplifters don't get enough at home.
11. I feel sorry for old people.
12. You should not quarrel with people because if you do, things could be said which are not meant.
13. Loneliness is when a week seems a year.
14. I think that being lonely must be one of the worst tortures in life.

\textbf{Attitude Questionnaire Part II}

1. Black people should go back where they came from.
2. What really gets me is why black people can't stay in their own country.
3. Vandals should have their own homes smashed.
4. Shoplifters steal for fun.
5. People who have no need to shoplift should control themselves.
6. Friends are not what they seem to be.
7. You will not be popular if you speak your mind.
8. The meaning of life is to be happy.
9. Friends should stick together.
11. Vandals should be treated with sympathy.
12. Loneliness is when you have no-one to love you.
13. Loneliness is an awful thing for the young and the old.
14. I think for people with cancer it must be hell.

\textsuperscript{44} c.f. Appendices 11 and 12 - Attitude Questionnaires Parts I and II.
(iii) Having constructed two comparable Attitude Questionnaires it was decided to use them in a small pilot study at X, Comprehensive School, Scunthorpe. The two questionnaires were administered to a sample of 120 pupils of mixed ability, Forms I to IV, on Wednesday 12th November, 1975. X Comprehensive School, Scunthorpe, is organised on a streamed basis, so that the groups of children were selected at random from each of the classes by special arrangement with the headmaster. The school was selected on the grounds that the pupils by and large came from a similar socio-cultural background to the pupils of W Comprehensive School, Scunthorpe where the previous stages of the attitude scale construction had taken place.

(iv) The main purpose of this pilot study was to test the reliability of the two forms of the questionnaire and to provide data for a scalogram analysis. Using the University of London CC6600 computer, the following analyses were computed in respect of both questionnaires:

(a) Hoyt Reliability Coefficient on the basis of total scores.
(b) Maximization of H.R.C. by "Rave" iterations.
(c) Beta values in respect of each item.
(d) Point biserial correlation coefficients (item-total score) in respect of each item.

Responses were keyed with the dichotomous weightings previously calculated. The results are shown in Tables 5 and 6.
### TABLE 5

**ATTITUDE SCALE CONSTRUCTION**

**RELIABILITY OF ATTITUDE QUESTIONNAIRE PARTS I AND II**

<table>
<thead>
<tr>
<th>Hoyt Reliability Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>N = 120</td>
</tr>
</tbody>
</table>

(X Comprehensive School, Scunthorpe)

<table>
<thead>
<tr>
<th></th>
<th>Part I</th>
<th>Part II</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Total Scores at W Comprehensive School Hoyt R.</td>
<td>.44</td>
<td>.40</td>
</tr>
<tr>
<td>2. Computer iteration (i)</td>
<td>.64</td>
<td>.57</td>
</tr>
<tr>
<td>3. Computer iteration (ii)</td>
<td>.65</td>
<td>.59</td>
</tr>
</tbody>
</table>

It was concluded that both parts of the questionnaire were reliable, and the evidence of the "Rave" iterations indicated that the items were scalable.
**TABLE 6**

**ATTITUDE SCALE CONSTRUCTION**

**ITEM ANALYSIS FOR ATTITUDE QUESTIONNAIRE**

**PARTS I AND II**

(Point biserial correlation coefficients  
(Item - Total Score) and Beta Values obtained for each item)

<table>
<thead>
<tr>
<th>Item</th>
<th>Part One</th>
<th>Part Two</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>. bis</td>
<td>Beta</td>
</tr>
<tr>
<td>1.</td>
<td>.48</td>
<td>.78</td>
</tr>
<tr>
<td>2.</td>
<td>.22</td>
<td>.86</td>
</tr>
<tr>
<td>3.</td>
<td>.29</td>
<td>.66</td>
</tr>
<tr>
<td>4.</td>
<td>.12</td>
<td>.43</td>
</tr>
<tr>
<td>5.</td>
<td>.21</td>
<td>.30</td>
</tr>
<tr>
<td>6.</td>
<td>.19</td>
<td>.39</td>
</tr>
<tr>
<td>7.</td>
<td>.34</td>
<td>.47</td>
</tr>
<tr>
<td>8.</td>
<td>.22</td>
<td>.35</td>
</tr>
<tr>
<td>9.</td>
<td>.53</td>
<td>.92</td>
</tr>
<tr>
<td>10.</td>
<td>.14</td>
<td>.24</td>
</tr>
<tr>
<td>11.</td>
<td>.46</td>
<td>.72</td>
</tr>
<tr>
<td>12.</td>
<td>.25</td>
<td>.36</td>
</tr>
<tr>
<td>13.</td>
<td>.44</td>
<td>.74</td>
</tr>
<tr>
<td>14.</td>
<td>.38</td>
<td>.57</td>
</tr>
</tbody>
</table>

The results in Table 6 were considered satisfactory and all items were retained. No further modification to the two parts of the Attitude Questionnaire was considered necessary.

(v) Mean scores obtained by each sub-group for Parts I and II of the Attitude Questionnaire are shown in Table 7 and the value of Pearson r, as a measure of the inter-correlation between Parts I and II, is shown in Table 8.
It is noted from Table 7 that there appears to be little difference in the Mean Scores obtained by each of the four year groups. Whereas a slight increase in Mean score is observed between Years I and IV for Part I, the reverse is the case for Part II.

As Parts I and II are constructed as comparable questionnaires with alternate Thurstone Scale Values, a positive intercorrelation between Parts I and II was expected, and demonstrated.

(vi) The evidence of Item Analysis described above in Tables 5 and 6 suggested that the items on both parts of the questionnaire would be scalable. Scalogram analysis was calculated in respect of the
two parts of the questionnaire, and the results are shown in Table 9.

**TABLE 9**

**ATTITUDE SCALE CONSTRUCTION**

**SCALOGRAM ANALYSIS FOR PARTS I AND II OF ATTITUDE QUESTIONNAIRE**

<table>
<thead>
<tr>
<th>Attitude Questionnaire</th>
<th>Total Sum of Errors</th>
<th>Coefficient of Reproducibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part I</td>
<td>608</td>
<td>0.638</td>
</tr>
<tr>
<td>Part II</td>
<td>516</td>
<td>0.692</td>
</tr>
</tbody>
</table>

Higher values for the coefficient of reproducibility were expected than were in fact obtained in this analysis. The present result was accepted, however, as satisfactory within the limits of the present research, and it was decided that the Attitude Questionnaire Parts I and II should be used in their present form as part of the battery of tests to be used in the main experiment.
CHAPTER VI
CONSTRUCTION OF A BEHAVIOURAL SCALE:
THE TEENAGE INTERESTS QUESTIONNAIRE

1. Introduction

Having completed the construction of two attitude scales to measure what may be described as non-conventional religion, it was necessary to decide what instruments would be used to measure religious behaviour. It was decided to construct a new instrument which would include the Hyde-type questions regarding overt religious behaviour (e.g., How often do you go to church?) and also additional questions to elicit information about inter-personal relations and helpfulness. It was recognised that in measuring religious development in adolescence, the main affective elements would be assessed by using the attitude scales. However, information about religious behaviour, and about the adolescent's active concern and compassion for others, would also provide valuable insight into the affective domain. In using Hyde's religious attitude questionnaires, the attitude questionnaires developed in the present research, and also a new behaviour scale it was anticipated that degrees of children's religious behaviour in terms of a conventional and in terms of a non-conventional religious response would be indicated. It was decided to label the instrument "Teenage Interests Questionnaire". The development of the instrument progressed in three stages and is described below.

2. The Development and Revision of the Teenage Interests Questionnaire.

(1) Framing a series of questions.

The intention was to construct a series of questions with reference to several areas of teenage interest but which would include areas of specific interest to the researcher, namely, questions about overt religious behaviour and about compassionate behaviour. The first draft of the questionnaire was designed to include three main sections. (i) An open-ended questionnaire to elicit information about reading, viewing and leisure activities. (ii) A questionnaire directed at introspective information about relationships with parents and friends. (iii) Some questions related to a youth
club situation using a projective technique which aimed to elicit illumination and further information about (i) and (ii). After careful perusal of the initial draft it was amended to include two areas of interest, namely, overt religious behaviour, and helpfulness/relating to others. The questionnaire was sub-divided into eleven sections as follows: - (1) general questions, (2) television programmes, (3) reading, (4) discussion groups, (5) youth club, (6) other organisations, (7) church, Sunday School and the Bible, (8) housework, (9) visiting people, (10) help to charity, (11) opinions and reasons.

(2) First Pilot Study at Y High School, Doncaster on 27.5.76.

(i) Content of the Questionnaire
The questionnaire was designed to map two traits of religious behaviour, namely, (a) overt religious behaviour and (b) concern for others.
In devising the questions it was intended to disguise the "religious" questions by including them amongst other general questions about teenage interests. These general questions were about matters not central to the research project, although it was anticipated that much of the information gained from them would be valuable during the follow-up to the tests when conducting personal interviews with pupils.
Certain content areas were repeated in order to provide a check for reliability by noting the consistency of the answers.

(ii) Weighting of Responses.
(a) Overt religious behaviour: These questions were weighted according to the strength of the declared religious behaviour in a descending scale of 5 through 0. Not all the questions were provided with the same number of response categories, but the weightings of 5 through 0 was maintained as consistently

1. c.f. Appendix 13 - Teenage Interests Questionnaire, First Draft.
as possible. For example:

Question (1) 7. Going to church. The response weightings were:
- every day - 5 points
- every week - 4 points
- every month - 3 points
- sometimes - 1 point
- never - 0

This may be compared with:

Question (2) 3. Religious T.V. programmes.

The response weightings were:
- very interesting - 5 points
- interesting - 3 points
- not interesting - 0

(b) Concern for others: These questions were weighted according to a scale of 5 through 0 based on the following criteria:

i. Behaviour which involves activity with others (e.g. going to a Youth Club, taking part in a discussion etc., received a maximum of 3 points.

ii. Behaviour which reveals active help for others (e.g. serving coffee at the Youth Club, visiting old people, etc.) received a maximum of 5 points.

For example:

Question 1 (11) going to dances/discos. The weightings given were:
- every day - 3 points
- every week - 3 points
- every month - 2 points
- sometimes - 1 point
- never - 0

This may be compared with:

Question (8) help in the house - washing up - 5 points and Question (10) helping a charity organisation - 5 points.

Some questions provided the possibility of responses which revealed religious content, namely those questions eliciting information about T.V. programmes, book reading, discussion
topics.
For example:-
Questions 24 to 29 and 31 to 33 were weighted 5/0.
That is:- the responses received a dichotomous weighting. Examples of responses which were given 5 points were:-
interest in - "The Exorcist"
The Survivors
Down and Outs
Religion
Use and abuse of drugs
Black magic and witchcraft
"Kes"
The weightings given for each response to the Teenage Interests Questionnaire is shown in Appendix 14.2
(iii) Administration of the Questionnaire:
(a) The questionnaire was given to a group of 20 pupils at Y High School, Doncaster on Thursday 27th May, 1976 at 1.30 p.m. The group comprised a mixed ability set of Third Year pupils for an English lesson. The age of the pupils was 13 to 14 years. There were 12 girls and 8 boys.
(b) The aims of the research were described to the children in terms of "finding out about teenage interests" and complete confidentiality of answers given was promised. The help of the pupils was requested. The pupils began the questionnaire at 13.40 hours and most of them took approximately 20 minutes to complete it. The first girl finished in exactly 12 minutes (i.e. at 13.52 hours) and the last girl finished in 35 minutes (i.e. at 14.15 hours). After collecting in the answer sheets there was time for a short discussion, and it appeared that the children had enjoyed the

2. c.f. Appendix 14 - Teenage Interests Questionnaire First Pilot Study - Table of Weights assigned for scoring answers.
exercise, and were very interested in the questions.

c) No major difficulties were encountered in the administration. Three questions were asked by the pupils whilst working on the questions. These were:-

i. "What do you mean by interesting? Can I include funny ones?"

ii. "If you answer "No" to Q.6(1) do you ignore Q.6(2)?"

iii. "Can you write the titles of magazines or only books?"

(iv) Scoring the Answer Sheets

The scoring procedure was straightforward. By using the Item analysis programme on the London University Computer, all that was required for each subject was to note which response was given, and to transfer this information on to punched cards.

One difficulty was encountered, however, after beginning the scoring. Question 11(2) was marked for the computer as Response 75, and weighted 5 through 0 for overt religious behaviour. It was realised, however, that some pupils' responses to this question showed a measure of concern for others - i.e. the second category of religious behaviour which it was hoped to measure. It was decided, therefore, to allow two scores for this question: - score A (religion as overt religious behaviour) and score B (religion as concern for others). Accordingly, Responses 75 and 76 on the computer card were given to this question.

(v) Analysis of Results

(a) In the first instance it was decided to compute an item analysis of the test, using the total scores for each subject and not differentiating between overt religious behaviour and concern for others. The Hoyt reliability coefficient for the instrument as a whole was also computed. The details of the results are as shown in Table 10.
### TABLE 10

**TEENAGE INTERESTS QUESTIONNAIRE**

**FIRST PILOT STUDY - TOTAL SCORES**

AND HOYT RELIABILITY COEFFICIENT

<table>
<thead>
<tr>
<th>Total Scores, N = 20</th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>98</td>
<td>95</td>
<td>35</td>
<td>82</td>
<td></td>
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<tr>
<td>64</td>
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<tr>
<td>52</td>
<td>92</td>
<td>110</td>
<td>75</td>
<td>66</td>
<td></td>
</tr>
</tbody>
</table>

Mean Score = 82.3

S.D. = 29.02

Hoyt R. = .83

(b) Further details were computed also, namely, indices of item difficulty, point biserial correlation coefficients based on item-total score, and Beta values showing the discriminating power of each item. These details are tabulated in Appendix 15.3.

(c) No problems were encountered in administering the questionnaire in the first pilot study, and it was decided to administer the questionnaire to a larger sample in order to make an item analysis, and thus to provide the basis for modifying and refining the instrument for use later on in the main experiment.

(3) Second Pilot Study at the Y High School, Doncaster

(i) It was decided to make a second trial run of the administration of the Teenage Interests Questionnaire with a larger sample and this was carried out on Thursday July 15th 1976 at Y High School, Doncaster.

The classes at Y High School are organised in "sets" and four classes, from each of years I to IV, and from the "Middle Set" were selected for the admin-

3. c.f. Appendix 15 - Teenage Interests Questionnaire

First Pilot Study - Item Analysis.
The administration of the test. The size of the sample was as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Boys</th>
<th>Girls</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>10</td>
<td>15</td>
<td>25</td>
</tr>
<tr>
<td>II</td>
<td>13</td>
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<td>11</td>
<td>22</td>
</tr>
<tr>
<td>IV</td>
<td>11</td>
<td>13</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>45</td>
<td>56</td>
<td>101</td>
</tr>
</tbody>
</table>

Thirty minutes was allowed for each class, but in the event whilst most children finished the test in good time there were a few pupils in each class who failed to complete the final question within the time allotted. (An adjustment was made for these children when scoring the answer papers).

(ii) The pupils' responses to the questionnaire were scored in accordance with a weighting procedure designed to produce four sub-scales, namely: - (a) Overt Religious Behaviour (b) Others, (c) Help, and (d) Reasons.

The selection of items for the four sub-scales was straightforward. (a) Items which were eliciting information about "unambiguous" religious behaviour, e.g. church-going, were assigned the the Overt Religious Behaviour scale. (b) Items which were eliciting information about the subject's interaction with others, e.g. going to dances, writing letters, etc., were assigned to the Others scale. (c) Items which were eliciting information about help given by the subject to others, e.g. help with the cooking at home, were assigned to the Help scale. (d) Finally, items on Question 11 were assigned to the Reasons scale. These items were different in form from the other items in the questionnaire because they asked pupils to indicate opinions and reasons about the behaviour of others. The assumption was made that the pupils would project their own feelings and reveal their own behavioural patterns in responding to these items. It is to be noted that in the pilot study it was considered sufficient for the researcher himself to score the answers.
for this question, but in the main experiment this question was scored by a team of three judges who were asked to score the answers on a six-point scale, 5 through 0, according to the criterion of the measure of compassion, concern for and sensitivity to others which was indicated by the opinions and reasons given. Answers were evaluated on a continuum as follows: -

<table>
<thead>
<tr>
<th></th>
<th>compassionate, sensitive concerned for others.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>insensitive.</td>
</tr>
<tr>
<td></td>
<td>uncompassionate.</td>
</tr>
</tbody>
</table>

(iii) The results of the Item analysis are given below in Tables 11 and 12. The scores obtained from the responses of the 101 subjects were subjected to a rigorous form of item analysis using the Fortran programme on the London University CC6600 computer. For the test of reliability of the separate sub-scales, the Hoyt Reliability Coefficient was computed and the results were satisfactory.

TABLE 11

<p>| | | | | | |</p>
<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Overt Religious Behaviour</td>
<td>R = .65</td>
<td>SE = 3.18</td>
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<tr>
<td></td>
<td>Others</td>
<td>R = .82</td>
<td>SE = 4.11</td>
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</tr>
<tr>
<td></td>
<td>Help</td>
<td>R = .69</td>
<td>SE = 2.30</td>
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</tr>
<tr>
<td></td>
<td>Reasons</td>
<td>R = .68</td>
<td>SE = 0.97</td>
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</tbody>
</table>

Note: after Rave analyses (showing that the items are scalable) these values were increased to: religious behaviour R = .78; Others, R = .67; Help, R = .76; and Reasons, R = .67 (a slight decrease).

4. In the revised form of the Teenage Interests Questionnaire used in the main experiment, this scheme was modified for item 45 (the report by Peter) and a four-point scale (3 through 0) was used. Marks were assigned either to religious behaviour (for answers which indicated an agreement with "Bill") or to Helpfulness (for answers which indicated an agreement with "Peter").
In order to decide which items to retain for the final form of the questionnaire it was necessary to look carefully at the values of discrimination (Beta), and at the correlation coefficients between item and total score, in respect of each item. For the calculation of the correlation, point biserial $r$ was used. ($r_{bis}$)

These two indices were used as a basis for the decision whether to include each item in the final form of the questionnaire. When either or both these indices indicated a low value, the item was rejected. For each item the highest values obtained were used as the basis for the decision irrespective of the weighting system assigned to the item. The details of this item analysis and an indication as to whether the items were retained or rejected for the final form of the questionnaire are shown in Table 12.

<table>
<thead>
<tr>
<th>Sub-Scale</th>
<th>Item</th>
<th>Choice</th>
<th>Weight given</th>
<th>Total responses</th>
<th>$r_{bis}$</th>
<th>Beta index of discrimination</th>
<th>Reject item</th>
</tr>
</thead>
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<tr>
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</tr>
</tbody>
</table>

**TABLE 12**

**TEENAGE INTERESTS QUESTIONNAIRE**

**ITEM ANALYSIS - FIRST DRAFT - (N = 101)**

(Items to be rejected indicated)
<table>
<thead>
<tr>
<th>Sub-Scale</th>
<th>Item</th>
<th>Choice</th>
<th>Weight</th>
<th>Total responses</th>
<th>$\text{bis}$</th>
<th>$R$</th>
<th>Beta index of discrimination</th>
<th>* = reject item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Others</td>
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<td>62</td>
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<td>1</td>
<td>59</td>
<td>.57</td>
<td>1.04</td>
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<td></td>
<td>63</td>
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<td>1</td>
<td>23</td>
<td>.60</td>
<td>1.55</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>64</td>
<td>1</td>
<td>1</td>
<td>41</td>
<td>.57</td>
<td>1.04</td>
<td></td>
<td></td>
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<td></td>
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<td>34</td>
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<td>.90</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>66</td>
<td>1</td>
<td>1</td>
<td>79</td>
<td>.23</td>
<td>.34</td>
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<td>*</td>
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<td></td>
<td>67</td>
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<td>1</td>
<td>42</td>
<td>.57</td>
<td>1.05</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>68</td>
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<td>1</td>
<td>60</td>
<td>.37</td>
<td>.54</td>
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</table>
TABLE 12 (cont.)

<table>
<thead>
<tr>
<th>Sub-Scale</th>
<th>Item</th>
<th>Choice</th>
<th>Weight given</th>
<th>Total responses</th>
<th>R</th>
<th>Beta index of discrimination</th>
<th>* = reject item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Help</td>
<td>69</td>
<td>1</td>
<td>1</td>
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<td>1</td>
<td>1</td>
<td>26</td>
<td>.16</td>
<td>.23</td>
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<td>72</td>
<td>1</td>
<td>1</td>
<td>73</td>
<td>.22</td>
<td>.32</td>
<td>*</td>
</tr>
<tr>
<td>Reasons</td>
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<td>4</td>
<td>32</td>
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<td>4</td>
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<td>.80</td>
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</tr>
<tr>
<td></td>
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<td>2</td>
<td>4</td>
<td>39</td>
<td>.45</td>
<td>.70</td>
<td></td>
</tr>
</tbody>
</table>

(iv) Summary of Results

It was noted that the following items generated low values either for the point biserial correlation coefficient (calculated on item score/total score) or for the Beta index of discrimination. (In some cases both values were low.)


Others: Items 12, 16.

Help: Items 41, 58, 59, 61, 66, 70, 72.

It was decided to exclude these sixteen items from the final form of the questionnaire. The revised form to be used in the main experiment is given in an appendix. The weighting of responses for calculating the scores in the revised form of the Teenage Interests Questionnaire is also given in an appendix. A table of inter-correlations between each of the four sub-scales obtained in the pilot study at Y High School, Doncaster is given below in Table 13.

5. c.f. Appendix 16 - Revised form of Teenage Interests Questionnaire, retained for use in the main experiment.

6. c.f. Appendix 17 - Revised Teenage Interests Questionnaire weights assigned to each response category.
### TABLE 13

**TEENAGE INTERESTS QUESTIONNAIRE**

**RELIGIOUS BEHAVIOUR SCALES**

*(PILOT STUDY - Y HIGH SCHOOL, DONCASTER)*

**TABLE OF INTERCORRELATIONS – PEARSON r.**

<table>
<thead>
<tr>
<th></th>
<th>Others</th>
<th>Help</th>
<th>Reasons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overt Religious Behaviour</td>
<td>.20992*</td>
<td>.39547**</td>
<td>.24038*</td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td></td>
<td>- .05634</td>
</tr>
<tr>
<td>Help</td>
<td></td>
<td>.46504**</td>
<td></td>
</tr>
</tbody>
</table>

*Sample size:* 101

* * p < .05  ** p < .01

**Comments:**

1. Positive and significant intercorrelations were expected but were not obtained for Reasons/Others, and Reasons/Help.

2. The Sub-scale Reasons, however, contained only three items and this may account for low values obtained.
CHAPTER VII
THE DEVELOPMENT AND REVISION
OF A RELIGIOUS THINKING TEST

1. Introduction.

It was decided, according to the experimental design of this research, to devise an instrument to study the cognitive elements in the religious thinking of adolescents. To inform and facilitate the construction of a suitable test instrument it was necessary to define as precisely as possible the cognitive area which was to be tested. It was relevant at this stage also to refer to Hyde's research, to the work of Goldman and to my own discussion of key concepts of religious experience. Bloom's "Taxonomy of Educational Objectives" afforded valuable clues for the construction of test items. ¹ This chapter describes the purpose of the religious thinking test and the way it was constructed, revised, and tested in a small pilot study in a Secondary School. The scoring procedure is also discussed.

2. A point of departure: Goldman, Hyde et al.

Several studies have investigated children's ideas of God. Hyde comments:

"There seems general agreement that by the time most children reach the higher forms of secondary school life they are capable of abstract religious thinking: concrete thinking has been outgrown and propositional thinking has emerged."²

Hyde constructed two instruments to assess children's religious thinking, the Image of God test and the Religious Concept Test. The first test comprised 21 true/false statements on God, Jesus and the Holy Spirit - and as Hyde observes - it proved to be a test of religious orthodoxy. The second test was constructed from an initial list of "likely terms and words considered important in religious instruction, and of frequent occurrence both in the Bible and the hymn book." Hyde remarks that "understanding of religious truth can only be adequate when religious vocabulary is fully related to correct religious concepts."³ In constructing the Religious Concepts Test Hyde

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3. ibid., page 57
was fully aware of the strong element of "verbalism" which it contained—and that high scores might only indicate a high level of verbal ability. 4 His results, however, indicated that differences in religious behaviour, rather than Mental Age as an approximate measure of verbal ability, were the main factor influencing the test scores. "The development of religious thinking," Hyde concludes, "is dependent on positive religious attitudes and behaviour," and "it must be noted that the age at which marked deterioration of attitude is observed coincides with the period of mental development when critical thinking clearly emerges." 5 The importance of this finding was noted in our earlier review of Hyde's work, and one of the aims of the present investigation is to ascertain whether this situation still obtains. It is unlikely, however, that Hyde's tests for religious thinking will be suitable for our use.

Russell 6 suggests four essential ingredients of children's thinking, and Goldman 7 discusses these with reference to religious thinking. Goldman asserts that "religious thinking is no different in mode and method from non-religious thinking. Religious thinking is a shortened form of expressing the activity of thinking directed towards religion . . . . ." 8 Goldman was interested particularly in the role of the intellect in religious development and his research was directed towards the question of whether there are sequences or patterns of religious thought to be discerned with increasing chronological mental age, and whether there are limits of religious understanding imposed by age, immaturity, attitudes of parents and other factors. Goldman's interesting and important findings have already been discussed 9 and are a relevant consideration within the present objective of constructing a religious thinking test. Russell's categories are:—(a) materials of thinking, (b) processes of thinking, (c) motives for thinking, (d) abilities in thinking. The materials for religious thinking are the sensations and perceptions of the external world— or more precisely, of

5. ibid., page 92
6. Russell D. H. — Children's Thinking, Ginn 1956
8. ibid.
9. c.f. Part One, IV, 3 of this dissertation.
religious phenomena in the external world. The processes of religious thinking are "patterns of activity seen in selecting, eliminating, searching, manipulating, or arranging, beginning with crude undirected thinking, through inductive thinking, problem-solving and creative thinking." It is now well established that these thought processes may be described in terms of developmental stages. The motives for religious thinking are the feelings, attitudes and habits of thought acquired at an emotional level which help initiate and determine the direction of thinking, and we have noted earlier Hyde's conclusion that the development of religious thinking is dependent upon religious attitudes being positive. The abilities in thinking are the habits and techniques and guides to thinking which may be developed and acquired but which may be limited by natural capacity.

3. Key concepts of religious experience and the construction of the preliminary draft of the Religious Thinking Test.

(1) Before constructing items to test religious cognition an attempt had to be made to map out the area which was to be tested. Instruments for assessing the affective elements of religious experience (attitudes and behaviour) had been constructed; an instrument was required to test the cognitive elements of adolescent religious experience. Bloom et al suggest a complete taxonomy in three major parts - the cognitive, the affective and the psycho-motor domains. "The cognitive domain . . . . includes those objectives which deal with the recall or recognition of knowledge and the development of intellectual abilities and skills." Within Bloom's taxonomy the cognitive domain includes six elements - knowledge, comprehension, application, analysis, synthesis and evaluation. For the purposes of this research these may be simplified into (a) knowledge concerning

10. Note: I am attempting here a gloss on Goldman's discussion of Russell's categories.
12. c.f. Piaget, Harms, Goldman, Hyde etc. but note the criticisms of R. Murphy - Part One, IV, 3 of this dissertation.
15. ibid., page 7.
religious phenomena, (b) reasoning with regard to religious phenomena - i.e. what sense does the pupil make of the "religious world?" (c) application - how does the pupil relate his perception of religious phenomena with his perception of other kinds of phenomena - i.e. what sense does he make of the "religious world" in relation to the other "worlds" which he inhabits?

(2) The description of key concepts of religious experience given in an earlier chapter included the following areas:-
(i) Religion as man's response to chaos, (ii) Religion as a sui-generis activity and the notions of awe and worship, (iii) The religious dimensions of doctrine, myth, ethics, ritual, experience and of society, (iv) Religion as ultimate concern, (v) Religion as the dimension of mystery (vi) The sociological and psychological interpretations of religion. It was recognised that the devising of items for the Religious Thinking Test must be made with reference to these key concepts.

(3) The purpose of constructing the test was two-fold:-
(i) to collect information about individual children which would contribute to the total "religious profile" which was being built up - i.e. religious attitude, behaviour and cognition, (ii) to enquire whether the situation described by Hyde still obtained.

(4) Content areas from which items for the Religious Thinking Test were devised.
Section A: Knowledge concerning Religious Phenomena
Facts about:-
1. Religions - e.g. Islam, Christianity, Hinduism.
2. Religious Buildings - churches, temples, mosques etc.
3. Denominations - Anglican, Methodist, Roman Catholic.
4. Religious Leaders - e.g. priest, minister, nun, monk etc.
5. Bible - e.g. the four gospels, OT and NT etc.
6. Feast Days - e.g. Good Friday, Ramadan, Dipavali, Christmas etc.
Section B: Making sense of religious phenomena.
What sense is made of:-
1. religious ritual - e.g. the sign of the cross, bread and wine, fasting, use of lights.
2. religious dress - e.g. the nun's habit, the priest's clerical collar, the Buddhist's saffron robe.
3. doctrines of Incarnation, Resurrection, Salvation.
4. religious atmosphere - the solemnity of the Mass, the abandon of a revival meeting.

Section C: Application: "Religious" and Other perceptions.
What sense is made of:-
1. The place of the established Church in the affairs of State - c.f. The Queen's coronation, the appointment of bishops.
2. The role of the clergy in the community - c.f. hospitals, weddings, funerals, baptisms.
3. The function of religion as providing "comfort", "peace", a sense of value, a purpose in life, an ethical code etc. for the individual.
4. The intellectual problem of evil and the need for a theodicy.
5. School assemblies, prayers, religious instruction - i.e. the place of religion in a total education.

(5) The first draft of the test was constructed with three sections corresponding to the three areas (a), (b) and (c) referred to in paragraph (1) above. The third section (Section C) of the test provided an essay-type question on the theme of "Faith and Doubt". 16

4. Revision of the Preliminary Draft of the Religious Thinking Test.

(1) The advantage of constructing items with multi-choice answers was that when administering the test to a large sample, the scoring of the answer sheets would be a comparatively simple process. The disadvantage of the method, however, was seen to lie in the possibility that some answers would be based on guesswork, although if several choices were provided this inherent inaccuracy would be minimised. The task in constructing "good" items - - -

was to disguise the correct answer within a selection of answers all of which would sound plausible. In constructing the present Religious Thinking Test it had been decided to use the multi-choice answer method for the first two sections and to provide a more open-ended series of questions for the third section.

(2) After careful examination of the first draft of the test it was clear that the proposals for the first two sections were generally acceptable, with the exception of Section II, Question 7 where it was decided to replace the ambiguous "What is the most common way of Christian worship?" by the less ambiguous "What is Christian prayer?" The third section, however, was plainly in need of revision. Although a measure of open-endedness was desirable it was recognised that the Faith and Doubt section needed a greater degree of structure than had been provided in the original draft. The third section was, therefore, revised and simplified: three themes were selected, namely, suffering, personal religion, and the problem of religion and science. A simple structure was devised by which it was intended that the pupil would initially be helped to focus his attention on the main issue. This structure was (a) the provision of a box on the question paper in which the pupil was asked to place a tick to indicate his immediate response to the question, and (b) a second question in which he was invited to give reasons and explanatory comment about his initial response. Having made these revisions to the original document it was necessary to use the revised form of the test in a small pilot study. 17

5. Pilot Study - Administration of Revised Religious Thinking Test at Z High School, Doncaster on 20.1.77.

(1) Administration of Test
The test was administered to four groups of children at Z High School, Doncaster, on 20th January 1977. The age of the children was between 11 and 15 years. The sample was selected at random by the school in response to a request for a group of mixed ability pupils from each of years 1 to 4. The size of the sample was as follows:-

17. c.f. Appendix 19 - Revised Form of Religious Thinking Test.
109 pupils were given the test but two scripts were rejected after scrutiny (one from Year II and one from Year III). In one case a child had failed to complete several items, and in the other case the child had ticked the same response category so consistently as to indicate that he had not understood the subject matter of the test items. Thus 107 scripts were included for the analysis. The researcher himself administered the test and no technical difficulties were encountered; the pupils appeared to respond eagerly to the demands of the test situation and wrote the test in a relaxed but examination-like atmosphere. Most pupils completed the work within 30 minutes and a double period was allocated for the task thus ensuring that the test was written in a calm, unhurried atmosphere.

(2) Scoring procedure

Total scores were computed by assigning weights to the correct responses for the questions in Parts I and II and by assigning weights to the responses for the questions in Part III according to the quality of the answers. In the first instance a weight of one was given to each correct response in Sections A and B, and for Section C the weights given were as follows:-

- Question 1. (i) a, b, and c. weight 4
- 2. (i) a, b, and c. weight 4
- 3. (i) a, b, and c. weight 4
- 1. (ii) weights 0, 2, 4 and 6
- 2. (ii) weights 0, 2, 4 and 6
- 3. (ii) weights 0, 2, 4 and 6

It was the intention to use the reciprocal averages program (RAVE) in analysing the data, so that the above provided the a priori weighting scheme which was necessary to begin the iterations of the Rave analysis. After further consideration, however, it was decided that because the marking scheme for the second part of the questions in Section C
included credit for consistency with the answer given in the first part, a more appropriate weighting for the responses to the first part of the questions would be a weighting of zero, and this was included in the Rave analysis. The results of the analysis are tabulated in the pages following. The criteria used for grading the answers in Section C need to be indicated.

(a) If the space was blank or if the answer was entirely irrelevant, the weight given was zero.

(b) If the answer was consistent with the response given to the first part of the respective question, the weight given was two.

(c) If the answer was consistent etc., and provided evidence that the pupil was thinking seriously about the problem, the weight given was four.

(d) If the answer was particularly thoughtful, balanced, etc., the weight given was six.

(3) Results of Item Analysis
The test papers were scored according to the criteria clearly described and subjected to an item analysis, using the London University Computer Fortran Item Analysis programme. The results are given on the following pages in Tables 14, 15, 16, 17 and 18.
TABLE 14
RELIGIOUS THINKING TEST – PILOT STUDY
ITEM ANALYSIS (N = 107)
POINT CORRELATION COEFFICIENTS AND BETA VALUES
DERIVED AFTER FINAL RAVE ITERATION

Hoyt R = .5732

<table>
<thead>
<tr>
<th>Item</th>
<th>% response</th>
<th>r_bis</th>
<th>Beta</th>
</tr>
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<td>68</td>
<td>.34</td>
<td>.49</td>
</tr>
<tr>
<td>2.</td>
<td>55</td>
<td>.17</td>
<td>.22</td>
</tr>
<tr>
<td>3.</td>
<td>79</td>
<td>.37</td>
<td>.62</td>
</tr>
<tr>
<td>4.</td>
<td>80</td>
<td>.43</td>
<td>.78</td>
</tr>
<tr>
<td>5.</td>
<td>44</td>
<td>.45</td>
<td>.68</td>
</tr>
<tr>
<td>6.</td>
<td>72</td>
<td>.06</td>
<td>.09</td>
</tr>
<tr>
<td>7.</td>
<td>32</td>
<td>-.17</td>
<td>-.23</td>
</tr>
<tr>
<td>8.</td>
<td>69</td>
<td>.37</td>
<td>.56</td>
</tr>
<tr>
<td>9.</td>
<td>39</td>
<td>.37</td>
<td>.54</td>
</tr>
<tr>
<td>10.</td>
<td>47</td>
<td>.35</td>
<td>.49</td>
</tr>
<tr>
<td>11.</td>
<td>59</td>
<td>.15</td>
<td>.20</td>
</tr>
<tr>
<td>12.</td>
<td>21</td>
<td>.29</td>
<td>.44</td>
</tr>
<tr>
<td>13.</td>
<td>43</td>
<td>.40</td>
<td>.58</td>
</tr>
<tr>
<td>14.</td>
<td>15</td>
<td>.24</td>
<td>.40</td>
</tr>
<tr>
<td>15.</td>
<td>62</td>
<td>.09</td>
<td>.12</td>
</tr>
<tr>
<td>16.</td>
<td>10</td>
<td>.28</td>
<td>.54</td>
</tr>
<tr>
<td>17.</td>
<td>49</td>
<td>.23</td>
<td>.31</td>
</tr>
<tr>
<td>18.</td>
<td>43</td>
<td>.04</td>
<td>.05</td>
</tr>
<tr>
<td>19.</td>
<td>63</td>
<td>.45</td>
<td>.72</td>
</tr>
<tr>
<td>20.</td>
<td>42</td>
<td>.26</td>
<td>.35</td>
</tr>
<tr>
<td>21. i.</td>
<td>40</td>
<td>.12</td>
<td>- .15</td>
</tr>
<tr>
<td>ii.</td>
<td>42</td>
<td>.20</td>
<td>.26</td>
</tr>
<tr>
<td>iii.</td>
<td>17</td>
<td>-.11</td>
<td>-.16</td>
</tr>
<tr>
<td>22. i.</td>
<td>05</td>
<td>-.22</td>
<td>-.51</td>
</tr>
<tr>
<td>ii.</td>
<td>30</td>
<td>-.33</td>
<td>-.48</td>
</tr>
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<td>iii.</td>
<td>05</td>
<td>.01</td>
<td>-.02</td>
</tr>
<tr>
<td>iv.</td>
<td>57</td>
<td>.41</td>
<td>.62</td>
</tr>
<tr>
<td>23. i.</td>
<td>10</td>
<td>.10</td>
<td>.18</td>
</tr>
<tr>
<td>ii.</td>
<td>41</td>
<td>-.18</td>
<td>-.24</td>
</tr>
<tr>
<td>iii.</td>
<td>47</td>
<td>.11</td>
<td>.14</td>
</tr>
<tr>
<td>24. i.</td>
<td>06</td>
<td>-.22</td>
<td>-.48</td>
</tr>
<tr>
<td>ii.</td>
<td>44</td>
<td>-.17</td>
<td>-.22</td>
</tr>
<tr>
<td>iii.</td>
<td>36</td>
<td>.09</td>
<td>.12</td>
</tr>
<tr>
<td>iv.</td>
<td>12</td>
<td>.29</td>
<td>.53</td>
</tr>
<tr>
<td>25. i.</td>
<td>14</td>
<td>.06</td>
<td>.10</td>
</tr>
<tr>
<td>ii.</td>
<td>41</td>
<td>.17</td>
<td>.23</td>
</tr>
<tr>
<td>iii.</td>
<td>42</td>
<td>-.18</td>
<td>-.24</td>
</tr>
<tr>
<td>26. i.</td>
<td>29</td>
<td>-.43</td>
<td>-.70</td>
</tr>
<tr>
<td>ii.</td>
<td>57</td>
<td>.16</td>
<td>.21</td>
</tr>
<tr>
<td>iii.</td>
<td>11</td>
<td>.39</td>
<td>.84</td>
</tr>
<tr>
<td>iv.</td>
<td>009</td>
<td>-.06</td>
<td>-.26</td>
</tr>
</tbody>
</table>
TABLE 15

RELIGIOUS THINKING TEST - PILOT STUDY
RELIABILITY OF TEST INSTRUMENT - HOYT
RELIABILITY COEFFICIENT

<table>
<thead>
<tr>
<th></th>
<th>Hoyt R</th>
<th>Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>A priori weighting</td>
<td>.54</td>
<td>3.48</td>
</tr>
<tr>
<td>After Rave iterations</td>
<td>.54</td>
<td>10.08</td>
</tr>
<tr>
<td></td>
<td>.57</td>
<td>9.76</td>
</tr>
<tr>
<td></td>
<td>.57</td>
<td>9.74</td>
</tr>
</tbody>
</table>

TABLE 16

RELIGIOUS THINKING TEST - PILOT STUDY
PERCENTAGE RESPONSES TO THREE "INFORMATION ELICITING" QUESTIONS IN PART III OF THE TEST.*

<table>
<thead>
<tr>
<th>Section C. Q 1(i)</th>
<th>Yes</th>
<th>40</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you think there is a God when there is so much suffering in the world?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not Sure</td>
<td>42</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>17</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section C. Q 2(i)</th>
<th>Very Important</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>How important is religion for you?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Important</td>
<td>41</td>
<td></td>
</tr>
<tr>
<td>Not Important</td>
<td>47</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section C. Q 3(i)</th>
<th>To a large extent</th>
<th>14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do things we learn in Science at school disprove what we learn about religion?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sometimes</td>
<td>41</td>
<td></td>
</tr>
<tr>
<td>Very Seldom</td>
<td>42</td>
<td></td>
</tr>
</tbody>
</table>

* Extracted from Table 14.

N = 107
### TABLE 17

**RELIGIOUS THINKING TEST - PILOT STUDY**

**TOTAL SCORES FOR PARTS I AND II OF TEST**

<table>
<thead>
<tr>
<th>N = 107</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>1</td>
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<tr>
<td>11</td>
</tr>
<tr>
<td>21</td>
</tr>
<tr>
<td>31</td>
</tr>
<tr>
<td>41</td>
</tr>
<tr>
<td>51</td>
</tr>
<tr>
<td>61</td>
</tr>
<tr>
<td>71</td>
</tr>
<tr>
<td>81</td>
</tr>
<tr>
<td>91</td>
</tr>
<tr>
<td>101</td>
</tr>
</tbody>
</table>

Note: - Nos. 1 - 27 = Year 1  
Nos. 28 - 52 = Year 2  
Nos. 53 - 79 = Year 3  
Nos. 80 - 107 = Year 4

### TABLE 18

**RELIGIOUS THINKING TEST - PILOT STUDY**

**MEAN SCORES YEARS 1 TO 4**

<table>
<thead>
<tr>
<th>Year</th>
<th></th>
<th>M.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year I</td>
<td>27 subjects</td>
<td>M.S. = 9.48</td>
</tr>
<tr>
<td>Year II</td>
<td>25 subjects</td>
<td>M.S. = 9.76</td>
</tr>
<tr>
<td>Year III</td>
<td>27 subjects</td>
<td>M.S. = 10.22</td>
</tr>
<tr>
<td>Year IV</td>
<td>28 subjects</td>
<td>M.S. = 10.60</td>
</tr>
<tr>
<td>Total Sample</td>
<td>107 subjects</td>
<td>M.S. = 10.02</td>
</tr>
</tbody>
</table>

Note: Mean Score increases with age
(4) Comments on Results

(i) The scoring scheme for Section C was workable. However, it was decided that when administering the test in the main experiment, a simple scoring scheme with detailed instructions to the judges who would mark the papers would need to be devised. It was noticed in the pilot study that some pupils tended to focus on one aspect of the problem whereas others wrote full and balanced answers. In the scoring scheme devised for the main experiment this would need to be taken into account. A trial run with a team of judges to test the objectivity of a scoring scheme is described in Section 6 below.

(ii) Results from Section A and B.

In designing the test it was expected that Section A would prove easier than Section B. Section A elicits factual information; Section B elicits understanding of the meaning underlying the facts. A comparison of the percentage scores obtained for these two sections (Items 1 to 10, and Items 11 to 20) can be made by reference to Table 14. It is clear that a higher percentage of pupils gave correct responses to Section A than to Section B. A detailed discussion of the answers scored is not appropriate here. But it is interesting to note the following examples and to reflect on whether they are due to ignorance, to an inability to read the question, or to teenage delight in writing deliberately wrong answers. These matters could possibly be resolved by interviewing the children. These examples are taken at random from the results:

(a) 11 pupils thought that the Pope founded the Christian religion; 15 pupils indicated Herod; 7 said it was the Archbishop of Canterbury.

(b) 25 pupils thought that the Archbishop of Canterbury was a Roman Catholic; 4 pupils thought he belonged to the Methodists.

(c) 48 pupils indicated that on Palm Sunday
Christians remember especially Jesus rising from the dead.

(d) 43 pupils thought that bread and wine in the service of Holy Communion stand for the feeding of 5,000 people. 30 pupils thought that it stands for the food which Jesus used to eat; 1 pupil rejected this entirely and wrote that the bread and wine stand for "the body and blood of Christ."

(e) 47 pupils thought that incarnation meant belief in life after death. 29 pupils thought it meant belief in reincarnation.

(f) 25 pupils thought that churches have Sunday Schools because Jesus loved little children. 18

(iii) Statistical Analysis (See Tables 14 to 18)

The Hoyt Reliability coefficients and the general pattern of values obtained for correlation between item score and total score, suggested that the instrument was reliable. The "Rave" iterations indicated that the instrument was measuring a single underlying variable and that the items were scalable. (See Table 15). The negative Beta values for Item 7 suggested that this item needed modification (see Table 14). It was decided to re-word this item as follows: "What is the name given to the person in the Church of England who conducts the services in the church on a Sunday?" Low Beta values were obtained also for Items Section 6 and 18. These items were revised as follows: For Item 6 the wording of the question was changed to "what is the name given to the Head of the Church of England?" and the choices given for Item 5 were used also for this item. Item B8 was discarded and a new item devised, namely, "why is the Bible a very important book for Christians?"

---

18. c.f. Appendix 20 - Details of number of responses given to each choice, and percentage of correct response given to each question for Sections A and B of the Revised Religious Thinking Test.
With these modifications it was considered that the instrument was satisfactory and ready for use in the main experiment.  

6. Testing the Objectivity of the Scoring Scheme for Section C.  

(1) Instruction to judges.  

It was claimed above that the scoring procedure for Section C was workable. In order to justify this claim it was necessary that the scripts should be scored by a group of judges, and that the criteria for scoring the scripts should be indicated as clearly and as unambiguously as possible. A comparison of the scores given by each of the judges provided a measure of the reliability of the scoring procedure. If the variance between the different judges was considerable it would be clear that the marking scheme would need to be revised; if however, a strong measure of agreement was obtained, the marking scheme could be retained. Three people were invited, in addition to the researcher, to act as judges. 10% of the scripts used in the pilot study were extracted at random, and each of the three judges marked the same scripts, but recorded the scores on separate sheets. The criteria for marking the scripts was spelt out in detail and examples were given for the guidance of the judges. The details of this information are given below. Children's answers (and spellings) are used as examples.  

Question 1.  

Do you think there is a God when there is so much suffering in the world?  

The aim of this question is to elicit information about the pupil's awareness of the problem to belief in God posed by the existence of suffering, evil etc. in the world. Judges are asked to evaluate the answers and place them on a four point scale according to the following criteria:-  

0 points A nil response to the question, or an answer which is qualitatively negligible.  

1 point An answer which is consistent with the answer given to the first part of the question, but which lacks specific reference to the "suffering/belief" problem.  

Example: Answer to part (i) "Not sure."  

Answer to part (ii) "Some people believe  

that prayers come true wen some don't."

Note: This answer is consistent with the response given to part (i) but the difficulty posed to belief in God by the problem of suffering is not dealt with.

2 points An answer which is consistent etc., (see notes for a score of one point) but which also attempts to deal with the problem: either from the point of view of belief, or from the point of view of suffering - but which does not get to grips with the central problem - i.e. that for some people suffering etc. is a reason against belief in God.

Example: Answer to part (i) "Yes"
Answer to part (ii) "Because there is a saying that God cannot be with heavy one at once, when there is suffering in the world. God can only help them who he is watching over."

3 points An answer which deals with both suffering and belief in God.

Example: Answer to part (i) "I: o"
Answer to part (ii) "If there was a god he would stop the suffering by making people better or just by killing them straight away."

Question 2.

How important is religion for you?
The aim of this question is to elicit information about the pupil's perception of religion in relation to his value/belief system. Judges are asked to evaluate the answers on a four-point scale according to the following criteria:-

0 points A nil response or an answer which is qualitatively negligible.

1 point An answer which is consistent with the response to the first part of the question but which lacks any detailed discussion.

Example: Answer to part (i) "Not important."
Answer to part (ii) "I do not believe in God because he does not help us in our work, and he does not give us enough work."

Further Example: Answer to part (i) "Important."
Answer to part (ii) "It is important to me because I am a Christian and go to
church a bit and to me religion is important."

2 points An answer which evidences some thought about the significance of religion, and which attempts to discuss the question.

Example: Answer to part (i) "Important."

Answer to part (ii) "I think everyone needs someone to turn to at sometime, someone to tell their troubles to and confide in, so when you're troubled you go to church and tell your troubles to God."

3 points An answer which shows that the subject has thought about the matter of religion in some depth - i.e. an answer which displays a measure of insight and maturity.

Example: Answer to part (i) "Important."

Answer to part (ii) "Any religion makes men good, if they are true follower of their own god. Religion makes men know the difference between wrong and right, it pulls them out of their problems, it humbles them and also it gives them hope. Without religion there would be no disgrace in doing wrong. The world would be in a poor state without religion."

Question 3.
Do things we learn in Science at school disprove what we learn about religion?

The aim of this question is to elicit information about the pupil's understanding of the relation between science and religion, and the extent to which he recognises that scientific questions and religious questions are different questions, i.e. that the explanations offered by science are different but not necessarily contradictory to the explanations offered by religion. Judges are asked to evaluate the answers on a four point scale according to the following criteria:

0 points A nil response or an answer which is qualitatively negligible.

1 point An answer which makes some attempt at providing a reason (in support of the response given to the first part of the question) i.e. of a perceived
difference between science and religion by giving an example or examples.

**Example:** Answer to part (i) "Sometimes."

Answer to part (ii) "From facts scientists give us, sometimes we think differently. The scientists think that Jesus was born in October and not in December. They do not believe that Jesus actually walked on the water yet they have no proof."

*2 points* An answer which shows some recognition that science and religion give different kinds of answers etc., that science does not "disprove" religion etc.

**Note:** An answer which gives evidence of a personal viewpoint - i.e. which expresses a view either in favour of science or in favour of religion, or a view which suggests that the conflict is unresolvable, that it is a matter of opinion, etc.

**Example:** Answer to part (i) "Sometimes."

Answer to part (ii) "The beginning of the world for example, God creating the stars, sun, moon, land, animals, birds and fish when the world started in "Science's" opinion that there were dinosaurs and reptiles etc. I tend to agree with the latter because it sounds more likely. Yet this doesn't disprove what we learn about religion. It is for us to decide which opinion or opinions are correct.

Teachers (on the whole) sometimes preach religion or talk of science as being fact but I don't think they mean to. They know they can't lay down the law which is right - nobody can."

**Further Example:** Answer to part (i) "Sometimes."

Answer to part (ii) "In science we learn how the world was formed: - By God, by gas and by an explosion of a planet. It is hard to say which one is TRUE. How man was formed is another example: - God made him. He came from the ape. Again it is hard to say which is true. Did God build the planets or were they made by gases in space or were they there before the beginning of life in the world. Science and Religion do battle against each other to prove which the above examples are true and false."
3 points An answer which clearly recognises that scientific and religious questions, and answers, are different and complementary rather than contradictory. i.e. that science and religion are different forms of knowledge. Example: "Science and religion look at the world from different view-points. Take science for example, it looks at how the world was made, by gases and explosions of suns, and where did they come from. But religion is about God and gods and church and prayers. I think the Bible's only a book to help man through life, encouraging him to do right. Science sometimes makes it so that religion is wrong and it is not and science has nothing to do with religion science is not the same as religion."

(2) Report of Evaluation of 10% Scripts by Three Judges and by the researcher.

Eleven scripts were selected at random from the pilot study, namely, scripts numbered 7, 17, 27, 37, 47, 57, 67, 77, 87, 97, and 107. These were given in turn to three people - a housewife and former Religious Education teacher, an English teacher, and an industrial chemist. In the tabulation overleaf they are described consecutively as Judge 2, 3 and 4. The scores given by the researcher are indicated in the column for Judge 1. The eleven answer papers were first marked by the researcher and the scores recorded on a separate sheet of paper. The answer papers were then given in turn to the three judges who also recorded their scores on separate sheets of paper. No judge was aware of the scores given by the other judges. The only instruction given to the judges was to read the scoring scheme before marking the answer papers. The suggestion was made, however, to judges two and four, that they might find it easier to mark the questions in turn - i.e. to mark all eleven responses to question 1, then all eleven responses to question 2, and finally all eleven responses to question 3. This suggestion was not made to Judge three and it is interesting to note that there is slightly greater variance between his scores and those of the other judges. The percentage agreement between the judges is shown in Table 19.
### TABLE 19

**RELIGIOUS THINKING TEST -**

**OBJECTIVITY OF SCORING SCHEME**

PERCENTAGE AGREEMENT BETWEEN JUDGES

<table>
<thead>
<tr>
<th>Judge 1</th>
<th>Judge 2</th>
<th>Judge 3</th>
<th>Judge 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>R.E. teacher</td>
<td>76%</td>
<td>64%</td>
<td>70%</td>
</tr>
<tr>
<td>Eng. teacher</td>
<td>*</td>
<td>46%</td>
<td>70%</td>
</tr>
<tr>
<td>Ind. chemist</td>
<td>*</td>
<td>*</td>
<td>70%</td>
</tr>
</tbody>
</table>

The details of the Judges' scoring are given in Table 20.

### TABLE 20

**RELIGIOUS THINKING TEST -**

**OBJECTIVITY OF SCORING SCHEME FOR SECTION C.**

MARKS AWARDED BY FOUR JUDGES - ELEVEN SCRIPTS.

<table>
<thead>
<tr>
<th>Script no.</th>
<th>Question One</th>
<th>Question Two</th>
<th>Question Three</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Judges 1</td>
<td>Judges 2</td>
<td>Judges 3</td>
</tr>
<tr>
<td>7</td>
<td>3 3 3 3</td>
<td>2 2 2 1</td>
<td>1 0 1 0</td>
</tr>
<tr>
<td>17</td>
<td>2 2 1 2</td>
<td>1 0 1 1</td>
<td>0 0 1 0</td>
</tr>
<tr>
<td>27</td>
<td>3 3 3 3</td>
<td>1 2 2 2</td>
<td>1 0 1 1</td>
</tr>
<tr>
<td>37</td>
<td>2 2 1 1</td>
<td>1 0 1 1</td>
<td>0 0 1 0</td>
</tr>
<tr>
<td>47</td>
<td>2 2 3 3</td>
<td>3 3 3 3</td>
<td>2 2 2 2</td>
</tr>
<tr>
<td>57</td>
<td>3 3 3 3</td>
<td>1 0 1 1</td>
<td>0 0 1 0</td>
</tr>
<tr>
<td>67</td>
<td>2 2 1 2</td>
<td>1 1 1 1</td>
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</tr>
<tr>
<td>77</td>
<td>1 0 1 0</td>
<td>1 1 1 1</td>
<td>0 0 1 0</td>
</tr>
<tr>
<td>87</td>
<td>3 3 3 3</td>
<td>3 3 2 2</td>
<td>1 1 2 2</td>
</tr>
<tr>
<td>97</td>
<td>2 3 2 3</td>
<td>0 0 0 0</td>
<td>1 1 2 2</td>
</tr>
<tr>
<td>107</td>
<td>3 3 3 3</td>
<td>1 1 2 1</td>
<td>0 0 0 0</td>
</tr>
</tbody>
</table>

It is clear from this result that the claim that the scoring procedure for Section C was workable, had been substantiated. In view of the close measure of agreement between the judges' scores, it was decided to accept the marking scheme as sufficiently reliable for use in the main experiment.
CHAPTER VIII
THE DEVELOPMENT OF MATERIAL FOR USE IN
FOLLOW-UP INTERVIEWS WITH INDIVIDUAL CHILDREN

1. Introduction.
This chapter describes the selection of stimulus material for use in follow-up interviews with individual children. A brief account is given of the purpose of the interviews, of three extracts chosen as stimulus material, and of the questions devised for use in the interviews. A report of a small pilot study is also given.¹

2. The purpose of the Interview Programme
In order to structure the interview procedure coherently, and in order to devise an appropriate and objective method for scoring the children's responses, it was necessary to state as unambiguously as possible the purpose of the interview programme, namely, what sort of additional information regarding children's religious thinking it was intended that the interviews would provide.

The purpose of the interview was (a) to fill out the quantitative results of the group testing with qualitative, descriptive information derived from conversation with individual children. (The group testing procedure would provide as it were, the framework of the canvas; the individual interviews would provide the colours and details with which to bring the picture to life.)² (b) to provide additional evidence of the validity of the test instruments, (c) to provide quantified evidence of the adolescent's

¹ Note: The full details of the Interview Schedules, the method devised for scoring the responses, and the reliability of the scoring procedure, is given below in Part Three, Chapter XII. The interview schedule, however, was devised as part of the Pilot Study described in this chapter.

² Note: Brian Gates takes a similar view in his study but employs a different metaphor. Hesitant regarding the value of statistical techniques, and arguing for the worth of semi-clinical oral interviews he writes:
"... it was fully expected that quantified conclusions that might emerge would be of a limited skeletal nature. It would be the subject's individual construction of the world which would fill out that sketchy frame into a living totality all the more worthy of comparison with others."

perception of the usefulness of a religious view of the world, and of the relevance of religious education in the school curriculum.

3. Three Extracts for Use in the Interview.

Materials for use in the interview were selected from resource material intended for use in Secondary Schools. Three extracts were selected: the first concerned attitudes to old people, the second the nature of man, and the third the problem of suffering.

(1) Attitudes to Old People

The first extract describes how the bodies of two old people were found, six months after his death in the case of the man, and four years after her death in the case of the woman. The attitudes of two young people to the loneliness of old age is described and a report is given of a group of boys engaging in community service to the elderly. The story raises quickly, and without ambiguity, the question of attitudes of young people to old people. Three specific attitudes are indicated: boredom, indifference and compassion. It was anticipated that even the least able pupil would experience little difficulty in recognising the moral problem to which the first story points. In the interview schedule devised for this extract the questions were simple and direct:

1. Three people are described in the story; what have they in common?
2. What did the 15 year old feel about all this?
3. Do you agree? Why?
4. What did the 17 year old feel about all this?
5. Do you agree? Why?
6. What do you think about what the group of 15 year old boys did?
7. Do you think that you yourself ought to help old people? Why?
8. Have you given any help to old people in the past month? What help did you give?

Extract 2: ibid., page 883. c.f. page 265.
Extract 3: Ed. Ronald Dingwall (1972) - Assembly Workshop, Darton, Longman and Todd, Section 9.7 c.f. page 266.
The second piece of material is an extract from Nikos Kazantzakis: *Zorba the Greek*. Bailey's editorial comment reads:

"Many things with which Christianity is concerned are discussed in modern plays, books, poetry and songs. Nikos Kazantzakis in his book *Zorba the Greek* was trying to say something basic about the nature of man. The meaning of the following extract from that book, which is a parable of the origin of man's evil ways, is essentially the same as that contained in the story of Adam and Eve in the Garden of Eden, although the setting and the view of God are different."

Several comments on the nature of man are woven into the story. It suggests that man was created by God in seven days, that man turned out differently from what God had expected and that God had made a mess of things, that God thought man was a pig, that man was revengeful and ready to kill, and that man showed no respect for God. Although there is a clear parallel with the Genesis story, the suggestion is made that the greed and selfishness of human nature is not the result of man's disobedience but is the consequence of God's mistake, and this is clearly a contrasting view to that of Genesis. The theological and philosophical questions implicit in this parable, therefore, are: (i) How was man created? By God? (ii) Is man's greedy nature to be explained as the consequence of a great divine mistake? (iii) Is a religious explanation required anyway? The aim of the interview schedule devised for this extract was to explore this material with the pupil and thus to obtain information regarding his perceptions of the religious content of the parable. The full details of the Interview Schedule are given as part of the report of the Interview Programme in the main experiment, but examples of the questions used are as follows:


5. Bailey, op. cit.

6. Note: This was considered to be the appropriate context for the full details, in order to facilitate comprehension of the report of the Interviewing Programme.
1. Did God like what he had made? Was God pleased with man when he had made him?
2. What did God think he had made?
3. What sort of animal is a pig? How would you describe a pig?
4. Do you think man ought to have respected God? Why?
5. (Here are two stories about the creation of man) Which story is true - the Bible or this one? Why?
6. What do you think of (Zorba's) description of God?
7. What do you think God is like? How would you describe him?

(3) Suffering and God

The source of this extract entitled "The Long Silence" is unknown but was taken from Dingwall's (1972) Assembly Workshop. The parable is about the problem of human suffering and the justice of God. It lists specific instances of human suffering, namely, Jews in Nazi concentration camps, negro slavery, illegitimacy, Indian untouchability, pain and deformity from arthritis, Hiroshima and Siberia. It proposes that "God should suffer too" but makes the point by implication that God has suffered these injustices already in the person of Jesus Christ. Although Christ is not mentioned explicitly, the reader is expected to infer this from the sentence that "suddenly all knew, God had already served his sentence." The implication of God sharing the suffering of man in the person of Christ (the Christian theodicy) is unequivocally clear. The aim of the interview schedule devised for this extract was to explore the connection between religious faith and suffering in the perception and experience of the adolescent. viz., (a) Does the pupil perceive suffering to be a problem for religious faith - i.e. does it count as a reason against belief? (b) Does he see religious faith as a way of overcoming suffering? (c) Has he personal experience of suffering? (d) Does he recognise the implicit reference to Christ in the parable? The full details of the Interview Schedule are given in the Report of the main experiment but examples of the questions used are as follows:

7. Dingwall, op. cit.
1. What was the complaint which "hundreds of groups" had against God?
2. What sentence did they impose on (give to) God?
3. Do you think that if you were seriously ill, you would believe in God more or less?
4. Some people say, because of all the suffering, they cannot believe in God. Is that your belief?


(1) A pilot study of the interview schedule was made at Y High School, Doncaster on November 22nd, 30th and December 1st, 1977. The following children, of average ability, were interviewed:

<table>
<thead>
<tr>
<th>Name</th>
<th>Sex</th>
<th>Age</th>
<th>Year</th>
<th>Date Interviewed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Julie</td>
<td>Girl, 15;3</td>
<td>5</td>
<td>22 Nov 77</td>
<td></td>
</tr>
<tr>
<td>Trevor</td>
<td>Boy, 14;7</td>
<td>4</td>
<td>22 Nov 77</td>
<td></td>
</tr>
<tr>
<td>Ann</td>
<td>Girl, 14;0</td>
<td>3</td>
<td>22 Nov 77</td>
<td></td>
</tr>
<tr>
<td>Gillian</td>
<td>Girl, 13;1</td>
<td>2</td>
<td>1 Dec 77</td>
<td></td>
</tr>
<tr>
<td>Elaine</td>
<td>Girl, 11;6</td>
<td>1</td>
<td>30 Nov 77</td>
<td></td>
</tr>
<tr>
<td>Debnath</td>
<td>Boy, 11;7</td>
<td>1</td>
<td>30 Nov 77</td>
<td></td>
</tr>
</tbody>
</table>

Extracts 1, 2 and 3 were used in their original form during the interviews with the three older pupils. The vocabulary and style of extracts 2 and 3 were slightly modified for the interviews with the younger children. Also, when interviewing the younger children, a tape-recording of the extracts was used in order to facilitate comprehension. All the interviews were tape-recorded. After analysing the interviews on November 22nd it was considered that the responses to the first extract were disappointing, and that the best use of the thirty minutes allocated for each interview was to concentrate on a discussion of extracts two and three. Accordingly, the interviews with the three younger children omitted the use of the first extract.

(2) Report of Extract One - Loneliness

(i) Comprehension
The details of the story were comprehended without difficulty by all the three children - Julie, Trevor and Ann.
(ii) Attitudes to Old People

Julie (15 years) emerged as possessing the most positive attitude. (I like to help because they are probably lonely. I love helping old people.)

Trevor (14 years) was more discriminating in his comments. He found his grandfather "interesting" and shared kite flying and woodwork activities with him. But he recognised that some old people are boring and some "get narky because they know it all."

Ann (14 years) agreed with the attitude of the 17 year old reported in the extract. She recognised that old people "can be happy and enjoy things at that age." She believed that we ought to help on the grounds that "when we are old we will need help too."

(iii) Perception of the needs of Old People

Two pupils were realistic in their perception of old people and their needs. For example, Julie recognised that one purpose of giving help was "to help them to cope," and Trevor observed that old people "ought to keep in touch - ought to get out." Ann, on the other hand, appeared less precise in her observations. She remarked that old people were "quite nice" and "interesting". When discussing the question of accepting the inevitability of old age, Ann perceived the problem in terms of herself and remarked that "she was not bothered about growing old."

(iv) General

(a) Although there were clear differences in their perceptions and in their responses, it was seen that all three pupils expressed a compassionate attitude to old people.

(b) The extract was understood without difficulty. On the other hand, its lack of complexity may have limited the level of questions and presumably the quality of the responses.

(c) An unexpected finding was the agreement expressed with the point of view of the 17 year old. (Old age! You've got to accept it. It's the same with a bike. When your rods start knocking,
you've had it! It is clear from the context that the author intends the reader to respond with disapproval. The three children interviewed, however regarded the statement as realistic. Differences emerged with regard to the question of whether the realism implied indifference or a lack of compassion. Julie thought that the 17 year old "probably cared." Trevor reflected that the 17 year old was "self-interested."

(d) The use of this extract provided a useful introduction to a discussion on the question of caring/compassion etc. It thus serves the purpose for which it is intended. However, when comparing this material with that obtained from the use of extracts 2 and 3, it was decided that this extract should not be used in the final interviewing programme.

(3) Report of Extract Two - The Creation of Man

(i) Comprehension
Clear differences emerged in the children's ability to comprehend and report the basic details of the story. Julie (15:3) had no difficulty. Trevor (14:7) and Ann (14:0) were much less sure of the answers and needed considerable prompting to enable them to focus upon the concrete details of the story. Gillian (13:1), Elaine (11:6) and Debnath (11:7) showed little difficulty. However, Elaine and Debnath both described a pig (what sort of animal is a pig? How would you describe a pig?) in terms of its physical details - e.g. pink, four-legged, fat etc., and only after prompting suggested that a pig might be greedy, dirty, messy, "horrible" etc. Ann (was it her farm background?) described a pig as an "outside animal."

(ii) Perception of Religious Symbolism
Two ideas were explored in the questioning - (a) the extent to which contemporary man is like a pig, shows aggression, desires to kill etc., and (b) the question of man's attitude to God - did he show him "respect" etc. Several examples were provided by the children, but the translation from the story to the present day had to be indicated, in the first instance, by the interviewer.
Examples given of the man/pig analogy were: miners, land, football hooligans, war (Julie); money - "but he is not greedy for food like the old days" (Trevor); lots of rubbish not picked up (Ann); strikes are stupid (Gillian). The two youngest children, however, refused to accept the analogy. Elaine said: "A pig is an animal. We are totally different from them." Debnath said: "Man is not like a pig." Examples of man's aggressive nature included: Ireland (Julie); man needs a dagger to get food (Trevor); some people are evil and destroying things (Ann); man needs to be under control (Gillian); and - man had a dagger to kill God for making him, and because God laughed at him (Ann). Ann returned here to concentrating on the details of the story. Like Ann, Elaine and Debnath had difficulty in handling this concept. Elaine suggested: people might have a dagger in their belt in places like America. Debnath said: some try to get you today - mental and murderers. Examples of respect for God today included praying and church-going (Julie); church-going, helping people (Trevor); church-going, school assemblies (Ann); church-going and praying (Elaine) praying (Debnath). Examples of man not respecting God were given by Julie (fighting) and by Gillian (lying and breaking promises).

(iii) Image of God
The question of the child's image of God was introduced through a line of questioning about whether God created man etc., and whether Zorba's description of God was a fitting one. Julie disliked Zorba's description of God (God wouldn't kick) but described God as 'kind, gentle, tall, finely dressed, beard, always around like a man - he must be somewhere around.' Trevor indicated a position of unbelief in God. He was not sure whether God created man. And in response to an earlier question (2.11) he said; "We don't know what God is. Nobody has seen him." Ann was not altogether satisfied with Zorba's description. She thought God was "nice." "God is not down in the dumps. He is cheerful, forgiving, helpful. People in church say so." Gillian indicated dissatisfaction with Zorba's description, but described God as "having a long, grey beard, oldish, fat and with a kind face." She
thought Zorba's description was inadequate "because God said, What a devil of a God I am, and God is not a devil. God is not like an old screech owl." Elaine thought Zorba's description was "not as we imagine him." Her image was: "God is all over. He can't just be one man. I imagine him to be a brain and a heart - i.e. brain to create animals and people and a heart to protect us."

Debnath, the son of an Indian doctor, and a Hindu, was not sure whether God created man. "I believe half of it - gorillas got into us. I believe a bit but I'm not sure that God created man." He found the question "Is there a God?" amusing - I don't believe in God because why can't God show his face, and there isn't any evidence that there is a God." Pressed on this point, he indicated that "strange things happened" and that this might count as evidence for there being a God.

(iv) The Zorba Story compared with the Bible Story of Creation.

The aim of the questions was to obtain information about the child's attitude to the Bible in relation to the possibility of religious insight being available in non-biblical stories. Three of the children indicated that they thought the Bible was true. Gillian appeared to take a fundamentalist view (The Bible is true because the Bible is always right) Ann and Elaine seemed less sure about the grounds for believing the Bible to be true. "Zorba's story is taken from the Bible and is similar" (Ann), and "The Bible is true because people when they lived early they made the Bible - so they know better. A true story is a real story - one that is not made up." (Elaine). Julie and Trevor, the older children, were more ready to make the comparison. "Zorba was too far fetched. The Bible is more realistic" (Julie). On the other hand, Trevor suggested "Zorba is the true story because it is more about what happens today."

(v) General

With the possible exception of Julie and Trevor the children showed little evidence of formal operational thinking in relation to the religious concepts under discussion. The image of God given by Julie (15:3),
Ann, (14.0), and Gillian (13:1) was childish and anthropomorphic. Debnath (11:7) although a Hindu and a declared unbeliever, and although quick to respond to the details of the story, was unable to appreciate the religious symbolism of the story. Elaine (11:6) produced responses of varying quality. She found difficulty in recognising the possibility of religious symbolism in the story, and when questioned about the symbolism tended to reply in terms of concrete details - e.g. "People might have a dagger in places like America." Her image of God was the most interesting and unusual of her responses (I imagine him to be a brain and a heart.) One may see here a sophisticated abstract concept of God, or possibly it is evidence of a vivid imagination nurtured on space fiction and the adventures of "Doctor Who" on television. Trevor (14:7) produced the most mature response; "We don't know what God is; nobody has seen him." Given the ability range and ages of the children the evidence obtained here is what is to be expected. Nonetheless, it is clear that this extract is a useful tool for stimulating a discussion on religious symbols, and for obtaining information regarding the children's religious worlds.


(i) Comprehension

The children had varying degrees of difficulty in understanding the details of the story. The oldest girl (Julie) had the least difficulty in understanding the parable, but needed prompting to focus on the point that God permitted suffering etc. The other children needed additional prompting in order to grasp the central details of the story.

(ii) Religious Symbolism

The implicit reference to Jesus Christ in the latter part of the parable was recognised by one pupil only, Trevor. The word "Saviour" was introduced into the boy's response without any prompting from the interviewer. Various explanations of the meaning of the parable were put forward. Julie (15:3) succeeded in getting to the heart of the problem with the following perceptive comment: "God has already been where the suffering is.
He has been around when all the pain has been there. "Trevor (14:7) also showed that he could cope with the abstract problem raised by the parable. His explanation was (a) "don't say anything against God, and (b) all suffering was taken away by Jesus on the Cross — but I don't believe this." The other four children proposed solutions which indicated their inability to move beyond the details of the parable to a discussion of the abstract questions about suffering and God, which it raised. Ann (14:0) thought "God has gone through enough — in the judgement." Gillian (13:1) recognised "God already knew about suffering" but could not amplify this statement. Elaine (11:6) suggested: "God has brought the world to an end," and "people have all been hurt." And then as an after-thought she added: "God had tried to make men believe in him." Debnath (11:7) suggested "God has had a sentence and knows about suffering — he has listened to all the leaders."

(iii) The Problem of Suffering

The use of this parable proved to be a valuable discriminator. It was clear that the older children, Julie and Trevor, were able to understand the problem and were able to reflect intelligently upon it. The younger children, however, had the greatest difficulty in discussing the point of the story, even though they had grasped the main details with the help and prompting of the interviewer. Julie (15:3) recognised both the central problem raised by the parable and the solution which it proposes. Her own view was that "people and not God are to be blamed." Some of her ideas, however, were less mature. For example, she thought that the seriously ill would be more likely to believe in God on the grounds that they would be looked after in heaven. Trevor (14:7) also thought that people who were seriously ill would be likely to believe in God more on the grounds that "they would think about Jesus." His view about suffering and belief in God is summarized in three points:— (a) a lot of people don't believe, (b) they would believe if they were ill, (c) they probably ought to believe all the time but don't. This reflected his own view of the matter and he recognised
its inherent difficulties. However, he was consistent in maintaining that he didn't believe in God but that if he were seriously ill he probably would believe. These comments reveal a thoughtful and perceptive view of the nature of religious belief. A less mature viewpoint which he expressed was "God cared for my great grand-dad because he was still alive after the Great War." The other children were less sure about the meaning and point of the parable. Gillian (13:1) recognised the theme of suffering, but could not see the problem in relation to belief in God. Elaine (11:6) proposed that "God had already suffered by watching people suffer." Debnath (11:7) was the realist - "I don't think God can do anything when you're ill except medicine."

(iv) General
Of all the three extracts used in the interviews the third extract was the most difficult. Nonetheless, this parable provides a sound basis for raising with the children the issue of suffering. As has been indicated above, the older children gained the greater success in coping with the questions adequately, and this was to be expected. It must be added, however, that although difficult to comprehend, there is much in this parable which interested the children and which provided a basis for discussion.

5. Conclusion
For reasons already indicated, the first extract will be omitted from the final programme of interviews. The report given in this chapter has demonstrated that the material in extracts two and three, together with the devised interview schedules, provide a valuable and workable structure for achieving the aims of the interview programme.
CHAPTER IX
THE DESIGN OF THE EXPERIMENT AND
THE SELECTION OF TEST INSTRUMENTS

1. Introduction
In Part Two of this thesis a description has been given of the development of test instruments to use in the testing of a sample of secondary school children in a research experiment. In this final chapter of Part Two, the selection of additional test instruments is reported and the total test battery which was used in the experiment is indicated. Hypotheses to be tested by statistical procedures, and the statistical analyses to be used, are also indicated. The justification for the choice of the particular statistical analyses which were selected will be given when reporting the results; the purpose of this chapter is not to discuss the broad aims of the research, but to describe those aspects of the research design which were measured by statistical procedures. In providing this account of the statistical design of the experiment a link is established between Part Two and Part Three of the thesis.

2. The Selection of Additional Test Instruments.

(1) Before proceeding to organise the main programme of tests in schools, it was necessary to decide which test materials would be used in addition to those developed in this research. Three additional test instruments were selected. It was decided to use the AH4 test, part one, to obtain a measure of general intelligence, and to use the two religious attitude scales developed by Hyde.

(2) Consideration was given to the possibility of using Shayer tests, in addition to the AH4 test, to provide a measure of general intelligence. Having looked at the Shayer tests it was clear that it would be impracticable to use them in the school situation since they would demand preparation time and training on the part of the staff. Research\(^1\) shows that AH4 correlates highly with Shayer-

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type test results, and, therefore, it would not have been of much additional value to have included the Shayer test in the test battery.

(3) It was assumed that the test for religious thinking developed in the research would provide a measure which was strongly correlated with general intelligence. By including a test of general intelligence in the test battery it was possible to ascertain the degree of correlation which existed between general intelligence and the religious thinking test. The AH4 test was selected on the grounds that "it is designed as a group test of general intelligence, for use with a cross section of the adult population. It is suitable also for selected groups whose level of intelligence is below average and for older children."² Its reliability is well established and after a short training session it is easy to administer. Moreover,

"The aim in AH4 is to incorporate as many different biases and principles as is consistent with a reasonably short test and with the inclusion of preliminary examples which are illustrative of all the principles found in the test proper. Part I consists of 65 questions which have a verbal or numerical bias. Six types of principle are included: directions (some of which are primarily verbal, some primarily numerical), verbal opposites, numerical series, verbal analogies, simple arithmetical computations and synonyms. The directions, series and computations require 'creative answer' solutions .. "³

The test appeared admirably suitable for the present research and it was decided to include it in the test battery.

(4) The Religious Attitude Questionnaires developed by Hyde were selected on the grounds that they were very well suited to the needs of the research in that they would provide a measure of attitude to "conventional Christianity."⁴

3. Ibid.
4. Note: c.f. my discussion on this point, Part One, I.
By scoring the questionnaires according to the weighting system used by Hyde, general comparisons with his findings were made.  

3. **The Test Battery**

   (1) The following test instruments were used in the main experiment, that is, in the programme of tests given to approximately 2,000 Secondary School pupils:

   - Religious Attitude Questionnaire (Hyde) Part 1
   - Religious Attitude Questionnaire (Hyde) Part 2
   - Attitude Questionnaire (Mark) Part 1
   - Attitude Questionnaire (Mark) Part 2
   - Teenage Interests Questionnaire
   - Religious Thinking Test
   - AH4 Test of General Intelligence, Part 1

   (2) It is to be noted that when using the Teenage Interests Questionnaire two measures for religious behaviour were extracted and shown as separate scores. These were for (a) overt religious behaviour, and (b) helpfulness.

4. **Hypotheses**

The following general hypotheses were examined:

   (1) The general aim was to discover to what extent the measures for general intelligence, religious attitude, religious behaviour and religious thinking functioned independently. It was expected that:

   **H.1.** There will be positive and significant correlations between scores obtained on the general intelligence measures and scores obtained on the religious thinking test.

   **H.2.** There will be positive and significant correlations between scores obtained on the religious attitude and religious behaviour measures, and scores obtained on the religious thinking test.

5. **Note:** Permission to use the Hyde questionnaires was given to T. J. Mark in a letter from Dr. Hyde dated 7.11.77.

6. c.f. Appendix 23  
7. c.f. Appendix 24  
8. c.f. Appendix 11  
10. c.f. Appendix 16
11. c.f. Appendix 21
12. c.f. Appendix 25
(2) A second aim was to investigate the various measures with regard to the variables of sex, school and year, that is:

**H.3.** There will be no significant differences between boys and girls on test performance.

**H.4.** There will be no significant differences between schools on test performance.

**H.5.** There will be no significant differences between age levels in respect of test performance.

5. **Statistical Design of the Experiment.**

The hypotheses outlined in the previous Section were tested using a variety of statistical techniques. A (Pearson Product Moment) correlation coefficient matrix was constructed to show the inter-relationships between test scores. These were analysed further through factor analyses and analyses of variance. The broader purpose of the research design and the choice of statistical procedures will be discussed further in the report of the results of the experiment. The test instruments were given to a sample of approximately 2,000 pupils in two secondary schools. The selection of the schools and the administration of the test programme is described in Part Three of this thesis.

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13. c.f. Part Three, Chapter XI.
PART THREE

RELIGIOUS ATTITUDE, RELIGIOUS BEHAVIOUR AND
RELIGIOUS COGNITION IN TWO COMPREHENSIVE SCHOOLS

Part Three describes the setting up of an empirical investigation into the religious attitudes, religious behaviour and religious thinking of two thousand adolescent children in two Comprehensive Schools in South Yorkshire. An account is given of the arrangements for the test procedure and a report is given of the statistical analysis of the results. A description of a programme of follow-up interviews is also included.
CHAPTER X.

SELECTION OF SCHOOLS AND ADMINISTRATION OF

THE TEST PROGRAMME

1. Choice of Schools.

It was decided to administer the tests to approximately two thousand pupils and it was necessary to find suitable schools within reasonable travelling distance of Doncaster. Permission was obtained from the Director of Education, Rotherham Education Department, in South Yorkshire to visit five schools in the area, and arrangements were concluded to conduct the research programme early in the Spring Term 1978 in two comprehensive schools situated approximately ten miles apart. The Heads of the schools showed considerable interest in the aims of the research and were keen for their schools to co-operate. For convenience the schools are referred to in this report as "School A" and "School B."

The choice of these schools appeared ideal. They were of the same size (School A on the roll January 1978, 1,484; school B on the roll January 1978, 1,450); they had been founded in the early 1960s from amalgamations between grammar and secondary modern schools; they were situated on the borders of Rotherham and Sheffield and contained populations of children drawn largely from families in the mining, industrial and rural communities common to this part of South Yorkshire. They were situated, moreover, at sufficient distance apart to be regarded as belonging to distinct and separate communities.

2. Arrangements for the Test Programme.

(1) It was decided that the test programme would proceed in four stages:-

Stage 1. - Religious Attitude Questionnaire (Hyde) Part 1.

Attitude Questionnaire (Mark) Part 1.

Teenage Interests Questionnaire.

Stage 2. - Religious Attitude Questionnaire (Hyde) Part 2.

Attitude Questionnaire (Mark) Part 2.

Religious Thinking Test.

Stage 3. - The AH4 Test.

Stage 4. - Follow-up Interviews.
School A preferred to administer Stages 1 and 2 during the normal Religious Education timetable; School B, however agreed to administer Stages 1 and 2 on January 16th and 18th as part of their normal examination timetable. It was necessary to co-operate with the schools' arrangements as much as possible, and although these differences in administrative procedure were not desirable, in the circumstances no alternative was available. School A, therefore, administered Stages 1 and 2 during the period January 16th to 26th.

Arrangements for Stage 3 also differed. At School A the test was administered by the Religious Education staff, after the test had been administered by the researcher in a demonstration training session, during the period February 21st to March 23rd. In School B, however, the test was administered almost entirely by the researcher himself, during the period January 24th to February 3rd. Both schools were visited during the last fortnight of term to enable pupils, who due to absence had been unable to complete the tests, to write those tests which they had missed.

Stage 4 was conducted firstly at School B, and secondly at School A. Interviews were recorded at School B during the period February 3rd to February 10th and at School A during the period February 22nd to March 8th.

3. Details of the Test Programme in the Two Schools.

(1) School A.

(i) Stages 1 and 2 were administered by the R.E. staff but mainly by two teachers who became well-known to the researcher. It was possible for the researcher to visit only a few classes during the test programme - but he was assured that the tests for all classes had been given in the "relaxed but examination-like atmosphere" that had been requested. The test papers were delivered to the school in packages ready for immediate use in the classroom, together with instructions for teachers and "time schedule forms." The time schedule form invited the teachers to provide their own comments on the test situation, as well as giving a record of the number of pupils present and the time taken to complete the questionnaires.
(ii) The teachers' reports indicated that some minor difficulties had been encountered during the administration of Stages 1 and 2. The instruction on the Teenage Interests Questionnaire had caused some difficulty for some pupils (c.f. Page 1 of Teenage Interests Questionnaire, Question 2, "If your answer is yes, answer the following . . .") Vocabulary had also caused some difficulties, for example, kill-joys, chores, terrorists, uniformed organisation and the statement "religion is an essential part of man's being."

One teacher commented;

"Religious Thinking Test, Section C, Question 3 - totally beyond first years without any explanation from me."

Another teacher commented;

"A common question - What is incarnation? - advised - I couldn't really answer that without giving correct answer away."

Another comment from a teacher in charge of a second year group indicated;

"The children took the test very seriously."

And the same teacher when in charge of a third year class, reported;

"level of concentration was good - relaxed exam. situation."

Unlike School B, School A, provided a sample of fifth year children, and it is to be observed that they gave a mixed response to the tests. As was the case in respect of younger children, many pupils experienced difficulty with the Science and Religion questions on the Religious Thinking test. Some pupils, however, refused to write the tests, and many returned spoiled papers with their names erased. It was reported that some pupils felt that "the questions were too personal."

Most of the spoiled papers were returned by Form 5RR; The teacher reported that some got tired (or bored) by the time they got to Question 6, Teenage Interests Questionnaire, and couldn't be bothered to apply themselves to it properly. One girl in this class had endorsed the Religious Attitude Questionnaire Part I with the words, "I strongly disagree with the whole matter" - an eloquent testimony to dissent. Another
boy in the same class indicated that his name was Fred Bloggs, his age was 99 and his school was Westminster Abbey. These papers were excluded. In consequence only eight sets of data were obtained from this class. (c.f. Appendix 30.) Other fifth year reports, however, were more positive. The teacher supervising Form 5SS wrote:

"The test was taken seriously; all were totally absorbed."

The reports from 5S were also encouraging. For Stage 1 the teacher reported:

"Totally absorbed by it!"

For Stage 2 for the same form, but reported by another teacher the report indicated,

"Very good response - serious attitude, nice atmosphere."

(iii) Several remedial children, mainly in Year 1 were unable to complete the questionnaires within the one hour period provided. The names of these pupils were reported on the Time Schedule Forms and in most cases were excluded from the final set of data.

(2) School B.

(i) As indicated above, Stages 1 and 2 were administered as part of the school examination programme. The test papers were delivered in packages ready for distribution to the teachers in charge of classes. Each set of papers contained instructions for the teachers together with a Time Schedule Form. The researcher was present on both days and visited classes during the test period. It was evident that the tests were conducted in a business-like way, and that the pupils, on the whole, tackled them with seriousness.

(ii) The teachers' reports indicated that some words had proved difficult for some pupils, particularly for remedial pupils - e.g. terrorists, youth fellowship, narrow-minded kill-jcys, uniformed organisation etc. A note from several teachers indicated that the format of the Teenage Interests Questionnaire caused difficulty for some pupils. A comment from a teacher in charge of a first year group is worth quoting verbatim:

"The majority found the question of killing old people "silly" - as they have no idea of
Several teachers reported that the pupils had found the tests interesting. One teacher, in charge of a lower-ability fourth year group, reported however;

"The pupils did not appear interested."

The question of confidentiality also caused some difficulty, and several pupils omitted to write their names on their scripts. In the case of one form (Form 20) the teacher appears to have discussed the matter with the pupils before collecting in the Religious Thinking Test. She reported;

"Some pupils (particularly the bright ones) thought the questions were too personal, when their names were on the papers, and I agree with them. The papers were headed 'confidential' and the entire form were annoyed that their names should be written on them at all."

Another comment from a second year teacher emphasises a difference of approach between the boys and the girls;

"Instructions were understood without difficulty and questions were tackled seriously and with concentration. Most answered the papers very quickly and I gained the impression that the girls gave them more serious and careful thought than the boys who tended to rush through to get on with their own reading. The boys generally finished more quickly."

(iii) Plenty of time was allowed for the test programme in order that the pupils should not feel rushed. In the case of Stage 2, a common complaint was that too much time had been allowed, and a Remedial Group teacher complained;

"Time is an important factor; low ability pupils cannot concentrate for this period of time (twenty minutes is an absolute maximum). In fact ninety minutes had been allowed but most classes finished within an hour, and several within forty minutes.

4. Preparation of Data for Analysis - Stages 1, 2 and 3. and Reliability of Marks awarded by Judges.

The scoring of the test papers and the finalisation of a set of raw scores acceptable for computer analysis proceeded in 5 stages.
(1) Scoring the Questionnaire and the AH4 Test.
Scoring keys were prepared for each of the questionnaires. In the case of Religious Attitude Questionnaire (Hyde) Parts 1 and 2, the weights suggested by Hyde were used. In the case of the Attitude Questionnaire (Mark) Parts 1 and 2, the Teenage Interests Questionnaire and the Religious Thinking Test, the weights derived from the pilot studies were used. The AH4 test was scored according to the key provided by the test publishers. A team of student teachers and neighbours was used to complete this straightforward, simple, but laborious exercise.

(2) Scoring the essay-type questions in the Teenage Interests Questionnaire and the Religious Thinking Test.
Twelve people were used in this task and they were instructed to mark the questions in accordance with precise criteria adumbrated by the researcher. Seven people marked the Teenage Interests Questionnaire and five people marked the Religious Thinking Test. Fewer people were required for this latter task because one of the judges, Mrs. Dorothy Rank, agreed to mark all the papers for School A.

(3) Testing the Reliability of the marks awarded by the Twelve Judges.
The papers were placed in separate boxes according to School and Year. Nine judges marked one box each, for example, School A, Year 1, two judges marked two boxes each, and one judge marked five boxes. A random sample of scripts was taken from each box in the proportion of ten scripts per box. Thus a total of one hundred and eighty papers was selected at random and these papers were re-marked by the researcher. The question of reliability of the judges' scores is important, and two tests were used to ascertain the measure of reliability in order to decide whether the scores as a whole could be accepted. The first test was to tabulate the measure of agreement within a difference of one point. This was regarded as a reasonable margin of acceptability, as total agreement in research of this nature was regarded as highly unlikely. The results of this simple test were impressive, with an average of 80% agreement for the Teenage Interests Questionnaire and 94% agreement for the Religious Thinking Test. The results are shown in Tables 21, 22 and 23.
TABLE 21
MAIN TEST PROGRAMME -
RELIABILITY OF JUDGES’ MARKS FOR ESSAY-TYPE QUESTIONS
IN THE TEENAGE INTERESTS QUESTIONNAIRE
AND THE RELIGIOUS THINKING TEST.

Percentage agreement between researcher and 12 judges.

<table>
<thead>
<tr>
<th></th>
<th>Q.1.</th>
<th>Q.2.</th>
<th>Q.3.</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teenage Interests</td>
<td>80</td>
<td>90</td>
<td>71</td>
<td>80</td>
</tr>
<tr>
<td>Questionnaire</td>
<td>86</td>
<td>98</td>
<td>100</td>
<td>94</td>
</tr>
</tbody>
</table>

TABLE 22
MAIN TEST PROGRAMME -
RELIABILITY OF JUDGES’ MARKS FOR ESSAY-TYPE QUESTIONS
IN THE TEENAGE INTERESTS QUESTIONNAIRE

Percentage agreement between marks awarded by seven judges and marks awarded by the researcher for a random sample of scripts - within a margin of one point.

<table>
<thead>
<tr>
<th>Names of Scorers</th>
<th>Approx. no. papers marked</th>
<th>Total no. re-marked</th>
<th>Part 1 5 point scale</th>
<th>Part 2 3 point scale</th>
<th>Part 3 5 point scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Hopkinson</td>
<td>500</td>
<td>20</td>
<td>85</td>
<td>100</td>
<td>85</td>
</tr>
<tr>
<td>M. Lee</td>
<td>250</td>
<td>10</td>
<td>60</td>
<td>90</td>
<td>50 ***</td>
</tr>
<tr>
<td>M. Knott</td>
<td>500</td>
<td>20</td>
<td>95</td>
<td>100</td>
<td>85</td>
</tr>
<tr>
<td>P. Stewart</td>
<td>250</td>
<td>10</td>
<td>80</td>
<td>90</td>
<td>60</td>
</tr>
<tr>
<td>S. Halliwell</td>
<td>250</td>
<td>10</td>
<td>50</td>
<td>80</td>
<td>30 *****</td>
</tr>
<tr>
<td>J. Kitchin</td>
<td>250</td>
<td>10</td>
<td>90</td>
<td>100</td>
<td>90</td>
</tr>
<tr>
<td>J. Cameron</td>
<td>200</td>
<td>10</td>
<td>100</td>
<td>70</td>
<td>100</td>
</tr>
</tbody>
</table>

Note: N. Lee - agreement within 2-point margin
*** = 100%, 100%, 90%.
S. Halliwell - agreement within 2-point
***** margin = 100%, 90%, 100%. 
TABLE 23

MAIN TEST PROGRAMME -
RELIABILITY OF JUDGES' MARKS FOR ESSAY-TYPE QUESTIONS
IN THE RELIGIOUS THINKING TEST

Percentage agreement between marks awarded by five judges and marks awarded by the Researcher for a random sample of scripts - within a margin of one point.

<table>
<thead>
<tr>
<th>Names of Scorers</th>
<th>Approx no. papers marked</th>
<th>Total no. re-marked</th>
<th>Part 1 3 point scale</th>
<th>Part 2 3 point scale</th>
<th>Part 3 3 point scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. B. Parker</td>
<td>250</td>
<td>10</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>2. R. Darrington</td>
<td>250</td>
<td>10</td>
<td>90</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>3. C. Wright</td>
<td>250</td>
<td>10</td>
<td>90</td>
<td>90</td>
<td>100</td>
</tr>
<tr>
<td>4. M. Summers</td>
<td>250</td>
<td>10</td>
<td>60</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>5. D. Rank</td>
<td>1000</td>
<td>50</td>
<td>92</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

The second test was to compute the Pearson product moment correlation coefficient in respect of all scores produced by the team of scorers in comparison with those given by the Researcher. Again, the result was impressive; all the values were positive and the measure of agreement in most cases was seen to be significant at .05 level and beyond.¹ The results are shown overleaf in Tables 24 and 25. It was decided that the scores provided by the team of judges were acceptable and could be incorporated into the main body of data.

TABLE 24
MAIN TEST PROGRAMME -
RELIABILITY OF JUDGES' MARKS FOR ESSAY-TYPE QUESTIONS
IN THE TEENAGE INTERESTS QUESTIONNAIRE

Pearson Correlation Coefficient values derived from a comparison of marks awarded by seven judges and marks awarded by the researcher.

* = significant .05
** = significant .01

<table>
<thead>
<tr>
<th>Names of Scorers</th>
<th>Approx. no. papers marked</th>
<th>Total no. re-marked</th>
<th>PEARSON r.</th>
<th>TS.</th>
<th>123</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>Part 1</td>
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<td>Part 3</td>
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<tr>
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<td>.81 **</td>
<td>.72 **</td>
<td>.71 **</td>
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<tr>
<td>2. N. Lee</td>
<td>250</td>
<td>10</td>
<td>.69 *</td>
<td>.34</td>
<td>.38</td>
</tr>
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<td>3. M. Knott</td>
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<td>.91 **</td>
<td>.90 **</td>
</tr>
<tr>
<td>4. F. Stewart</td>
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<td>10</td>
<td>.85 **</td>
<td>.69 *</td>
<td>.78 **</td>
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<td>5. S. Halliwell</td>
<td>250</td>
<td>10</td>
<td>.37</td>
<td>.25</td>
<td>.17</td>
</tr>
<tr>
<td>6. J. Kitchin</td>
<td>250</td>
<td>10</td>
<td>.86 **</td>
<td>.75 *</td>
<td>.94 **</td>
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<tr>
<td>7. J. Cameron</td>
<td>200</td>
<td>10</td>
<td>.97 **</td>
<td>.58</td>
<td>.89 **</td>
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</tbody>
</table>
TABLE 25
MAIN TEST PROGRAMME -
RELIABILITY OF JUDGES' MARKS FOR ESSAY-TYPE QUESTIONS
IN THE RELIGIOUS THINKING TEST

Pearson Correlation Coefficient values derived from a comparison of marks awarded by five judges and marks awarded by the researcher.

* = significant .05
** = significant .01

<table>
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<tr>
<th>Names of Scorers</th>
<th>Approx. no. papers remarked</th>
<th>Total no. re-marked</th>
<th>Pearson r</th>
<th>TS.</th>
<th>123</th>
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</thead>
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<td>Part 2</td>
<td>Part 3</td>
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<td>1000</td>
<td>50</td>
<td>.70 **</td>
<td>.58 **</td>
<td>.76 **</td>
</tr>
</tbody>
</table>

(4) Two sets of scores from the Teenage Interests Questionnaire.
In the development of the Teenage Interests Questionnaire four sub-scales were identified. In the present experiment the sub-scale "Others" was not used, and the sub-scale "Reasons" was included in the scale for "overt religious behaviour" and in the scale for "helpfulness." Two scores were thus derived from the Teenage Interests Questionnaire:-(a) a score for overt religious behaviour, and (b) a score for helpfulness.

(5) One score from the Religious Thinking Test.
One score for the Religious Thinking Test was recorded. Sections A and B were marked according to the scoring key used in the pilot study. The scores given for the essay-type questions in Section C were added to the scores for Sections A and B, thus making one total score for religious thinking.

(6) Sample Statistics - Total Size of Sample.
Having scrutinized the scripts, and rejected incomplete and unsuitable papers, a final set of raw scores was established. These are summarized in Table 26 below. The full details of the numbers of pupils in class order, sex and school who participated in the research programme, together with the number
of scripts which were retained for statistical analysis, are given in Appendix 30. It is noted that 386 scripts were eliminated from the original total of 2,383 pupils who participated in the research programme. A complete set of scores was required for the main statistical analysis; and when checking the scripts it was found that many pupils had been unable to provide a full set of test papers. Absenteeism due to lack of heating in the case of School A, had interrupted the test programme, together with the general levels of absenteeism in both schools which may normally be expected in the Spring Term due to sickness. Some scripts were rejected, however, on the grounds that the pupils had clearly not understood the questions. When confusion was clearly evident in the answers given to the essay-type questions, this was taken as a sound indicator of unreliability and in such cases all scripts were eliminated. When setting up the arrangements for the Investigation it was the deliberate intention not to exclude any children from the test programme. It was recognised that many "remedial children" would write the tests and would encounter difficulty in understanding some of the questions. It was expected that in many cases their scripts would have to be eliminated, and this proved to be the case. Some scripts which had been removed from the main set of data on the grounds of there being an incomplete set of test papers, were used, however, for the item analysis. It was pleasing to note that 1,997 sets of scores were available for the final statistical analysis. Of these 1,069 were from School A, and 928 from School B. (See Table 26 and Appendix 30.)

---

2. See below Chapter XI.

3. For example, School B, Class 38, from a set of 15 sets of data, 13 were eliminated, and only 2 were retained for analysis. See Appendix 30, Sheet 3.

4. See below, Chapter XI. Note: Whereas 1,997 sets of data were used for the factor analysis and 1,863 for the analysis of variance, it was possible to use 2,096 scores for the Item Analysis of the Hyde and Mark Questionnaires.
**TABLE 26**  
**SIZE OF THE SAMPLE**

Summary details of the numbers of boys and girls who participated in the research programme.  
(Full details are given in Appendix 30)

<table>
<thead>
<tr>
<th>Year</th>
<th>School</th>
<th>Original Sample</th>
<th>Rejected Data</th>
<th>Sample for Analysis</th>
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</thead>
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<tr>
<td></td>
<td></td>
<td>Boys</td>
<td>Girls</td>
<td>Total</td>
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<tr>
<td>I.</td>
<td>A</td>
<td>143</td>
<td>139</td>
<td>282</td>
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<tr>
<td></td>
<td>B</td>
<td>139</td>
<td>133</td>
<td>272</td>
</tr>
<tr>
<td>II.</td>
<td>A</td>
<td>139</td>
<td>139</td>
<td>278</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>122</td>
<td>122</td>
<td>244</td>
</tr>
<tr>
<td>III.</td>
<td>A</td>
<td>138</td>
<td>155</td>
<td>293</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>140</td>
<td>132</td>
<td>272</td>
</tr>
<tr>
<td>IV.</td>
<td>A</td>
<td>118</td>
<td>139</td>
<td>257</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>123</td>
<td>132</td>
<td>255</td>
</tr>
<tr>
<td>V.</td>
<td>A</td>
<td>122</td>
<td>108</td>
<td>230</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>-</td>
<td>108</td>
<td>230</td>
</tr>
<tr>
<td>Totals</td>
<td>1184</td>
<td>1199</td>
<td>2383</td>
<td>193</td>
</tr>
</tbody>
</table>

---

**Grand Totals**

- Years I to IV - School A: 464 boys, 471 girls, 935 total
- Years I to IV - School B: 459 boys, 469 girls, 928 total

- Sample used for Analysis of Variance: 923 boys, 940 girls, 1863 total
- PIUS Year V - School A: 68 boys, 66 girls, 134 total

- Sample used for Factor Analysis: 991 boys, 1006 girls, 1997 total
CHAPTER XI
A STATISTICAL ANALYSIS OF RELIGIOUS ATTITUDE, RELIGIOUS BEHAVIOUR AND RELIGIOUS THINKING

1. Introduction

(1) The Broad Aim of the Study.

Before describing the statistical analysis and the results which were obtained, it will be useful to give a brief recapitulation of the broad aim of this study. It has been argued that religion may be defined both functionally and substantively,¹ and that a broad inclusive definition of religious behaviour is preferable.² The Hyde questionnaires used in this research have provided a measure of children's attitude to institutionalized Christianity. The Mar test questionnaires have measured attitudes to people. (A high score on the Hyde questionnaires is indicative of a favourable attitude to Christianity; a high score on the Mark questionnaires is indicative of a sensitive and compassionate attitude to people.) The Teenage Interests Questionnaire has provided information about reported children's behaviour, both about their professed activity in connection with Church, Sunday School, the Bible and prayer, and also about their active support given to others in practical help. The Religious Thinking Test has measured children's ability to think about religious phenomena, both about aspects of traditional Christianity and other religions, and about the function which religion serves for the individual in providing answers to the problems of suffering and "ultimate reality." The A.H.4 Test has given a measure of general intelligence.

The broad aim of this study is to examine the possible inter-relationships which might exist between the scores obtained from these various test instruments.³ The more precise objective of this study is to test the five hypotheses of the research design.⁴

(2) Choice of Statistical Procedures

The statistical procedures used to analyse the data were factor analysis, analysis of variance and item analysis.⁵

1. See below, Part One, Chapter II.
2. Note: that is, it is to be preferred to a definition which views religious behaviour as synonymous with traditional institutionalized Christianity.
3. c.f. Part One, Chapter I., 4.
4. c.f. Part Two, Chapter IX., 4.
5. c.f. Part Two, Chapter IX, 5.
(i) Factor Analysis

Factor Analysis determines whether some underlying pattern of relationships exists within the data. The chief advantage of factor analysis is its "data-reduction capability," though the interpretation of the factors is provided by the experimenter. Hence the most common use of factor analysis is an exploratory one and this is the purpose for which it was employed in this study. The aim was to discover what underlying factors exist within the data. Although different types of test score are identified in the experimental design (e.g. attitude scores, behaviour scores and religious thinking scores) it could not be assumed in advance of the analysis, that these types of score would be reflected as corresponding factors. It was of interest also to ascertain whether the underlying pattern detected in School A, for example, was similar to the underlying pattern observed in School B.

(ii) Analysis of Variance

The second statistical method used was analysis of variance. This technique enables the researcher to assess the effects of "independent variables" upon a set of test scores. In the present research three independent variables were present, namely, the school, sex and age of each pupil. In discussing the results of an analysis of variance these independent variables are also referred to as factors. The test scores themselves are described as "dependent variables." Previous research would suggest that sex and age would have a significant effect upon, for example, attitudes to

6. "The single most distinctive characteristic of factor analysis is its data-reduction capability. Given an array of correlation coefficients for a set of variables, factor-analytic techniques enable us to see whether some underlying pattern of relationships exists such that the data may be "rearranged" or "reduced" to a smaller set of factors or components that may be taken as source variables accounting for the observed interrelations in the data." - Jae-On Kim: "Factor Analysis" Statistical Package for the Social Sciences, Second Edition, (Ed.) Norman H. Nie et al, McGraw Hill, 1975., page 469.

7. Ibid.
religion and general intelligence. It was expected, therefore, that if previous research findings were to be confirmed by the present research, the results would show (a) that a decrease in "attitude to religion" score corresponds to increasing age, (b) that girls have generally a more positive attitude to religion than boys, and that (c) increases in general intelligence scores correspond to increasing age. The effect of the school factor upon the results could not be predicted. If a significant effect due to school were to be found, it would mean that to some extent the results of the research in each of the schools would need to be treated separately. If, on the other hand, no significant effect due to school were to be found, it would be possible to consider both schools as one homogeneous sample.

(iii) Item Analysis

The third method used in the statistical procedures was that of item analysis. This was employed in respect of the four attitude questionnaires and in respect of the "overt religious behaviour" questions in the Teenage Interests Questionnaire. The purpose of the item analysis was two-fold. Firstly, it provided a measure of the reliability of the instrument as a whole, and secondly it provided precise detailed information about the pattern of responses for each individual item on the questionnaires and hence gave supportive and illuminating comment on the larger scale patterns shown by the statistical techniques.

(3) Computer Programmes used in the Analyses.

The Statistical Package for the Social Sciences (SPSS) is a system of computer programmes specially designed for the analysis of social science data. The results of the factor analysis and the analysis of variance described in this chapter, were obtained by using the SPSS programmes. The researcher had access to the SPSS facility at Manchester University through a computer link from the Leeds University Computer Centre. The Item Analysis of the questionnaires was computed at the University of London Computer Centre.

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using a specially designed "test analysis package" to which the researcher had access as a postal user.10

2. Factor Analysis

(1) Method

(i) A basic assumption of this research is that adolescent religious behaviour is multi-dimensional11 that is, it embraces both affective and cognitive elements. It was of interest to enquire, therefore, whether this assumption could be supported by the analysis of the children's performance on the battery of tests used in the research. The test battery included measures to test both affective and cognitive aspects of religion. Factor analysis enables the researcher to determine underlying relationships which might exist within the data, and if this distinction between the affective and the cognitive is to be demonstrated in the present research, these two sets of scores should emerge as separate, distinct, factors. The content of the Hyde and Mark attitude questionnaires, however, was considerably different. The Hyde questionnaires were unequivocally about traditional religion - about God, the church, Jesus, prayer and the Bible. The Mark questionnaires, were about people - terrorists, shoplifters, the old, the black and the lonely. Would the pupils' responses to the Mark questionnaires function as part of a general attitude factor, or would it be shown that attitudes to people function as a separate factor, that is, distinct and different from attitudes to traditional religion? If responses to the Hyde and Mark questionnaires emerge as separate factors this will add further support to a multi-dimensional view of religion. The test battery also included two behaviour measures. In the test variable labelled RBR (Overt Religious Behaviour) the scores reflect self-reported frequencies of church and Sunday-School attendance, Bible-reading and prayer; in the variable labelled RBH (Religious Behaviour Helpfulness) the scores


11. c.f. Part One, Chapter II.
reflect self-reported frequencies of, for example, help given to others in household chores and visits to old people. Would these behaviour measures be shown as separate "behaviour factors", or as one common "behaviour factor", or would they emerge as part of a general "attitude factor"? Finally, the possibility of all the variables loading heavily on one "general factor" was considered; if this result were to occur, it would lend support to a uni-dimensional view of religious behaviour and would throw into question the basic assumptions of the research design.

(ii) Several options for different methods of factor analysis are available within the SPSS programme. It was decided to use Principal Factoring with Iteration (PA2) and to employ orthogonal rotation using the Varimax programme.

(a) Principal Factoring with Iteration (PA2) employs an iteration procedure for improving the estimates of communality. This method is described in the SPSS Handbook as follows:

"First the program determines the number of factors to be extracted from the original or unreduced correlation matrix. The program then replaces the main diagonal elements of the correlation matrix with initial estimates of communalities ... Next, it extracts the same number of factors from this reduced matrix, and the variances accounted for by these factors become new communality estimates. The diagonal elements are then replaced with these new communalities. This process continues until the difference between the two successive communality estimates are negligible."

(b) Orthogonal rotation using the Varimax programme centres on "simplifying the columns of a factor matrix" and is the method most widely used. In an orthogonal solution, factors are forced to be

13. Ibid., page 485
orthogonal, that is, uncorrelated.\(^\text{14}\)

(iii) Ten variables\(^\text{15}\) were used in the computer programme. Consideration was given as to whether the variables RAT (Religious Attitude Total) and AT (Attitude Mark Total) should be included in the factor analysis. Each of these variables represents derived scores from the sets of Attitude questionnaires and it was of interest to ascertain whether their inclusion in the factor matrix would provide a degree of imbalance. For by excluding these two variables, the input to the factor matrix would include two variables for religious attitude, two variables for attitude to people, two variables for behaviour, and two variables for cognition. It was decided to compute the factor analysis firstly with eight variables, then with ten variables. The programme was also run separately for each of the schools. In each run remarkably similar solutions were obtained\(^\text{16}\) (See Appendices, 34, 35, 36, 37 and 38) and it was decided therefore, to include all the available data in the analysis. It is the solution to the factor analysis for the ten variables, with 1,997 subjects, and from both schools, which is described and commented upon below.

The computer programme provides the option for the researcher to vary the number of factors in the iteration procedure; three factors were identified. Of the 1,997

\[\text{14. SPSS, 1975, op. cit., page 474.}\]

\[\text{15. The variables used in the computer programme were labelled as follows:-}\]

- RA2 - Religious Attitude Hyde Part 2.
- RAT - Religious Attitude Hyde Total.
- RBR - Overt Religious Behaviour.
- A2 - Attitude Mark Part 2.
- AT - Attitude Mark Total.
- RBH - Religious Behaviour Helpfulness.
- RC - Religious Thinking.
- AH4 - General Intelligence.

\[\text{16. Note: Three principal factors were identified in each case. The inclusion of RAT and AT, however, increased the percentage of variance of the second factor (attitude to people) and diminished the percentage variance of the third factor (cognition). c.f. Appendix. 34.}\]
subjects used in the analysis, 1069 were from School A and 928 from School B.

(2) Results

(i) The first step in factor analysis is to establish a correlation matrix. This is shown in Table 27 overleaf.

---

TABLE 27
FACTOR ANALYSIS
correlations between variables.

<table>
<thead>
<tr>
<th>RA1</th>
<th>RA2</th>
<th>RAT</th>
<th>RBR</th>
<th>A1</th>
<th>A2</th>
<th>AT</th>
<th>RBN</th>
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<td>.001</td>
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</tr>
</tbody>
</table>

(COEFFICIENT / CASES / SIGNIFICANCE) (99.0000 MEANS UNCOMPUTABLE)
Comments for Table 27

1. The variables RA1, RA2, RAT are strongly correlated and this is to be expected.

2. A1, A2, AT are also intercorrelated although less strongly than is the case with the RA variables.

3. RBR is more strongly correlated with RA1, RA2 and RAT than with the other "behaviour" variable RBH.

4. RBH has generally low correlations with the other variables, the highest (.25) being with RBR. Strong correlations with A1, A2 and AT might have been expected but have not been obtained.

5. Most of the intercorrelations between variables are significant at .001.

6. The following correlations are significant at .01; RC and A2; RC and AT; AH4 and RA1; AH4 and A1.

7. The following correlation is significant at .05; RC and RAT.

8. The following correlations fail to reach the .05 confidence level; RC and RA2; RC and A1; AH4 and RBR; AH4 and A2; AH4 and AT.

9. A strongly positive correlation between AH4 and RC is observed (significant at .001) This correlation of .57 suggests the possibility of a cognitive factor, particularly because low but significant correlations were obtained between AH4 and most of the other variables. Negative coefficients were obtained between AH4 and RA1, RA2, RAT, A1 and AT.
(ii) The second step in factor analysis is to explore the data reduction possibilities by constructing a new set of variables on the basis of the interrelations exhibited in the data. Initial factors are extracted so that "one factor is independent from the other; that is, the factors are orthogonal."\textsuperscript{18} It was noted above that Principal Factoring with Iteration (PA2) would be used in this analysis. Having established the correlation matrix, PA2 automatically replaces the main diagonal elements of the correlation matrix with "communality estimates." These "estimated communalities" are given below in Table 28.

\textsuperscript{18} SPSS 1975, op. cit., page 470.
TABLE 28
FACTOR ANALYSIS
ESTIMATED COMMUNALITIES AND PROPORTION OF VARIANCE

(squared multiple correlation)
(eigenvalues, and proportion of variance calculated from the unaltered correlation matrix.)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Estimated Communality</th>
<th>Factor</th>
<th>Eigenvalue</th>
<th>Pct of Var</th>
<th>Cum Pct</th>
</tr>
</thead>
<tbody>
<tr>
<td>RA1</td>
<td>.98</td>
<td>1</td>
<td>3.79</td>
<td>38.0</td>
<td>38.0</td>
</tr>
<tr>
<td>RA2</td>
<td>.98</td>
<td>2</td>
<td>1.95</td>
<td>19.6</td>
<td>57.5</td>
</tr>
<tr>
<td>RAT</td>
<td>.99</td>
<td>3</td>
<td>1.64</td>
<td>16.5</td>
<td>74.0</td>
</tr>
<tr>
<td>RBR</td>
<td>.46</td>
<td>4</td>
<td>.86</td>
<td>8.7</td>
<td>82.7</td>
</tr>
<tr>
<td>A1</td>
<td>.99</td>
<td>5</td>
<td>.66</td>
<td>6.6</td>
<td>89.3</td>
</tr>
<tr>
<td>A2</td>
<td>.99</td>
<td>6</td>
<td>.45</td>
<td>4.6</td>
<td>93.9</td>
</tr>
<tr>
<td>AT</td>
<td>.99</td>
<td>7</td>
<td>.39</td>
<td>3.9</td>
<td>97.8</td>
</tr>
<tr>
<td>RTRM</td>
<td>.11</td>
<td>8</td>
<td>.21</td>
<td>2.2</td>
<td>100.0</td>
</tr>
<tr>
<td>RC</td>
<td>.36</td>
<td>9</td>
<td>.00</td>
<td>.0</td>
<td>100.0</td>
</tr>
<tr>
<td>AH4</td>
<td>.35</td>
<td>10</td>
<td>.00</td>
<td>.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Comments for Table 28

It is clear from this Table that the overt religious behaviour variables RA1, RA2, RAT account for the largest proportion of the variance, namely, 74%.
On the basis of the estimated communalities "initial factors" are extracted. These represent "defined factors" and:

"... no particular assumption about the underlying structure of the variables is required." The first principal component ... may be viewed as the single best summary of linear relationships exhibited in the data. The second component is defined as the second best linear combination of variables, under the condition that the second component is orthogonal to the first."\(^{19}\)

The initial solution produced three defined factors, and these are shown in the unrotated factor matrix given below in Table 29.

\(^{19}\) SPSS. 1975, op. cit., page 470.
TABLE 29
FACTOR ANALYSIS
UNROTATED FACTOR MATRIX (INITIAL SOLUTION),
FINAL COMMUNALITIES, AND PERCENT OF COMMON VARIANCE
ACCOUNTED FOR BY UNROTATED FACTORS

<table>
<thead>
<tr>
<th></th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Communality</th>
</tr>
</thead>
<tbody>
<tr>
<td>RA1</td>
<td>.868</td>
<td>-.358</td>
<td>.027</td>
<td>.883</td>
</tr>
<tr>
<td>RA2</td>
<td>.858</td>
<td>-.368</td>
<td>-.109</td>
<td>.885</td>
</tr>
<tr>
<td>RAT</td>
<td>.917</td>
<td>-.388</td>
<td>-.045</td>
<td>.995</td>
</tr>
<tr>
<td>RBR</td>
<td>.605</td>
<td>-.279</td>
<td>.166</td>
<td>.472</td>
</tr>
<tr>
<td>A1</td>
<td>.525</td>
<td>.630</td>
<td>-.131</td>
<td>.691</td>
</tr>
<tr>
<td>A2</td>
<td>.496</td>
<td>.642</td>
<td>.072</td>
<td>.664</td>
</tr>
<tr>
<td>AT</td>
<td>.625</td>
<td>.779</td>
<td>-.039</td>
<td>1.00002</td>
</tr>
<tr>
<td>RBR</td>
<td>.270</td>
<td>.062</td>
<td>.187</td>
<td>.112</td>
</tr>
<tr>
<td>RC</td>
<td>.096</td>
<td>.029</td>
<td>.682</td>
<td>.475</td>
</tr>
<tr>
<td>AH4</td>
<td>-.070</td>
<td>.050</td>
<td>.669</td>
<td>.455</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>EigenValue</th>
<th>Pct of Var</th>
<th>Cum Pct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor 1</td>
<td>3.701</td>
<td>55.8</td>
<td>55.8</td>
</tr>
<tr>
<td>Factor 2</td>
<td>1.919</td>
<td>28.9</td>
<td>84.7</td>
</tr>
<tr>
<td>Factor 3</td>
<td>1.014</td>
<td>15.3</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Comments for Table 29

1. Three factors are identified. Factor 1 is a general attitudinal factor, but it also includes the variance due to RBR. Factor 2 is isolated as an attitudes to people factor. Factor 3, with strong weightings on RC and AH4 is clearly a cognitive factor.

2. One central assumption of this research is strongly supported by this result, namely, that children's religious understanding needs to be studied in terms of both affective and cognitive elements.
(iii) The third and final step in principal component analysis is rotation of factors into terminal factors. The main advantage of rotation is that it simplifies the factor structure. In the present research, the most widely used method of orthogonal rotation, "Varimax" was employed. The terminal solution identified three orthogonal factors and these are shown below in Table 30. These three factors may be labelled religious behaviour, compassion and cognition.

TABLE 30
FACTOR ANALYSIS

VARIMAX ROTATED FACTOR MATRIX (TERMINAL SOLUTION)

<table>
<thead>
<tr>
<th></th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>RA1</td>
<td>.929</td>
<td>.137</td>
<td>.024</td>
</tr>
<tr>
<td>RA2</td>
<td>.924</td>
<td>.131</td>
<td>-.1126</td>
</tr>
<tr>
<td>RAT</td>
<td>.986</td>
<td>.141</td>
<td>-.048</td>
</tr>
<tr>
<td>RBR</td>
<td>.664</td>
<td>.062</td>
<td>.163</td>
</tr>
<tr>
<td>A1</td>
<td>.125</td>
<td>.617</td>
<td>-.086</td>
</tr>
<tr>
<td>A2</td>
<td>.096</td>
<td>.800</td>
<td>.118</td>
</tr>
<tr>
<td>AT</td>
<td>.135</td>
<td>.990</td>
<td>.016</td>
</tr>
<tr>
<td>RBH</td>
<td>.201</td>
<td>.181</td>
<td>.196</td>
</tr>
<tr>
<td>RC</td>
<td>.075</td>
<td>.035</td>
<td>.684</td>
</tr>
<tr>
<td>AH4</td>
<td>-.078</td>
<td>-.032</td>
<td>.669</td>
</tr>
</tbody>
</table>

Comments for Table 30

1. The pattern of three distinct, orthogonal factors within the data is now unequivocally clear.

2. The three factors may be labelled:
   - Factor 1 - Religious Behaviour
   - Factor 2 - Compassion
   - Factor 3 - Cognition

3. The details of this Table may be compared with the additional information shown in Appendix 36, "Terminal Solutions for School A, School B and Total Sample Comparisons."

(iv) The SPSS computer programme provides a graphical representation of rotated orthogonal factor solutions. The terminal solution described in Table 30 may also be represented in the form of a graph in which one factor is contrasted orthogonally with another. Figure 1 shows the orthogonal contrast represented on a graph with religious behaviour as the horizontal factor and cognition as the vertical factor. The three factor pattern of the solution and the clear distinction between each of the factors is vividly illustrated by this diagram. (See overleaf.) Two other graphs, representing the factors rotated orthogonally were also provided by the computer programme and these are given in Appendices 32 and 33, (Figure 2 and Figure 3.)
FIGURE 1
FACTOR ANALYSIS
GRAPH - SHOWING THE THREE SEPARATE FACTORS
WITH RELIGIOUS BEHAVIOUR CONTRASTED ORTHOGONALLY WITH COGNITION.

n = 1,997

Horizontal Factor 1 (Religious Behaviour) * Vertical Factor 3 (Cognition)

1 = RA1 6 = A2
2 = RA2 7 = AT
3 = RAT 8 = RBH
4 = RBR 9 = RC
5 = A1 10 = AH4
Comments for Figure 1

1. Variables of 6, 7, 5 and 8 (the Compassion Factor) are close to the origin and therefore, have small loadings on both factors.

2. Variables 2, 3 and 5 have negative loadings on the Vertical variable.

3. Variable 10 has a negative loading on the Horizontal variable.

4. The three factor pattern, and the clear distinction between them is well illustrated by this diagram.

(3) Summary and Discussion.

(i) An underlying pattern of three orthogonal factors within the data has emerged. These factors have been labelled "religious behaviour", "compassion" and "cognition." The religious behaviour factor accounts for 55.8% of the variance in the factor solution, and includes strong loadings on the variables RA1, RA2 and RBR. This factor includes both an attitudinal and a behavioural dimension, that is, it is derived from scores obtained from the Hyde religious attitude questionnaires and from a behaviour inventory (RBR). Reference to the correlation matrix (Table 27) shows that strong and positive correlations were obtained between the scores for religious behaviour and the scores for religious attitude (.63, .60, .64.) It is clear that the extent of children's active participation in traditional religion is closely associated with their attitudes towards it. The direction of any causal connection, (that is, whether positive attitudes lead to active participation, or whether active participation leads to positive attitudes) however, is not indicated.

(ii) The compassion factor accounts for nearly 30% of the variance (28.9%) in the three-factor solution. Three variables only, have strong loadings on this factor and these are the scores derived from the two (Mark) attitude questionnaires. The theoretical basis for these questionnaires and the method by which they were constructed has been fully documented in earlier chapters of this work. The responses were weighted
in favour of sensitivity to others and hence the label "compassion" which has been assigned to this factor. It is argued that these questionnaires have provided measures of what some researchers have called "invisible religion" and although this theoretical and theological point has already been discussed, it will be taken up again when the implications of this research are more fully examined. The results of this factor analysis provide strong grounds for regarding the children's responses to the Mark attitude questionnaires as orthogonal to their responses to both the Hyde religious attitude measures and to the tests of religious thinking and general intelligence. The compassion factor must be regarded, therefore, as separate and distinct from the religious behaviour and cognition factors.

(iii) The cognition factor accounts for 15.3% of the variance and emerges as a distinct and separate factor. Only two variables show high, positive loadings on this factor - religious thinking (.68) and general intelligence (.66). The clear and unambiguous interpretation of this result is that religious thinking as measured by this test is strongly associated with general intelligence, rather than with religious attitude or with attitude to others (compassion). A glance at the correlation matrix (Table 27) shows very low correlation coefficients for religious thinking and the scores for religious attitude (.08 .004 .04). Similar results are observed for religious thinking and the scores for attitude to others (.03 .06 .05). This finding has important educational implications which will be discussed in the final chapter.

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21. See below, Part IV.

22. Note: A clear distinction needs to be made in the Religious Education curriculum between "knowledge about" religion, and "becoming religious." One suspects that a Rylean distinction between "knowing that" and "knowing how" is of relevance here.
(iv) A cautionary note on the interpretation of factor analysis statistics is found in the SPSS user's handbook:

"As more factor-analytic studies are made, the confirmatory uses of factor analysis, or hypothesis testing, will take on greater importance. It should be noted also that although all factor-analytic applications are ultimately based on the data-summarizing capability of the method, the specific applications to various research problems are bounded only by the user's imagination." 23

The interpretation of the results of this factor analysis is deliberately sober. Extravagant claims and imaginary flights of perception into contingent variables (the results of one variable being caused by the influence of another) are deliberately avoided. All that is claimed for these empirical results is that the responses of the children in School A and in School B on the ten variables used in this experiment have revealed an underlying pattern of three separate factors. These factors have been labelled 'religious behaviour', "compassion" and "cognition." Whether such a pattern can be regarded as likely to occur in cases beyond the immediate sample can only be ascertained by replication, and by including in further experiments at least some of the variables used here. Such "marker variables" and replication studies are a pre-requisite of factor analysis interpretation. Nonetheless,

"... a methodologically sound factor analytic finding in any substantive area - yielding a new concept, simply as a definite pattern of numbers, i.e. loadings - is the most valuable kind of contribution in itself." 24

---

3. Analysis of Variance.

(1) Statistical Procedure

(i) Choice of Model

In the discussion at the beginning of this chapter on the choice of statistical procedures it was indicated that analysis of variance is a technique which enables the researcher to assess the effects of independent variables upon a set of test scores. The model chosen in the present research may be described as an analysis of covariance, using the AH4 test scores as a covariate. The purpose of adjusting the data in this way was to counteract differences of intelligence between the two school populations and so to provide a more accurate measure of the influence of the factors school, sex and year on the remaining variables in the test battery.

"Most commonly, metric covariates are inserted into a design to remove extraneous variation from the dependent variable, thereby increasing measurement precision. In such applications, the effects of non-metric factors are of primary concern. Regression procedures are used to remove variation in the dependent variable due to one or more covariates, and a conventional analysis of variance is then performed on the corrected scores."

(ii) The Design of the Analysis.

The design was that of a 3-way analysis of variance. The three independent variables were school, sex and year and these are referred to as FACTORS in the following discussion. The dependent variables were RA1, RA2, RAT, RB1, A1, A2, AT, RBH and RC with the tenth variable, AH4, analysed as a covariate. The data from Year 5, School A was omitted because there was not corresponding data available from School B and thus 1,863 cases were used in the analysis.

(iii) Fixed Effects.

Ideally a random effects model is to be preferred in order to enable the research results to be used as a

25. See Appendix 31. Note: Mean Score for AH4, School A = 23.75, and School B = 26.34.
basis for generalising to the school population as a whole. The two schools used in this experiment, however, were not randomly selected and a fixed effects model has to be accepted. The effects of sex and year are likely to be dependent upon the effects of school and for this reason it would appear also that a fixed effects model should be used. On the other hand, it would be wrong to assume that no generalisation is possible and indeed it is quite possible that the characteristics of the response patterns observed in this experiment may be representative of the population as a whole even though the sample is a non-random sample. For the purposes of this analysis, therefore, a fixed effects model is employed, and this is consistent with the theoretical basis of the MANOVA computer programme which provides F ratios assuming the fixed-effects model.

(iv) Non-orthogonal effects and Hierarchy.

When each cell of a cross classification analysis has exactly the same number of cases, all the factor effects are orthogonal.

"Not only is the effect of each factor independent of the effects of the other factors but the interaction effects among various factors are orthogonal to main effects." 

The present design is non-orthogonal, that is, the cell frequencies are unequal, and therefore, (a) interaction effects will not in general be independent of the main effects, and the effects of higher order interactions will not in general be independent of the effects of lower-order interactions, (b) in consequence of this, (the effects being correlated with each other) a causal hierarchy must be assigned to the effects before analysing the data.

---

28. SPSS Handbook - op.cit., page 399
29. Ibid. page 410.
(v) Classic Experimental Approach.
In order to deal with a non-orthogonal design several options are available to the SPSS user.
The classic experimental approach was utilised in this case since "it is appropriate for the common situation in which factors do not have a known causal order, but in which main effects may be assumed to be of higher priority than interaction effects." The order of the classic analysis is:-
   i. Main effects.
   ii. 2-way interaction.
   iii. 3-way interaction.
   iv. Residual.
As the present design is an analysis of covariance a further decision had to be made with regards to the effects of the co-variate. By utilising Option 8 on the computer programme the following analysis method was achieved:-
   i. Main effects of factors.
   ii. Covariate effects adjusted for factors.
   iii. Interactions.

(2) Results of Analysis of Variance.
The results of the analysis of variance are given below in Table 31. The more detailed relevant computer print-out is given in Appendix 39.

30. SPSS Handbook op. cit., page 408
## TABLE 31

**MULTIVARIATE TEST OF SIGNIFICANCE**

Wilks Lambda Statistic and Significance of F.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Within Cells Regression</th>
<th>School x sex</th>
<th>Sex x Year</th>
<th>School x Year</th>
<th>School x Sex</th>
<th>Year</th>
<th>Sex</th>
<th>School</th>
</tr>
</thead>
<tbody>
<tr>
<td>RA1</td>
<td>.471</td>
<td>.874</td>
<td>.546</td>
<td>.007</td>
<td>.009</td>
<td>.001</td>
<td>.001</td>
<td>.026</td>
</tr>
<tr>
<td>RA2</td>
<td>.002</td>
<td>.445</td>
<td>.465</td>
<td>.100</td>
<td>.031</td>
<td>.001</td>
<td>.001</td>
<td>.006</td>
</tr>
<tr>
<td>RAT</td>
<td>.017</td>
<td>.681</td>
<td>.454</td>
<td>.024</td>
<td>.014</td>
<td>.001</td>
<td>.001</td>
<td>.006</td>
</tr>
<tr>
<td>RBR</td>
<td>.006</td>
<td>.242</td>
<td>.943</td>
<td>.134</td>
<td>.057</td>
<td>.001</td>
<td>.001</td>
<td>.001</td>
</tr>
<tr>
<td>A1</td>
<td>.479</td>
<td>.764</td>
<td>.019</td>
<td>.095</td>
<td>.263</td>
<td>.001</td>
<td>.003</td>
<td>.074</td>
</tr>
<tr>
<td>A2</td>
<td>.511</td>
<td>.395</td>
<td>.049</td>
<td>.038</td>
<td>.721</td>
<td>.001</td>
<td>.001</td>
<td>.001</td>
</tr>
<tr>
<td>AT</td>
<td>.395</td>
<td>.629</td>
<td>.007</td>
<td>.824</td>
<td>.367</td>
<td>.001</td>
<td>.001</td>
<td>.055</td>
</tr>
<tr>
<td>RBH</td>
<td>.007</td>
<td>.057</td>
<td>.001</td>
<td>.001</td>
<td>.978</td>
<td>.003</td>
<td>.001</td>
<td>.001</td>
</tr>
<tr>
<td>RC</td>
<td>.001</td>
<td>.111</td>
<td>.516</td>
<td>.001</td>
<td>.875</td>
<td>.001</td>
<td>.005</td>
<td>.001</td>
</tr>
</tbody>
</table>

Note: The full details of the Multivariate Analysis Tables are given in Appendix 39, Pages 1 to 8.

**Comments on Table 31.**

1. **Wilks Lambda Statistic - Significance of F.**
   (i) The main effects of school, sex and year are significant at .01.
   (ii) Interaction effects between school and year, and between cells, are significant at .01.
   (iii) Interaction effects between sex and year are significant at .05.

2. **Univariate F. Tests - Significance of F.**
   (i) Main effects are statistically significant in respect of the following variables:
      (a) **School**: RA2, RAT, RBR, A2, RBH, RC (.01); RA1, AT (.05). The effect of school, in respect of A1 is not statistically significant.
      (b) **Sex**: All variables show significance levels at .01.
      (c) **Year**: All variables show significance levels at .01.
(ii) **Two-Way Interaction effects** are statistically significant in respect of the following variables:

(a) **School x Sex**: RA1, RAT (.01); RA2, RBR (.05)
(b) **School x Year**: RA1, RBH, RC (.01); RAT, A2 (.05).
(c) **Sex x Year**: A1, A2, RBH (.01); A2 (.05).

(iii) **Three-Way Interaction effects (School x Sex x Year)**
One variable only, RBH, is significant at .05.

(iv) **Within Cells Regression.** The within cells interaction effect is significant in respect of the following variables: - RA2, RAT, RBR, RBH, RC (.01).

3. **General Comment.**
The overall picture which emerges from these results is that the main effects, school, sex, year account for most of the variance within the test data. The evidence of some statistically significant interaction effects, however, indicates that differences in test scores cannot be interpreted entirely as due to the effects of the three main independent variables.

(3) **Scheffe Test.**

(i) Having ascertained that the effects of school, sex and year are in most cases significant beyond the .01 significance level, it is of interest to enquire where within each effect the significant differences lie.

The SPSS programme ONEWAY provides a variety of **a posteriori** contrast tests for the use of the researcher.

"An a posteriori test is a systematic procedure for comparing all possible pairs of group means. The groups are divided into homogeneous subsets, where the difference in the means of any two groups in a subset is not significant at some prescribed level."31

The Scheffe Test was selected on the grounds that it:

"... uses a single range value for all comparisons, which is appropriate for examining all possible linear combinations of group means, not just pairwise comparisons. Thus, it is stricter than the other tests. Scheffe is exact, even for unequal group sizes."32

32. Ibid., page 428.
(ii) The results of the Scheffe Test are given below in Tables 32 to 35, and the interpretation of the Scheffe Tables is given in paragraph (4) and Table 36. The Scheffe Test confirms the results of the F. Ratios derived from the multi-variate analysis and reported above in Table 31, except in the case of one statistic where a different finding is reported. The univariate F test for the effect of Year on the variable A2 shows the F. Ratio to be significant at .001. (See Table 31). The Scheffe Test shows that within the effect of year the significant difference (.05) lies between the scores for Year 1 and Year 4. However, this difference is not significant at the .01 level of significance. (See Table 36).
### TABLE 32
**ANALYSIS OF VARIANCE - SCHEFFE TEST**

**EFFECT OF SCHOOL**
(Sub-Groups, Schools and Mean Scores)

*Note: All groups which are not together, are significant.*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sub-Group 1</th>
<th>Sub-Group 2</th>
<th>Sub-Group 1</th>
<th>Sub-Group 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>RA1</td>
<td>School A 4.04</td>
<td>School B 4.63</td>
<td>School A 4.04</td>
<td>School B 4.63</td>
</tr>
<tr>
<td>RA2</td>
<td>School A 4.28</td>
<td>School B 4.88</td>
<td>School A 4.28</td>
<td>School B 4.88</td>
</tr>
<tr>
<td>RAT</td>
<td>School A 8.30</td>
<td>School B 9.52</td>
<td>School A 8.30</td>
<td>School B 9.52</td>
</tr>
<tr>
<td>RBR</td>
<td>School A 3.33</td>
<td>School B 4.81</td>
<td>School A 3.33</td>
<td>School B 4.81</td>
</tr>
<tr>
<td>A1</td>
<td>School B 7.33</td>
<td>School A 7.41</td>
<td>School B 7.33</td>
<td>School A 7.41</td>
</tr>
<tr>
<td>A2</td>
<td>School A 6.32</td>
<td>School B 6.83</td>
<td>School A 6.32</td>
<td>School B 6.83</td>
</tr>
<tr>
<td>AT</td>
<td>School A 13.73</td>
<td>School B 14.17</td>
<td>School A 13.73</td>
<td>School B 14.17</td>
</tr>
<tr>
<td>RBH</td>
<td>School A 16.74</td>
<td>School B 18.69</td>
<td>School A 16.74</td>
<td>School B 18.69</td>
</tr>
<tr>
<td>AH4</td>
<td>School A 23.75</td>
<td>School B 26.34</td>
<td>School A 23.75</td>
<td>School B 26.34</td>
</tr>
</tbody>
</table>

School A $N = 1,069$
School B $N = 928$

*Note: No significant difference exists between School A and School B in respect of the variable A1.*
### TABLE 33
**ANALYSIS OF VARIANCE - SCHEFFE TEST**
**EFFECT OF SEX**
(Sub-Groups, Schools and Mean Scores)

Note: All Groups which are not together, are significant.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sub-Group 1</th>
<th>Sub-Group 2</th>
<th>Sub-Group 1</th>
<th>Sub-Group 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>RA1</td>
<td>Boys 3.72</td>
<td>Girls 4.90</td>
<td>Boys 3.72</td>
<td>Girls 4.90</td>
</tr>
<tr>
<td>RA2</td>
<td>Boys 3.98</td>
<td>Girls 5.12</td>
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<td>Girls 25.21</td>
<td>Boys 24.69</td>
<td>Girls 25.21</td>
</tr>
</tbody>
</table>

**Boys N = 991**
**Girls N = 1,006**

**Note**: No significant difference exists between Boys and Girls in respect of the variable AH4.
TABLE 34
ANALYSIS OF VARIANCE - SCHEFFE TEST
EFFECT OF YEAR
(Sub-Groups, Years and Mean Scores)
Differences are significant at .05.

Note: All groups which are not together are significant.

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<th>Sub-Group 4</th>
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Year 1 N = 498
" 2 N = 447
" 3 N = 476
" 4 N = 442
" 5 N = 134
Total 1,997
### Table 35
ANALYSIS OF VARIANCE - SCHEFFE TEST

**EFFECT OF YEAR**

(Sub-Groups, Years and Mean Scores)

Differences are significant at .01

Note: All groups which are not together are significant.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sub-Group 1</th>
<th>Sub-Group 2</th>
<th>Sub-Group 3</th>
<th>Sub-Group 4</th>
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<td>Yr 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.53 3.65</td>
<td>3.65 4.21</td>
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<tr>
<td>RA2</td>
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<td>Yr 3 Yr 2</td>
<td>Yr 1</td>
</tr>
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<td>Yr 3 Yr 2</td>
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</tr>
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<td>8.42 9.24</td>
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</tr>
</tbody>
</table>

Key: As for Table 34
(4) Interpretation of Scheffe Tables

(i) Effect of School
Reference to Table 32 shows that when compared with School A consistently higher mean scores on all variables except A1, were obtained by School B. Differences between the means for the two schools are statistically significant at .01 except in the case of the variable Attitude Questionnaire (Hark) Part 1. No significant difference exists between School A and School B for this variable.

(ii) Effect of Sex
Reference to Table 33 shows that girls obtained consistently higher mean scores on all variables than boys. The difference between the Mean Scores are statistically significant for all variables, except AH4, and at the .01 significance level. There is no significant difference between the Mean Scores for Girls and for Boys on the AH4 Test.

(iii) Effect of Year
Reference to Tables 34 and 35 shows that the pattern of differences between the means varies considerably between the ten variables. In testing for statistical significance for the effect of year, ten pairs of means are compared. These are:

- Year 1 and Years 2, 3, 4, 5 (4)
- Year 2 and Years 3, 4, 5 (3)
- Year 3 and Years 4, 5 (2)
- Year 4 and Year 5 (1)

The computer print-out for the Scheffe Test, summarized in Tables 34 and 35, indicates the groups of pairs of means which are not significant. Therefore, all pairs of means which are not shown together on the Scheffe Tables, are statistically significant. The significant differences for the effects of Year on the ten variables and for the ten pairs of means, deducted from the Scheffe Tables, are shown in Table 36.
TABLE 36
ANALYSIS OF VARIANCE - SCHEFFE TEST
EFFECT OF YEAR
SIGNIFICANT DIFFERENCES FOR TEN PAIRS OF MEANS

<table>
<thead>
<tr>
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<th>Year 1 &amp; 3</th>
<th>Year 1 &amp; 4</th>
<th>Year 1 &amp; 5</th>
<th>Year 2 &amp; 3</th>
<th>Year 2 &amp; 4</th>
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<td>01</td>
<td>01</td>
<td>NS</td>
<td>01</td>
<td>01</td>
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<td>01</td>
<td>01</td>
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<td>01</td>
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Comments on Table 36

1. Significant differences for the effects of year on the Religious Attitude (Hyde) variables, RA1, RA2, RAT, are found mainly, but not entirely, in the differences between Year 1 and Years 2, 3, 4 and 5.

2. Many of the pairs of means on the Attitude (Mark) variables are not statistically significant. Nonetheless, statistically significant differences do exist between Year 1 and Years 4 and 5, and between Year 2 and 4, and these differences are sufficient to make the overall effect significant. For A1 (.01), for A2 (.05) and for AT (.01).

3. For the variable RBH only two pairs of means reach significance at the .01 level, namely Year 5 with Years 3 and 4.
4. For the variable Religious Thinking, RC, significant differences are found only between Year 1 and Year 2, 3 and 4.

5. The most consistent difference between the means for the effect of year is for the variable AH4. Of the ten pairs of means, nine reach the .01 level of statistical significance. The difference between the means for Years 4 and 5 is not statistically significant.
(5) Summary

(i) Religious Attitudes (RA1, RA2 and RA3)

(a) The general trend in religious attitude scores shows a linear decline with increasing age; the highest scores are obtained in Year 1 and the lowest scores in Year 4. (See Appendix 40)\(^{33}\)

(b) The decline in total score corresponding to increasing age is observed in the scores for School A and School B, and for boys and girls. (See Table 37).

(c) Girls obtain consistently higher scores than boys, in both schools and at each year level. (See Table 37).

(d) In general, the Religious Attitude total scores show the same pattern of a linear decline in both schools but with School B obtaining a higher level of scores. This is illustrated in the graph showing the two regression lines for Religious Attitude Total Score. The top line, representing the higher levels of score, refers to School B; the bottom line refers to School A. (See Figure 6)\(^{34}\)

(e) These results lend some support to Hyde's general finding of a decline in religious attitude score in the Secondary School.\(^{35}\) They provide substantial support also to the findings of Francis (1976) who showed a linear decline in religious attitude score beginning in the first year of junior school and continuing through the secondary school.\(^{36}\)

---

33. Appendix 40 Table of Cell Means and Standard Deviations.
34. Figure 6 - Note: This graph, and the graphs given in the following pages, were obtained on the Digital Plotter at the University of Manchester Regional Computer Centre, using the raw scores for 1,997 cases. c.f. University of Manchester Regional Computer Centre; SPSS - Version 6 on the 7600 at UMRCC, User's handbook Second Edition, August 1977, page 105 f.
TABLE 37
RELIGIOUS ATTITUDE - MEAN SCORES

SCHOOL A

<table>
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<tr>
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<th>Year 1</th>
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<th>Year 4</th>
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</tr>
<tr>
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<td>4.61</td>
<td>4.15</td>
<td>3.94</td>
<td>3.40</td>
</tr>
<tr>
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<td>5.44</td>
<td>4.02</td>
<td>4.14</td>
</tr>
<tr>
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<td></td>
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<tr>
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<td>8.40</td>
<td>7.72</td>
<td>6.42</td>
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<td>11.46</td>
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<td>8.26</td>
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SCHOOL B

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<th>Year 4</th>
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</thead>
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<td>5.05</td>
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<td>4.81</td>
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Note: The full table of Cell Means and Standard Deviations is given in Appendix 40.
FIGURE 6

RELIGIOUS ATTITUDE PATTERN OF SCORES FOR SCHOOL A AND SCHOOL B

(Top Regression Line = School B
Bottom Regression Line = School A)

RELIGIOUS ATTITUDES IN TWO ROTHERHAM SCHOOLS
(ii) Overt Religious Behaviour (RBR)

(a) The general pattern of scores for this variable is the same as that reported for religious attitude. (See Table 38).

(b) Girls consistently obtain higher scores than boys, in both schools, and at each year level.

(c) The pattern of scores is the same for both schools, namely, a linear decline with increasing age. But the level of scores for School B is consistently higher than the level of scores for School A. This is illustrated in the graph showing the regression lines for Overt Religious Behaviour. The top line, representing the higher levels of score, refers to School B; the bottom line refers to School A. (See Figure 7.)

<table>
<thead>
<tr>
<th>TABLE 38</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OVERT RELIGIOUS BEHAVIOUR - MEAN SCORES</strong></td>
</tr>
</tbody>
</table>

**SCHOOL A**

<table>
<thead>
<tr>
<th></th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td>3.37</td>
<td>3.44</td>
<td>2.37</td>
<td>2.37</td>
</tr>
<tr>
<td>Girls</td>
<td>5.08</td>
<td>4.78</td>
<td>3.93</td>
<td>3.13</td>
</tr>
</tbody>
</table>

**SCHOOL B**

<table>
<thead>
<tr>
<th></th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td>5.17</td>
<td>3.56</td>
<td>3.22</td>
<td>3.07</td>
</tr>
<tr>
<td>Girls</td>
<td>6.64</td>
<td>5.85</td>
<td>5.24</td>
<td>5.51</td>
</tr>
</tbody>
</table>

Note: The full table of Cell Means and Standard Deviations is given in Appendix 40.
FIGURE 7
OVERT RELIGIOUS BEHAVIOUR
PATTERN OF SCORES FOR SCHOOL A AND SCHOOL B
(Top Regression Line = School B
Bottom Regression Line = School A)
(iii) Compassionate Attitude (A1, A2, AT)

(a) A general decrease in Mean Total Scores for Compassionate Attitude to People is observed to correspond with increasing age. (See Table 39). The trend of the decrease in score, however, is not as pronounced as that reported for religious attitude.

(b) The general pattern in each school is the same. Girls obtain higher scores than boys in most cases. (The exception to this is Year 1, School B where boys obtain a higher mean total attitude score than girls.)

(c) The level of scores is higher in School B than in School A. This is illustrated in the graph showing the regression lines for total attitude score with increasing age. The top regression line refers to School B, and the bottom line refers to School A. (See Figure 8.)

(iv) Religious Behaviour (Helpfulness)

(a) Girls consistently obtain higher scores than boys, in both schools. (See Table 39).

(b) Pupils in School B consistently obtain higher scores than pupils in School A.

(c) There is a slight increase in mean total scores corresponding with increasing age, for boys in School A and for girls in School A and School B.

(d) The mean total scores for boys in School B shows a general decline with increasing age.

(e) The regression lines for the scores of the total sample, therefore, show a very slight increase in total scores corresponding to increasing age. (See Figure 9).
TABLE 39  
COMPASSIONATE ATTITUDE AND HELPFULNESS 
MEAN SCORES 

<table>
<thead>
<tr>
<th>SCHOOL A</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1 Boys</td>
<td>7.92</td>
<td>7.35</td>
<td>7.36</td>
<td>6.64</td>
</tr>
<tr>
<td>Girls</td>
<td>7.76</td>
<td>7.71</td>
<td>7.87</td>
<td>7.33</td>
</tr>
<tr>
<td>A2 Boys</td>
<td>6.51</td>
<td>6.30</td>
<td>6.15</td>
<td>5.58</td>
</tr>
<tr>
<td>Girls</td>
<td>6.83</td>
<td>6.46</td>
<td>6.25</td>
<td>6.21</td>
</tr>
<tr>
<td>AT Boys</td>
<td>14.44</td>
<td>13.63</td>
<td>13.52</td>
<td>12.22</td>
</tr>
<tr>
<td>Girls</td>
<td>14.60</td>
<td>14.16</td>
<td>14.13</td>
<td>13.55</td>
</tr>
<tr>
<td>Girls</td>
<td>18.82</td>
<td>17.00</td>
<td>20.78</td>
<td>20.67</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SCHOOL B</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1 Boys</td>
<td>7.83</td>
<td>7.23</td>
<td>6.98</td>
<td>6.03</td>
</tr>
<tr>
<td>Girls</td>
<td>7.88</td>
<td>8.15</td>
<td>7.41</td>
<td>7.03</td>
</tr>
<tr>
<td>A2 Boys</td>
<td>6.95</td>
<td>6.53</td>
<td>7.00</td>
<td>6.06</td>
</tr>
<tr>
<td>Girls</td>
<td>6.76</td>
<td>6.97</td>
<td>7.27</td>
<td>7.06</td>
</tr>
<tr>
<td>AT Boys</td>
<td>14.78</td>
<td>13.76</td>
<td>13.99</td>
<td>12.10</td>
</tr>
<tr>
<td>Girls</td>
<td>14.66</td>
<td>15.10</td>
<td>14.69</td>
<td>14.10</td>
</tr>
<tr>
<td>RBH Boys</td>
<td>17.42</td>
<td>15.92</td>
<td>16.11</td>
<td>15.21</td>
</tr>
<tr>
<td>Girls</td>
<td>20.52</td>
<td>20.83</td>
<td>20.99</td>
<td>22.22</td>
</tr>
</tbody>
</table>

Note: The full table of Cell Means and Standard Deviations is given in Appendix 40.
FIGURE 8

COMPASSIONATE ATTITUDE TO PEOPLE

PATTERN OF SCORES FOR SCHOOL A AND SCHOOL B

(Top Regression Line = School B
Bottom Regression Line = School A.)

STRENGTH OF COMPASSIONATE ATTITUDE TO PEOPLE

AGE (SCHOOL YEAR)
FIGURE 9
HELPFULNESS
PATTERN OF SCORES FOR SCHOOL A AND SCHOOL B
(Top Regression Line = School B
Bottom Regression Line = School A.)

HELPFULNESS ("RELIGIOUS BEHAVIOUR")

AGE (SCHOOL YEAR)
(v) Religious Thinking (RC) and General Intelligence (AH4)

(a) The trend is for an increase in scores corresponding with increasing age. This is found in the pattern of scores on both tests, for both schools, and for boys and girls. (See Figures 10 and 11.)

(b) School B consistently obtains higher scores than School A on both tests. (See Table 40).

(c) Girls generally obtain higher scores than boys on both tests. (See Table 40).

(d) An interesting feature of the pattern of scores for Religious Thinking is the almost identical Mean Scores for Year 4 in the case of School A boys (14.92), School A girls (15.01), and School B boys (14.97). The Mean Score for School B girls, however, is 16.80.
# Table 40

## Religious Thinking and General Intelligence

### Mean Scores

#### School A.

<table>
<thead>
<tr>
<th></th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>RC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>12.68</td>
<td>13.96</td>
<td>13.76</td>
<td>14.92</td>
</tr>
<tr>
<td>Girls</td>
<td>13.11</td>
<td>14.76</td>
<td>14.95</td>
<td>15.01</td>
</tr>
<tr>
<td>AH4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>18.64</td>
<td>23.36</td>
<td>23.11</td>
<td>26.55</td>
</tr>
<tr>
<td>Girls</td>
<td>18.30</td>
<td>22.66</td>
<td>24.18</td>
<td>27.06</td>
</tr>
</tbody>
</table>

#### School B.

<table>
<thead>
<tr>
<th></th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>RC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>14.92</td>
<td>16.34</td>
<td>16.86</td>
<td>14.97</td>
</tr>
<tr>
<td>Girls</td>
<td>15.04</td>
<td>16.59</td>
<td>18.54</td>
<td>16.80</td>
</tr>
<tr>
<td>AH4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>21.74</td>
<td>24.92</td>
<td>27.20</td>
<td>29.52</td>
</tr>
<tr>
<td>Girls</td>
<td>22.09</td>
<td>23.76</td>
<td>30.50</td>
<td>31.50</td>
</tr>
</tbody>
</table>

Note: The full table of Cell Means and Standard Deviations is given in Appendix 40.
FIGURE 10

RELIGIOUS THINKING

PATTERN OF SCORES FOR SCHOOL A AND SCHOOL B

(Top Regression Line = School B
Bottom Regression Line = School A.)
FIGURE 11
GENERAL INTELLIGENCE (AH4 TEST, PART ONE)
PATTERN OF SCORES FOR SCHOOL A AND SCHOOL B
(Top Regression Line = School B
Bottom Regression Line = School A.)

GENERAL INTELLIGENCE MEASURE

AGE(SCHOOL YEAR)
(e) The pattern of scores on the AH4 test in both schools reached levels generally below the norms published in the test manual.\textsuperscript{37} (See Table 41.) The manual provides norms for scores derived from both parts of the test. Both parts are strongly correlated;

"In all cases but those of highly selected groups of the most intelligent subjects, the correlations between the parts lie between 0.70 and 0.81."\textsuperscript{38}

Moreover, each part provides a maximum score of 65 points. Precise comparison between the present data and the AH4 norms is not possible, but by halving the test norm figures, a basis for comparison with the present data can be established. (See Table 42.)

\textbf{TABLE 41}

\textit{AH4 TEST SCORES - NORMS}\textsuperscript{39}

<table>
<thead>
<tr>
<th>AH4 Test Scores</th>
<th>Norms</th>
<th>Mean Score Parts 1 &amp; 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 yr. old</td>
<td>Comprehensive School Children</td>
<td>51.6</td>
</tr>
<tr>
<td>12 yr. old</td>
<td>&quot;</td>
<td>54.4</td>
</tr>
<tr>
<td>13 yr. old</td>
<td>&quot;</td>
<td>58.8</td>
</tr>
<tr>
<td>14 yr. old</td>
<td>Secondary Modern School Children</td>
<td>59.51</td>
</tr>
</tbody>
</table>


\textsuperscript{38} Ibid., page 9.

\textsuperscript{39} Ibid., page 10 f.
TABLE 42
COMPARISON OF TEST SCORES FOR SCHOOL A AND
SCHOOL B WITH AH4 TEST NORMS

<table>
<thead>
<tr>
<th>Year</th>
<th>Age</th>
<th>School A</th>
<th>School B</th>
<th>Test Norms.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>11+</td>
<td>18.47</td>
<td>21.92</td>
<td>25.80 (51.60)</td>
</tr>
<tr>
<td>2</td>
<td>12+</td>
<td>23.01</td>
<td>24.34</td>
<td>27.20 (54.40)</td>
</tr>
<tr>
<td>3</td>
<td>13+</td>
<td>23.66</td>
<td>28.85</td>
<td>29.40 (58.80)</td>
</tr>
<tr>
<td>4</td>
<td>14+</td>
<td>26.80</td>
<td>30.55</td>
<td>29.75 (59.51)</td>
</tr>
<tr>
<td>5</td>
<td>15+</td>
<td>30.14</td>
<td>---</td>
<td>---</td>
</tr>
</tbody>
</table>

Note: Test Norms are divided by two to provide a basis for comparisons.

Reference to Table 42 indicates that both schools show Mean Scores for each year which are below the norms. The one exception to this is the Mean Score in respect of Year 4 in School B where the Mean Score is above the norm.

(vi) Overall Pattern of Scores.
(a) The effect of school.
Clear differences between the scores for the two schools have been given in detail. It was shown in the results of the analysis of variance that these differences are statistically significant. It is plainly evident that the differences relate to the level rather than to the general pattern of scores. The regression line graphs shown in the preceding pages\textsuperscript{40} indicate that the pattern of scores in each school is remarkably similar. This confirms precisely an important finding of the factor analysis which was reported earlier, namely that the scoring patterns of the two schools when analysed separately, show marked similarities to the scoring pattern of the total sample, that is, to the pattern which emerges when the data from the two schools is considered together. It has been shown that on the AH4 test, the pupils from School A...

40. See Figures 6 to 11.
School B consistently gained the higher level of scores, and that this must be regarded as an important contributory factor which has influenced this level of test scores. Nonetheless, the striking similarities in the scoring patterns of the two schools suggest that a large degree of homogeneity has been obtained.

(b) The effect of pupil's sex.
The effect of the pupil's sex on the test scores has been clearly demonstrated. The analysis of variance results reported earlier have shown that in most cases the differences due to sex have been statistically significant. Reference to Table 43 below, shows that on all variables and in both schools, the girls consistently obtained the highest mean scores.\textsuperscript{41} The possible reasons for this will be discussed in Part IV of this work, but one possible explanation is that the general content area with which this research has been concerned is one that is likely to elicit more interest from girls than from boys. The significant differences due to the factor of sex are nonetheless an interesting and valuable result of this research.

\textsuperscript{41} Note: The one exception to this is the AH4 Mean Score for School A where the boys obtained a Mean Score of 23.79 compared with the girls' Mean Score of 23.72. For the total sample, however, the Mean Score for Boys is 24.69, compared with that of the Girls which is 25.21.
### TABLE 43

**THE EFFECT OF SIX - MEAN SCORES ON THE TEN VARIABLES**

(N = 1,997)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Boys (N = 991)</th>
<th>Girls (N = 1,006)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>School A N = 532</td>
<td>School B N = 459</td>
</tr>
<tr>
<td>RA1</td>
<td>3.67</td>
<td>3.78</td>
</tr>
<tr>
<td>RA2</td>
<td>3.90</td>
<td>4.09</td>
</tr>
<tr>
<td>RAT</td>
<td>7.53</td>
<td>7.88</td>
</tr>
<tr>
<td>RBR</td>
<td>2.71</td>
<td>3.78</td>
</tr>
<tr>
<td>A1</td>
<td>7.20</td>
<td>7.05</td>
</tr>
<tr>
<td>A2</td>
<td>6.16</td>
<td>6.65</td>
</tr>
<tr>
<td>RC</td>
<td>13.83</td>
<td>15.78</td>
</tr>
<tr>
<td>AH4</td>
<td>23.79</td>
<td>25.74</td>
</tr>
</tbody>
</table>

(c) The effect of School Year.

The effects of the school year on the pupils' test performance have been illustrated in the graphs (Figures 6 to 11) and have been carefully analysed and discussed. The general decline in religious attitude with increasing age, which was expected from previous research findings 42 has been demonstrated. An increase in scores for general intelligence and for religious thinking, associated with increase in age, has also been indicated. Religious thinking was shown earlier, in the report of the factor analysis, to be closely associated with general intelligence. The similarity in the pattern of scores for these two variables shown by the factor analysis is confirmed by this result.

The effect of age upon children's religious attitudes,

attitudes to people, behaviour, and thinking has important implications for the curriculum; this will be discussed further in Part Four.

4. Item Analysis.

The third method used for analysing the data was that of item analysis. A "generalised item analysis program" named "GITAP" was available to the researcher at the University of London Computer Centre. Use had been made of this programme for the development of the test instruments during the pilot stages of this research, and it was decided to use it for analysing data derived from the five questionnaires. The item analysis provided three additional areas of statistical information; (1) a cross-check for the scoring procedures used in establishing the raw scores from the questionnaires, (2) reliability measures of the test instruments, (3) individual item statistics (item difficulty and point biserial r). Incomplete sets of data were not used in the factor analysis and in the analysis of variance; for the item analysis, however, it was possible to use scores from 2,096 subjects.

(1) Checking the accuracy of the raw scores derived from the questionnaires.

The scoring of the questionnaires had been completed by a team of assistants using a key of "correct" answers provided by the researcher. The GITAP procedure computed a total score for each subject based on a system of a priori weighting built into the programme. In this way a simple cross-check was provided, and in each case where a discrepancy occurred, the questionnaire was physically identified, re-checked and the difference of score resolved. The basic data of this research, therefore, may be confidently accepted as accurate.

(2) The reliability of the test instruments.

The computer programme provided a measure of the test reliability of the questionnaires based on the Hoyt Reliability Coefficient. The results of the Hoyt analysis provided reliability coefficients at an acceptable level; the highest values of Hoyt R were obtained from the Hyde questionnaires, Religious Attitude Hyde Parts 1 and 2. (See Table 44).


44. Note: RA1, RA2, A1, A2 and R3R (from the Teenage Interests Questionnaire).
TABLE 44
RELIABILITY OF THE QUESTIONNAIRES

Hoyt Reliability Coefficient

<table>
<thead>
<tr>
<th></th>
<th>S.E.</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Religious Attitude Hyde Part 1</td>
<td>1.44</td>
<td>.85</td>
</tr>
<tr>
<td>Religious Attitude Hyde Part 2</td>
<td>1.39</td>
<td>.87</td>
</tr>
<tr>
<td>Attitude Mark Part 1</td>
<td>1.70</td>
<td>.42</td>
</tr>
<tr>
<td>Attitude Mark Part 2</td>
<td>1.67</td>
<td>.37</td>
</tr>
<tr>
<td>Overt Religious Behaviour</td>
<td>1.63</td>
<td>.75</td>
</tr>
</tbody>
</table>

Note: The statistic for Overt Religious Behaviour refers to four items derived from the Teenage Interests Questionnaire.

(3) Individual Item Statistics.
The full details of the item analysis are summarized in Appendix 41. Selected items of interest from the five questionnaires are illustrated in Tables 45, 46 and 47.

45. Appendix 41 - Item Analysis from Five Questionnaires.
<table>
<thead>
<tr>
<th>No.</th>
<th>Statement</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Not Certain</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>It seems to make very little difference whether I believe in God or not.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(RA1, S.3)</td>
<td>05</td>
<td>32</td>
<td>23</td>
<td>29</td>
<td>08</td>
</tr>
<tr>
<td>2.</td>
<td>Belief in God has no interest for me. (RA2 S.2)</td>
<td>04</td>
<td>14</td>
<td>28</td>
<td>37</td>
<td>15</td>
</tr>
<tr>
<td>3.</td>
<td>It is a waste of time to read the Bible. (RA1, S.4)</td>
<td>03</td>
<td>11</td>
<td>23</td>
<td>45</td>
<td>16</td>
</tr>
<tr>
<td>4.</td>
<td>I fail to see any connection between the Bible and my own life.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(RA1, S.6)</td>
<td>06</td>
<td>25</td>
<td>32</td>
<td>26</td>
<td>08</td>
</tr>
<tr>
<td>5.</td>
<td>The more I understand the Bible, the more help I get from it.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(RA2, S.4)</td>
<td>08</td>
<td>28</td>
<td>34</td>
<td>21</td>
<td>06</td>
</tr>
<tr>
<td>6.</td>
<td>My church is the best influence in my life.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(RA1, S.13)</td>
<td>02</td>
<td>07</td>
<td>23</td>
<td>46</td>
<td>18</td>
</tr>
<tr>
<td>7.</td>
<td>Most church-goers seem to me to be narrow-minded and kill-joys.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(RA1, S.16)</td>
<td>04</td>
<td>14</td>
<td>32</td>
<td>35</td>
<td>12</td>
</tr>
<tr>
<td>8.</td>
<td>I think the Church is stupid and futile.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(RA2, S.9)</td>
<td>03</td>
<td>06</td>
<td>16</td>
<td>44</td>
<td>26</td>
</tr>
</tbody>
</table>

Note: S.3 = Statement 3 etc.
TABLE 46
ATTITUDES TO PEOPLE
N = 2,096

S.A. = Strongly Agree  Sl.D. = Slightly Disagree
A. = Agree  D. = Disagree
Sl.A. = Slightly Agree  S.D. = Strongly Disagree

<table>
<thead>
<tr>
<th>No.</th>
<th>Statement</th>
<th>S.A.</th>
<th>A.</th>
<th>Sl.A.</th>
<th>Sl.D.</th>
<th>D.</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Old people should be killed off. (A1, S.1)</td>
<td>01</td>
<td>01</td>
<td>03</td>
<td>05</td>
<td>25</td>
<td>63</td>
</tr>
<tr>
<td>2.</td>
<td>I feel sorry for old people. (A1, S.11)</td>
<td>28</td>
<td>39</td>
<td>19</td>
<td>04</td>
<td>05</td>
<td>01</td>
</tr>
<tr>
<td>3.</td>
<td>Black people should go back where they came from. (A1, S.1)</td>
<td>15</td>
<td>17</td>
<td>21</td>
<td>13</td>
<td>19</td>
<td>12</td>
</tr>
<tr>
<td>4.</td>
<td>What really gets me is why black people can't stay in their own country. (A2, S.2)</td>
<td>11</td>
<td>24</td>
<td>20</td>
<td>14</td>
<td>18</td>
<td>09</td>
</tr>
<tr>
<td>5.</td>
<td>I think that being lonely is one of the worst tortures in life. (A1, S14)</td>
<td>30</td>
<td>38</td>
<td>18</td>
<td>05</td>
<td>05</td>
<td>01</td>
</tr>
<tr>
<td>6.</td>
<td>Loneliness is when you have no-one to love. (A2, S.12)</td>
<td>17</td>
<td>36</td>
<td>21</td>
<td>10</td>
<td>09</td>
<td>03</td>
</tr>
<tr>
<td>7.</td>
<td>Terrorists should be hanged. (A1, S.3)</td>
<td>20</td>
<td>25</td>
<td>20</td>
<td>12</td>
<td>15</td>
<td>04</td>
</tr>
<tr>
<td>8.</td>
<td>Vandals should have their own homes smashed. (A2, S.3)</td>
<td>23</td>
<td>26</td>
<td>20</td>
<td>11</td>
<td>11</td>
<td>05</td>
</tr>
<tr>
<td>9.</td>
<td>Shoplifters should be severely punished. (A1, S.4)</td>
<td>13</td>
<td>40</td>
<td>26</td>
<td>09</td>
<td>06</td>
<td>02</td>
</tr>
<tr>
<td>10.</td>
<td>I think for people with cancer it must be hell. (A2, S.14)</td>
<td>37</td>
<td>37</td>
<td>13</td>
<td>04</td>
<td>03</td>
<td>02</td>
</tr>
</tbody>
</table>

Note: S.2 = Statement 2 etc.
TABLE 47
OVERT RELIGIOUS BEHAVIOUR

N = 2,096

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>Frequencies %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Every Day</td>
</tr>
<tr>
<td>1.</td>
<td>How often do you go to Church?</td>
<td>01</td>
</tr>
<tr>
<td>2.</td>
<td>How often do you go to Sunday School or Youth</td>
<td>01</td>
</tr>
<tr>
<td></td>
<td>Fellowship?</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>How often do you read the Bible?</td>
<td>02</td>
</tr>
<tr>
<td>4.</td>
<td>How often do you pray to God?</td>
<td>16</td>
</tr>
</tbody>
</table>

(4) Discussion of Item Analysis.

The details given in Tables 45, 46 and 47 are of considerable interest but must be considered carefully with the results obtained from the questionnaires as a whole. It is not intended to discuss these points in detail in this chapter, but rather to note them in order that their significance may be explored further in the final chapter of this report.

One matter is extremely clear from the religious behaviour statistics, namely, that Sunday School is of little importance to the majority of children (75% report that they never go) and church-going is hardly more so (47% report that they never attend). In the light of these figures the attitudes to the Church reported in Table 45 are not surprising. On the other hand, although Bible-reading is clearly not a daily activity for the majority of children, (and indeed 38% report that they never read the Bible) it is clear that the Bible is still regarded as having importance and relevance to their lives. That at least would seem to be a fair inference from the fact that 61% disagree that it is a waste of time to read it. The large proportion of daily prayers is surprising (16%) until one looks at the percentage of responses to the belief items (Table 45). Only 37% seem unconcerned about the matter of
theistic belief; it is certain that the matter of belief in God is of interest to the majority of children. It would be wrong, therefore, to conclude from the general results of the Religious Attitude questionnaires that there is a general lack of interest in religion. The "attitudes to others" reported here are of considerable interest. In looking carefully at the pattern of responses to the statements on black people an impression is gained of racial prejudice. For example, 32% agreed that "black people should go back where they came from." Reference to Appendix 41 indicates that this 32% represents the view of 689 pupils out of the total of 2,096. Attitudes to shoplifters were generally severe; 53% (1,147 pupils) agreed that "shoplifters should be severely punished." But 37% (796 pupils) strongly agreed that "for people with cancer it must be hell" showing a more compassionate attitude. When the implications of the statistical findings reported in this chapter are considered within a broader educational framework, there is much from the item analysis of the questionnaires which will be of interest, relevance and value.

5. The Five Hypotheses Tested.

Five general hypotheses were proposed for testing within the design of this research experiment. (See Part Two, Chapter IX, 4.)

H.1. There will be positive and significant correlations between scores obtained on the general intelligence measures and scores obtained on the religious thinking test.

This hypothesis was accepted; positive and significant correlations were found between these two variables.

H.2. There will be positive and significant correlations between scores obtained on the religious attitude and religious behaviour measures, and scores obtained on the religious thinking test.

Three hypotheses are subsumed under this general hypothesis, and concern:

(i) Religious attitude and Religious behaviour.

This hypothesis was accepted; positive and significant correlations were found between these variables.
(ii) **Religious attitude and Religious thinking.**
For this hypothesis the evidence was equivocal. One of the hypotheses did not reach a significant level; the other two, although significant, did not reach point one.

(iii) **Religious behaviour and Religious thinking.**
This hypothesis was accepted; the correlation coefficient, although small (0.18) was positive and it was statistically significant.

H.3. There will be no significant differences between boys and girls on test performance.

H.4. There will be no significant differences between schools on test performance.

H.5. There will be no significant differences between age levels in respect of test performance.

Sex differences, school differences and age differences were all found to be statistically significant, and therefore, these three hypotheses were rejected.
CHAPTER XII
REPORT OF INTERVIEWS WITH FIFTY-EIGHT CHILDREN

1. Preparation and Organisation of the Interview Programme.

(1) Purpose of the Interviews
The main purpose of the interview programme was to obtain precise information of the adolescent’s religious views with regard to belief in God, his image of God, and his perception of the importance of religion in his own thinking. By selecting for discussion two pieces of writing which were likely to be unfamiliar to the pupils it was hoped also that it would be possible to record their responses and assess the various levels of reasoning used in support of their answers. For the analysis a scheme was adopted, in which the responses were recorded and scored according to carefully defined criteria, so that in point of fact the responses showing the greatest maturity and insight received the highest scores. This method worked well and the scoring procedure proved to be basically simple and reliable. Moreover, a strong and positive correlation coefficient derived from the Total Interview Score (i.e. the total score given for responses to both extracts) and the AH4 score, demonstrated the validity of the scoring procedure. It was possible, therefore, to report the responses to the Interview schedule within a framework related to general intelligence, rather than one related to chronological age. In the report given in section 3 below, however, chronological age and sex of the interviewees are sometimes indicated as a point of interest. It is clear that the main purpose of the interview was achieved: much quantitative information about the adolescent’s religious views was obtained, and the differences between quality of response and level of maturity were demonstrated to be related strongly but not entirely to level of general intelligence rather than to chronological age, or to sex. Thus the findings of the Interview Programme give additional support to the finding of the main experiment, namely, that a strong and positive correlation exists between religious thinking and general intelligence, and that these elements in the adolescent’s cognitive framework are best viewed independently from his attitudes to religion and to people.
(2) A description of the interview programme in the two schools.
The interview programme began almost immediately after the completion of the administration of the main programme of tests. Interviews were recorded at School B from February 3rd to February 10th, 1978, and in School A from February 22nd to March 8th, 1978.

(i) School B.
A small room at the end of a noisy corridor was allocated for the purpose of the interviews. It was somewhat bare in appearance, on the whole quite cold, but possessed a small electric convector heater. During most of the interview period it was snowing heavily outside. An additional room, much more comfortable and warm, was given for interviewing the first year pupils who were located in a building one mile away from the main administration buildings of the school, and where it proved to be more convenient to interview them. Both rooms possessed easy chairs for the interviewees as well as for the interviewer.

(ii) School A.
A tutorial room in a corner of the main building was provided for the interviews. The room was normally used by the Sixth Form tutor who generously set it aside for use by the interviewer. On most days the room proved to be an ideal setting. It contained easy chairs and a table. It was away from the main area of the school and was quiet most of the time. The exceptions to this were when the person next door used a typewriter, and the one occasion when an upholstery class for women was in progress at the end of the corridor, when the use of several hammers in unison intruded into the interview situation.

(iii) The Interview Procedure
Twenty-one pupils were selected at random from the class lists of School B, and 31 pupils were selected at random from the class lists of School A. The staff at School A, however, commented that the selection appeared to have thrown up a large number of average, to below-average pupils, and therefore, a further six
children of above average ability, selected by the Head of Sixth Form, were interviewed. A total of fifty-eight pupils was interviewed. Every interview was recorded on a cassette recorder and the pupils seemed unperturbed by this procedure. The interviewer attempted to set the children at their ease and to establish rapport with them. This was successful in most cases, and the results of the interviews suggest that the pupils appeared pleased to participate and willing to give their own views. A standardised procedure was used. Firstly, the "Zorba extract" was read by the pupil as it was played to him on the cassette recorder. He was able both to read it and to hear it. Questions were then given as indicated on the interview schedule. This was followed by "The Long Silence" extract when exactly the same procedure was used. Occasionally a pupil appeared to be unable to understand the basic comprehension questions at the beginning of the Zorba interview schedule, and in such a case the interviewer recounted the main details of the story in his own words, to the pupil. Another problem which occurred occasionally was that a pupil appeared to miss the point of a question. When this happened the question was repeated together with an explanatory comment to assist the pupil to focus his attention on the issue central to the point of the question. Generally, however, the pupils appeared to understand the questions and it was possible to proceed quite rapidly through the question schedule. In most cases the interview was completed after thirty to thirty-five minutes.

(3) The material discussed in the interviews, and the standardized interview schedule.

(i) Two Extracts.
Both extracts contain material which proved to be unfamiliar to the pupils. The Zorba extract was taken from Nikos Kazantzakis; Zorba the Greek¹ and is an imaginative parody on the Genesis account of the creation of man. It contained several statements which the

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¹ Kazantzakis N. - Zorba the Greek, Faber & Faber, 1961, 1974, edition page 158.
children could readily understand, such as "God woke up feeling down in the dumps" and "God looked at it and began to split his sides with laughter" but in general it is a serious piece of writing which is trying to say something basic about the nature of man and possibly about the nature of God. It was this juxtaposition of the serious and the ridiculous which made it an excellent piece of religious writing for the interview. The Long Silence extract was taken from material in Assembly Workshop edited by R. Dingwall. This proved an excellent stimulus for a discussion on the relation of suffering to religious belief, although as is indicated in the report below, it proved too difficult for some of the less able children. The extract is a parable about the end of time and the great judgment. It describes the sense of outrage felt against God by those who have suffered (Jews, Negros, untouchables) and against the idea that God should judge them. The proposal is made that God should be sentenced to live on earth as a man before he could judge them— but then, having judged God as it were, it is suddenly realised that "God had already served his sentence." This extract is more difficult than the first, and in essence it describes the Christian theodicy, namely, that God shares human suffering, and that this sharing is already symbolised in the life and death of Christ. Many of the pupils found this difficult, but the quality of their responses is evidence that they found the exercise of reading it, thinking about it and discussing it to be of interest and value.

The wording of the second extract was slightly simplified and the simplified version used in the interview, together with the Zorba extract, are given overleaf.

"Do you know", Zorba said, "how God made man? Do you know the first words this animal, man, addressed to God?"

"No. How should I know? I wasn't there."

"I was!" cried Zorba, his eyes sparkling.

"Well, tell me."

Half in great happiness, half in fun, he began inventing the fabulous story of the creation of man.

"Well listen. One morning God woke up feeling down in the dumps. 'What a devil of a God I am! I haven't even any men to worship me, and to swear by my name to help pass the time away. I've had enough of living on my own like an old screech-owl.'

God spat on his hands, pulled up his sleeves, put on his glasses, took a piece of earth, spat on it, made mud of it, kneaded it well and made it into a little man. Then he stuck it in the sun.

Seven days later he pulled it out of the sun. It was baked. God looked at it and began to split his sides with laughter. 'Devil take me', he says, 'it's a pig standing on its hind legs! That's not what I wanted at all. There's no mistake. I've made a mess of things.'

So God picks him up by the scruff of the neck and kicks him. 'Go on, clear off! Get out of my way. All you've got to do now is to make other little pigs. The earth's yours. Now jump to it."

But you see it wasn't a pig at all. It was wearing a hat, a jacket thrown carelessly across its shoulders, well creased trousers, and Turkish slippers with red strings. And in its belt was a pointed dagger. On the dagger were the words "I'll get you" engraved on it.

It was man! It really was man. God held out his hand for the other to kiss. But the man twirled up his moustache. Then man said to God, 'Come on, out of the way! Let me pass.'"

(N. Kazantzakis - Zorba the Greek, Faber & Faber, 1961)
At the end of time, billions of people were scattered on a great plain before God's throne. Most were afraid of the brilliant light before them. But some groups near the front talked with great anger.

"How can God judge us? How can he know about suffering?" snapped a young twenty-year-old blonde. She ripped open a sleeve to show a number tattooed on her arm in a German concentration camp. "We had to face terror, beatings, torture, death."

In another group a Negro boy lowered his collar. He had an ugly rope burn on his neck. "I got this for no crime but being black. We were taken from loved ones, we were slaves, we had to work until only death gave us an escape."

Far out across the plain were hundreds of such groups. Each had a complaint against God. The complaint was that God had permitted evil and suffering in his world. How lucky God was to live in heaven where all was sweetness and light. How lucky God was to live where there was no weeping, no fear, no hunger, no hatred. Indeed, what did God know about all that man had to suffer in this world? "God leads a pretty easy life," they said.

So each of the groups sent forth a leader. Each leader was chosen because he had suffered the most. There was a Jew, a Negro, a beggar from India, a cripple - and many others who had suffered pain, and torture, and injustice. In the centre of the plain they talked with each other. At last they were ready to present their case. It was quite simple. Before God could judge them he must suffer what they had suffered. They decided that God should be sentenced TO LIVE ON EARTH - AS A MAN! But they set certain safeguards. God must be born a Jew. He must be poor. His work must be difficult so that even his family will think he is mad when he tries to do it. He must try to explain what no other man has ever seen, heard, tasted or smelled. Let him try to describe God to man. Let him be betrayed by his friends. Let him go to court on false charges, tried before an unfair jury, and sentenced to death. He must know what it is like to be completely alone. He must be left alone by every living thing. Let him be tortured, and then let him die. Let him die a horrible death.
As each leader gave his part of the sentence, loud roars of approval went up from the great crowd of people assembled. When the last had finished pronouncing sentence, there was a long silence. Those who had spoken their judgement of God quietly went away. No one uttered a word.

No one moved.

For suddenly all knew.

God had already served his sentence.

(Ed. R. Dingwall - Assembly Workshop, Darton, Longman & Todd, 1972)
1. This is a story about how God created man. How, according to the parable, did God create man?

2. Did God like what he had made?

3. What did God think he had made?

4. What sort of an animal is a pig? How would you describe a pig?

5. Why do you think the writer suggests that God first of all thought man was a pig? (What is the hidden meaning? It's a parable, the writer is trying to say something, what is he trying to say when he suggests that God first of all thought that man was a pig?)

6. Do you think it is true today that man is like a pig? - Why do you say that? Can you give examples to show what you mean?

7. In the story man is described as wearing a belt. What did he have in his belt? And what was engraved - written on it?

8. Why do you think he had a dagger?

8B. Yes, the writer is suggesting perhaps that man today likes to kill, that is, man likes to hurt people, perhaps to kill people, man is violent and aggressive. Do you agree with that? Give some examples of what man is like today.

9. What happened when God held out his hand for man to kiss?

10. Did man respect God?

11. Do you think man ought to have respected God? Why?

12. Does man respect God today?

13. Why do you say that? Can you give some examples?

14. Does the parable say any other things about man which you think are true about man today? What things?

15. There is a story in the Bible about God creating the world. Do you know that story? Can you tell me the main points of the Bible story?

16. What differences are there or similarities, between Zorba's story and the Bible story?
17. Which story is true? The Zorba story? The Bible story?
18. Why do you say that? Can you explain, give reasons?
19. Do you think God created man?
20. Do you think that it is possible that God created man through evolution? That is, not exactly in seven days, but through the long period of evolution of millions and millions of years?
21. What do you think of Zorba's description of God? Do you think God is how Zorba describes him?
22. Do you believe there is a God?
23. What do you think God is like? How would you describe him?


1. What was the complaint which hundreds of groups had against God?
2. How was the leader of each group chosen?
3. What sentence did they impose on God? That is, what punishment did they decide to give to God?
4. After each had given his part of the sentence, why was there a long silence?
5. What does that mean? What does it mean - God had already served his sentence?
6. This is a parable. It is a story with a hidden meaning. What do you think the writer is trying to tell us through this parable?
7. Do you think that if you had to suffer a lot, perhaps if you were seriously ill, you would believe in God more or less? Why do you say that? Can you explain?
8. Do you know any person who has suffered a lot? Could you tell me what you thought about it?
9. Some people say, that there cannot be a God because if there were a God, there would not be all the suffering and evil in the world. Is that your belief? What do you think?
10. What answer to the problem of suffering does the writer suggest in this parable?

(1) Method of scoring responses.

Eight aspects of the interview questions were awarded points on a scale of 3, 2, 1, 0, and thus, the maximum possible score was twenty-four points. The detail of the "weighting procedure for analysis" is given in Appendix 42; it is a simple scoring procedure which gives the highest marks for accuracy (in the case of questions about the content, i.e. about the details of the narrative) and for maturity of response (in the case of questions about the interpretation of the narrative.)

The interview report form used for transcribing and recording the main details taken from the interview cassette tapes, is given in Appendix 43. Details of Total Scores for the Interviews are given in Table 48.

TABLE 48
INTERVIEWS - TOTAL SCORES

N = 58

(Note: Scores are tabulated according to AH4 Grades A to E, to correspond with the Report in Chapter XII.)

(i) AH4 Grade A. (6 pupils)

<table>
<thead>
<tr>
<th>Serial No.</th>
<th>Christian Name of Pupil</th>
<th>School</th>
<th>Sex</th>
<th>Year</th>
<th>Interview Part 1</th>
<th>Interview Part 2</th>
<th>Interview Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Shaun</td>
<td>B</td>
<td>M</td>
<td>2</td>
<td>10</td>
<td>12</td>
<td></td>
<td>22</td>
</tr>
<tr>
<td>2. Claire</td>
<td>A</td>
<td>F</td>
<td>2</td>
<td>9</td>
<td>11</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>3. Philippa</td>
<td>A</td>
<td>F</td>
<td>3</td>
<td>6</td>
<td>8</td>
<td></td>
<td>14</td>
</tr>
<tr>
<td>4. Tony</td>
<td>A</td>
<td>M</td>
<td>5</td>
<td>9</td>
<td>11</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>5. Andrew</td>
<td>A</td>
<td>M</td>
<td>5</td>
<td>11</td>
<td>12</td>
<td></td>
<td>23</td>
</tr>
<tr>
<td>6. Beverley</td>
<td>A</td>
<td>F</td>
<td>5</td>
<td>8</td>
<td>12</td>
<td></td>
<td>20</td>
</tr>
</tbody>
</table>
TABLE 48 (cont.)

(ii) AH4 Grade B. (11 pupils)

<table>
<thead>
<tr>
<th>Serial No.</th>
<th>Christian Name of Pupil</th>
<th>School</th>
<th>Sex</th>
<th>Year</th>
<th>Interview Part 1</th>
<th>Interview Part 2</th>
<th>Interview Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>David T.</td>
<td>B</td>
<td>M</td>
<td>1</td>
<td>8</td>
<td>7</td>
<td>15</td>
</tr>
<tr>
<td>8</td>
<td>Julie R.</td>
<td>B</td>
<td>F</td>
<td>4</td>
<td>8</td>
<td>11</td>
<td>19</td>
</tr>
<tr>
<td>9</td>
<td>Dianne</td>
<td>B</td>
<td>F</td>
<td>2</td>
<td>10</td>
<td>9</td>
<td>19</td>
</tr>
<tr>
<td>10</td>
<td>Julie B.</td>
<td>B</td>
<td>F</td>
<td>3</td>
<td>9</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td>11</td>
<td>Joanne</td>
<td>B</td>
<td>F</td>
<td>4</td>
<td>10</td>
<td>6</td>
<td>16</td>
</tr>
<tr>
<td>12</td>
<td>Ruth</td>
<td>B</td>
<td>F</td>
<td>3</td>
<td>9</td>
<td>7</td>
<td>16</td>
</tr>
<tr>
<td>13</td>
<td>Brian</td>
<td>B</td>
<td>M</td>
<td>4</td>
<td>7</td>
<td>11</td>
<td>18</td>
</tr>
<tr>
<td>14</td>
<td>Keith</td>
<td>A</td>
<td>M</td>
<td>2</td>
<td>8</td>
<td>11</td>
<td>19</td>
</tr>
<tr>
<td>15</td>
<td>David W.</td>
<td>A</td>
<td>M</td>
<td>5</td>
<td>10</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>16</td>
<td>Nicholas</td>
<td>A</td>
<td>M</td>
<td>5</td>
<td>6</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>17</td>
<td>Deborah</td>
<td>A</td>
<td>F</td>
<td>2</td>
<td>10</td>
<td>8</td>
<td>18</td>
</tr>
</tbody>
</table>
(iii) **AH4 Grade C. (24 pupils)**

<table>
<thead>
<tr>
<th>Serial No.</th>
<th>Christian Name of Pupil</th>
<th>School</th>
<th>Sex</th>
<th>Year</th>
<th>Interview Part 1</th>
<th>Interview Part 2</th>
<th>Interview Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>18.</td>
<td>Teresa</td>
<td>B</td>
<td>F</td>
<td>1</td>
<td>6</td>
<td>9</td>
<td>15</td>
</tr>
<tr>
<td>19.</td>
<td>Sandra</td>
<td>B</td>
<td>F</td>
<td>4</td>
<td>9</td>
<td>7</td>
<td>16</td>
</tr>
<tr>
<td>20.</td>
<td>Lesley G.</td>
<td>A</td>
<td>F</td>
<td>5</td>
<td>9</td>
<td>8</td>
<td>17</td>
</tr>
<tr>
<td>21.</td>
<td>John</td>
<td>A</td>
<td>M</td>
<td>3</td>
<td>9</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td>22.</td>
<td>Julie</td>
<td>A</td>
<td>F</td>
<td>5</td>
<td>9</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td>23.</td>
<td>Nicholette</td>
<td>A</td>
<td>F</td>
<td>3</td>
<td>7</td>
<td>12</td>
<td>19</td>
</tr>
<tr>
<td>24.</td>
<td>Beverley</td>
<td>A</td>
<td>F</td>
<td>5</td>
<td>8</td>
<td>12</td>
<td>20</td>
</tr>
<tr>
<td>25.</td>
<td>David</td>
<td>B</td>
<td>M</td>
<td>3</td>
<td>10</td>
<td>11</td>
<td>21</td>
</tr>
<tr>
<td>26.</td>
<td>Hazel</td>
<td>A</td>
<td>F</td>
<td>5</td>
<td>10</td>
<td>11</td>
<td>21</td>
</tr>
<tr>
<td>27.</td>
<td>Lesley W.</td>
<td>A</td>
<td>F</td>
<td>3</td>
<td>6</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>28.</td>
<td>Grant</td>
<td>B</td>
<td>M</td>
<td>1</td>
<td>7</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>29.</td>
<td>Christopher</td>
<td>A</td>
<td>M</td>
<td>4</td>
<td>10</td>
<td>4</td>
<td>14</td>
</tr>
<tr>
<td>30.</td>
<td>Helen</td>
<td>A</td>
<td>F</td>
<td>1</td>
<td>7</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>31.</td>
<td>Melanie</td>
<td>A</td>
<td>F</td>
<td>1</td>
<td>9</td>
<td>7</td>
<td>16</td>
</tr>
<tr>
<td>32.</td>
<td>Tracey</td>
<td>A</td>
<td>F</td>
<td>1</td>
<td>7</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>33.</td>
<td>Janice</td>
<td>A</td>
<td>F</td>
<td>4</td>
<td>9</td>
<td>11</td>
<td>20</td>
</tr>
<tr>
<td>34.</td>
<td>Mark C</td>
<td>B</td>
<td>M</td>
<td>1</td>
<td>6</td>
<td>7</td>
<td>13</td>
</tr>
<tr>
<td>35.</td>
<td>Neil</td>
<td>A</td>
<td>M</td>
<td>4</td>
<td>9</td>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td>36.</td>
<td>Karen</td>
<td>A</td>
<td>F</td>
<td>2</td>
<td>9</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>37.</td>
<td>Michael P.</td>
<td>A</td>
<td>M</td>
<td>2</td>
<td>7</td>
<td>6</td>
<td>13</td>
</tr>
<tr>
<td>38.</td>
<td>Mark R.</td>
<td>B</td>
<td>M</td>
<td>3</td>
<td>9</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>39.</td>
<td>Peter</td>
<td>A</td>
<td>M</td>
<td>1</td>
<td>6</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>40.</td>
<td>Jane</td>
<td>B</td>
<td>F</td>
<td>1</td>
<td>6</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>41.</td>
<td>Michael H.</td>
<td>B</td>
<td>M</td>
<td>4</td>
<td>10</td>
<td>9</td>
<td>19</td>
</tr>
</tbody>
</table>
Table 48 (cont.)

(iv) **AH4 Grade D. (10 pupils)**

<table>
<thead>
<tr>
<th>Serial No.</th>
<th>Christian Name of Pupil</th>
<th>School</th>
<th>Sex</th>
<th>Year</th>
<th>Interview Part 1</th>
<th>Interview Part 2</th>
<th>Interview Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>42.</td>
<td>Andrew</td>
<td>B</td>
<td>M</td>
<td>2</td>
<td>7</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>43.</td>
<td>Helen</td>
<td>A</td>
<td>F</td>
<td>3</td>
<td>7</td>
<td>6</td>
<td>13</td>
</tr>
<tr>
<td>44.</td>
<td>Andrea</td>
<td>B</td>
<td>F</td>
<td>3</td>
<td>8</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>45.</td>
<td>Linda</td>
<td>A</td>
<td>F</td>
<td>4</td>
<td>8</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>46.</td>
<td>Trevor G.</td>
<td>A</td>
<td>M</td>
<td>3</td>
<td>9</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>47.</td>
<td>Richard</td>
<td>A</td>
<td>M</td>
<td>5</td>
<td>6</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>48.</td>
<td>Claire</td>
<td>B</td>
<td>F</td>
<td>1</td>
<td>7</td>
<td>4</td>
<td>11</td>
</tr>
<tr>
<td>49.</td>
<td>Edwina</td>
<td>A</td>
<td>F</td>
<td>1</td>
<td>5</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>50.</td>
<td>Ian</td>
<td>A</td>
<td>M</td>
<td>4</td>
<td>7</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>51.</td>
<td>Christopher</td>
<td>A</td>
<td>M</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>

(v) **AH4 Grade E. (7 pupils)**

<table>
<thead>
<tr>
<th>Serial No.</th>
<th>Christian Name of Pupil</th>
<th>School</th>
<th>Sex</th>
<th>Year</th>
<th>Interview Part 1</th>
<th>Interview Part 2</th>
<th>Interview Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>52.</td>
<td>Trevor S.</td>
<td>A</td>
<td>M</td>
<td>2</td>
<td>4</td>
<td>9</td>
<td>13</td>
</tr>
<tr>
<td>53.</td>
<td>Angela</td>
<td>A</td>
<td>F</td>
<td>4</td>
<td>7</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>54.</td>
<td>Alan</td>
<td>A</td>
<td>M</td>
<td>3</td>
<td>8</td>
<td>6</td>
<td>14</td>
</tr>
<tr>
<td>55.</td>
<td>Andrew</td>
<td>A</td>
<td>M</td>
<td>1</td>
<td>4</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>56.</td>
<td>Susan</td>
<td>B</td>
<td>F</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>57.</td>
<td>Carole</td>
<td>A</td>
<td>F</td>
<td>2</td>
<td>5</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>58.</td>
<td>Tony</td>
<td>B</td>
<td>M</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

**Note:** See also:

Table 51 - Age - range and Sex of Children interviewed.

Table 52 - General Intelligence, Religious Thinking and Interviews: Comparison of Mean Scores.
(2) Reliability of the Scoring procedure.

(i) Nine interview tapes were selected at random from the fifty-eight which had been recorded. An additional tape was used for a training session with Mr. Knott, the research assistant who was invited to re-score the nine randomly selected tapes. He was given the "weighting procedure for analysis" document referred to in paragraph (1) above. Three scores were used for comparison, namely part 1 (marks awarded for the interview on the Zorba extract), part 2 (marks awarded for the interview on the Long Silence extract) and part 3 (the total score of parts 1 and 2 added together). The same nine tapes were re-marked by the researcher himself four months after the original marking, and the scores compared with (a) the original scores, and (b) Mr. Knott's scores. The tapes included six from School A and three from School B and represented the interviews of four boys and five girls. Serial numbers of the children taken from the data of the main experiment were 20, 470, 870, 2055, 2260, 2405, 2605, 2798, 3195. (These are indicated with an asterisk on Appendix 44.)

(ii) Pearson correlation coefficients were calculated in respect of the three sets of marks and the results tabulated below indicate a very strong measure of agreement. (See Table 49.) The evidence derived from the table of correlations suggests that the marking scheme was sound and reliable.
### TABLE 49
RELIABILITY OF INTERVIEW SCORING METHOD

**TABLE OF CORRELATIONS**

#### Part One (The Zorba Extract)

<table>
<thead>
<tr>
<th></th>
<th>TJM (first mark)</th>
<th>TJM (second mark)</th>
<th>NK</th>
</tr>
</thead>
<tbody>
<tr>
<td>TJM (first mark)</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TJM (second mark)</td>
<td>.737 **</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>NK</td>
<td>.717 **</td>
<td>.965 ***</td>
<td>1.000</td>
</tr>
</tbody>
</table>

#### Part Two (The Long Silence Extract)

<table>
<thead>
<tr>
<th></th>
<th>TJM (first mark)</th>
<th>TJM (second mark)</th>
<th>NK</th>
</tr>
</thead>
<tbody>
<tr>
<td>TJM (first mark)</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TJM (second mark)</td>
<td>.961 ***</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>NK</td>
<td>.928 ***</td>
<td>.961 ***</td>
<td>1.000</td>
</tr>
</tbody>
</table>

#### Part Three (Total Interview Score)

<table>
<thead>
<tr>
<th></th>
<th>TJM (first mark)</th>
<th>TJM (second mark)</th>
<th>NK</th>
</tr>
</thead>
<tbody>
<tr>
<td>TJM (first mark)</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TJM (second mark)</td>
<td>.945 ***</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>NK</td>
<td>.945 ***</td>
<td>.985 ***</td>
<td>1.000</td>
</tr>
</tbody>
</table>

**p < .01  *** p < .001**

Key: TJM = T. J. Hark
NK = Martyn Knott.
(iii) Correlations between Interview Total Scores and Scores obtained on the main battery of tests.

Although fifty-eight pupils had been interviewed, test score data for the total battery of tests used in the research was not available for ten of the pupils. Some of these pupils had been absent during the test programme. Total test score data was available, therefore, for forty-eight of the children interviewed (See Appendix 4A). It was of interest to enquire into the degree of correlation which might exist between the scores given for the interviews and the scores obtained by the pupils on the other test instruments used in the main experiment. It was assumed that the Interview Scores represented a test of religious thinking (as distinct from religious attitude) and it was expected, therefore, that a strong and positive correlation would be shown to exist between the Interview Scores and the scores for Religious Thinking (RC) and for general intelligence (AH4). Moreover, if this were shown to be the case, it was anticipated that low or negative correlations would be demonstrated to exist between the Interview Scores and the remainder of the scores obtained in the main experiment. The correlation table given below confirms these expectations and gives additional strong support to the assumption that the Interview Total Score represents a sound and reliable indication of religious cognition. (See Table 50.)

---

3. Appendix 44. "Total Scores on the Complete Battery of tests for 48 interviewees."
### TABLE 50

**TABLE OF CORRELATIONS BETWEEN INTERVIEW SCORES AND SCORES FOR RELIGIOUS ATTITUDE, ATTITUDE TO PEOPLE, RELIGIOUS BEHAVIOUR, HELPFULNESS, RELIGIOUS THINKING AND GENERAL INTELLIGENCE**

N = 48  
(*** = significance .01)  
(* = significance .05)

<table>
<thead>
<tr>
<th></th>
<th>Interview Part 1 (Zorba)</th>
<th>Interview Part 2 (Long Silence)</th>
<th>Interview Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Religious Attitude Hyde, Part 1</td>
<td>-.25</td>
<td>.04</td>
<td>-.07</td>
</tr>
<tr>
<td>Religious Attitude Hyde, Part 2</td>
<td>-.36*</td>
<td>-.08</td>
<td>-.20</td>
</tr>
<tr>
<td>Religious Attitude Hyde, Total Score</td>
<td>-.33*</td>
<td>-.02</td>
<td>-.15</td>
</tr>
<tr>
<td>Overt Religious Behaviour</td>
<td>-.33*</td>
<td>-.09</td>
<td>-.20</td>
</tr>
<tr>
<td>Attitude to People (Mark) Part 1</td>
<td>-.13</td>
<td>.12</td>
<td>.03</td>
</tr>
<tr>
<td>Attitude to People (Mark) Part 2</td>
<td>-.18</td>
<td>.23</td>
<td>.09</td>
</tr>
<tr>
<td>Attitude to People (Mark) Total Score</td>
<td>-.18</td>
<td>.20</td>
<td>.07</td>
</tr>
<tr>
<td>Helpfulness</td>
<td>.17</td>
<td>.12</td>
<td>.16</td>
</tr>
<tr>
<td>Religious Thinking</td>
<td>.48**</td>
<td>.48**</td>
<td>.54**</td>
</tr>
<tr>
<td>General Intelligence (AH4 Part 1)</td>
<td>.62**</td>
<td>.64**</td>
<td>.71**</td>
</tr>
<tr>
<td>Interview Part 1 (Zorba)</td>
<td>1.000</td>
<td>.52**</td>
<td>.78**</td>
</tr>
<tr>
<td>Interview Part 2 (The Long Silence)</td>
<td>---</td>
<td>1.000</td>
<td>.93**</td>
</tr>
<tr>
<td>Interview Total Score</td>
<td>---</td>
<td>---</td>
<td>1.000</td>
</tr>
</tbody>
</table>
Comments on Table 50.

1. The overall impression from this Table is that only small correlations exist between the Interview Scores and the scores for all the variables except RC and AH4.

2. Positive and significant correlations (.001) are found between all the interview scores and the scores for religious thinking and general intelligence. (RC and AH4).

3. Negative but significant (.05) correlations are found between the scores for Interview Part 1 and the scores for RA2, RAT and RER. The results, therefore, need to be interpreted with a measure of caution.


(1) The children interviewed.

(i) Fifty-eight children were interviewed, thirty-seven in School A and twenty-one in School B, as shown below.

<table>
<thead>
<tr>
<th>Age</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>M F</td>
<td>M F</td>
<td>M F</td>
<td>M F</td>
<td>M F</td>
<td>N F</td>
</tr>
<tr>
<td>School A.</td>
<td>3 4</td>
<td>3 4</td>
<td>3 3</td>
<td>3 3</td>
<td>5 5</td>
<td>17 20 = 37</td>
</tr>
<tr>
<td>School B.</td>
<td>3 3</td>
<td>3 2</td>
<td>2 3</td>
<td>2 3</td>
<td>0 0</td>
<td>10 11 = 21</td>
</tr>
</tbody>
</table>

M = Male  F = Female  Total = 27 Boys  31 Girls.

(ii) In view of the strong statistically significant correlation which has been described between Interview Scores and general intelligence (.71) the report given below will identify five sub-groups based on scores obtained in the AH4 test of general intelligence part 1. Statistics for these five groups are given below.
### TABLE 52
**GENERAL INTELLIGENCE, RELIGIOUS THINKING AND INTERVIEWS: COMPARISON OF MEAN SCORES**

<table>
<thead>
<tr>
<th>Mean</th>
<th>N.</th>
<th>Age</th>
<th>AH4</th>
<th>RC</th>
<th>Interview Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1 AH4 Grade A</td>
<td>6</td>
<td>14.72</td>
<td>36.66</td>
<td>19.75</td>
<td>19.83</td>
</tr>
<tr>
<td>Group 2 AH4 Grade B</td>
<td>11</td>
<td>14.13</td>
<td>33.82</td>
<td>16.64</td>
<td>16.63</td>
</tr>
<tr>
<td>Group 3 AH4 Grade C</td>
<td>24</td>
<td>13.64</td>
<td>24.46</td>
<td>15.61</td>
<td>16.31</td>
</tr>
<tr>
<td>Group 4 AH4 Grade D</td>
<td>10</td>
<td>13.62</td>
<td>17.40</td>
<td>13.77</td>
<td>11.70</td>
</tr>
<tr>
<td>Group 5 AH4 Grade E</td>
<td>7</td>
<td>13.18</td>
<td>7.00</td>
<td>9.33</td>
<td>9.28</td>
</tr>
</tbody>
</table>

*Note: All figures refer to Mean Scores with the exception of N (which indicates the number in the group.)*

(iii) The decision to report the findings in terms of groups of children based on the AH4 score for general intelligence is preferred to the alternative of using the interview scores themselves as the basis. This decision is not one of major significance or importance since the intention of the report in the next section is to indicate the quality of responses given by the pupils, rather than to justify the marking system by which the answers were quantified. Nonetheless, an interesting discrepancy arises from this decision and it needs to be reported. Although the division of groups according to general intelligence provides a coherent framework (note that the highest mean scores for AH4, RC and Interviews occur in the Grade A group, and the lowest in the Grade E group)\(^4\) it is apparent that for some children a discrepancy appears to exist between their AH4 scores and their Interview scores. For example, four children in Group 3 (Grade C) were given interview scores of 20 and over and one girl, Philippa, in group 1 (Grade A) was given an interview score of 14. The problem can be illustrated by reference

---

4. See Table 52.
to Philippa's Interview report form. Philippa had little difficulty in comprehending the details of the two extracts, but her answers generally were of varied quality. She thought the Bible was "true" on the grounds that "it's the well known one." Her answer to the question "what solution is given in the story to the problem of suffering?" shows that she was searching, not very successfully, for a coherent response. "The writer implies that there is a God. God's in heaven, sweetness and light and there is no fear, hunger or hatred." Her next comment was valuable and sensible but showed that she had not grasped the main point of the parable.

"You get through suffering quicker if you can get people to share it with you. They can feel how you feel. But mostly people can't be bothered, they are only bothered about their own lives."

Nonetheless, this answer showed that intuitively she was reflecting on the relevance of the parable for everyday life. It was her failure to recognise the implicit reference to Christ, and her indecisive responses to the "image of God" questions for Part 1 of the Interview, which most affected her total score and made it lower than one might have expected.5

(iv) All fifty-eight pupils co-operated fully in the interview. Their permission was invited to tape-record the interview discussion and this was given in every case. Moreover, the children appeared pleased to have been invited to assist in the research project.


(i) The report will follow the structure of the Interview Scoring scheme and the following eight areas of the interview will be reported and commented upon.

5. Note: The test scores on all variables for this pupil are shown in Appendix 44, Sheet 2. Pupil's Serial No. 2798. It is interesting to note that the AH4 score is 42 which places this pupil firmly in the Grade A group.
i. Comprehension of the Zorba story.

ii. Concepts of human nature.

iii. Truth and the Bible.

iv. Images of God.

v. Comprehension of the Long Silence extract,

vi. Perception of the implicit reference to Christ.


The children's responses will be reported and quoted in the five groups which have already been identified in the previous section.

(ii) Images of human nature, the Bible and God.

The Zorba extract contains three interesting comments on human nature, namely, that man is pig-like, aggressive, and inclined to disregard God. The intention of the interview questions was to initiate a discussion on the appropriateness of these descriptive comments when applied to a contemporary understanding of man. To recognise the story as a parable of human nature requires considerable skill and sophistication, and it is not surprising that none of the interviewees was able to see the analogy without some initial prompting from the interviewer. The following extract from the interview with Tony (16:3 mths) is typical.

Q. Why do you think the writer suggests that God, when he made man, first of all thought he was a pig?

T. Because he thought that the pig would be .. when God had made man the pig was .. it wasn’t what he wanted at all. When he saw it .. he likened it to a pig and then he must have thought, "Oh, it's not a pig I want it's something that's like me."

Q. Yes, that's what you imagine to be the case - now let me ask the question in a slightly different way. It's the writer - somebody who has written this story (it's from a piece of modern literature) so what is the point that the writer is trying to make?

---

6. Note: A fourth comment, the absurdity of man is also contained in the story but was not used in the interview.
After some initial help the majority of pupils found no difficulty in discussing the appropriateness of the description of man as pig-like, violent, and "pushing God out of the way." Many comments were noteworthy for their degree of insight and sensitivity, and this quality of response was a characteristic given by pupils of different age, sex and intellectual level. A variety of examples of man's selfishness and violence was provided with man's desire for wealth, vandalism, terrorism and war being amongst the most common. The question on respect for God was on the whole less productive. Many pupils chose overtly religious people (nuns and priests) as examples of people who respect God, but several recognised that covert religious practice (e.g. saying prayers at night) was also a reliable indicator. Perhaps the real point of the Zorba analogy is that man is able to get on without God quite satisfactorily, that he has no need for God, that twentieth century man must be homo secularis and not homo religiosus. This point was beyond the capacity of most of the interviewees to discuss, although it did occur from time to time in the discussion of the second extract in the context of the place of suffering in religious belief.

It is clear that the Zorba extract is written as a deliberate parallel to the biblical Adam and Eve story. Both stories depict God in grossly human terms, but whereas the god of the Yahwist writer in Genesis inspires fear, Zorba's god is a figure whose impact on the consciousness of man is minimal, and who is easily ignored by man's growing sense of self-sufficiency. When discussing the Zorba extract the interviewees were asked to indicate their perceptions of parallels between the Zorba story and the Adam and Eve story. Many children had difficulty in recalling details of the Bible story, but were able to do so when prompted and helped by the interviewer. The aim of the interview questioning was to establish that both differences and similarities existed between the two stories. Having agreed on this point, it was a straightforward
matter to ask the pupil which story he thought was true. This question was asked in as matter of fact tone as possible, and was followed by a request for information regarding the reasons for the particular response which had been given. The majority of pupils thought the Bible was true, but it was clearly evident that whatever response they gave, few of them had thought seriously about the significance of the concept of truth in this context. By and large, the reasons given were imaginative, intuitive, illogical and sometimes delightfully absurd.

The third main area of interest in discussion of the Zorba extract was to obtain information regarding the child's picture (image) of God. The questions, therefore, initiated a discussion on whether God created man, and on the appropriateness of Zorba's description of God. The intention of this line of questioning was to provide a lead into the question "What is God like?" Perhaps this was an unfair question because it contains the implicit suggestion that there is something to describe. Nonetheless, it proved to be a good discriminator. The less able pupils tended to provide anthropomorphic descriptions, whereas the more able pupils often refused to describe God, or suggested terms such as "Spirit" or "he is everywhere" in response to this question. Children who had already expressed a measure of agnosticism or atheism (and these were very few) were not asked this question.

(iii) Human suffering and belief in God.

The second extract, entitled "The Long Silence" caused much more difficulty than the first. Although most of the pupils were able to recall the main details of the content of the story, it was generally the more able pupils who were able to see the main point of the parable and to discuss its significance in connection with their own perceptions of the meanings of suffering. Some pupils, particularly the less able, were clearly baffled.
The Long Silence extract contains a clear, unambiguous but entirely implicit reference to Christ. The question "What does it mean - God has already served his sentence?" discriminated clearly between the able and the less able children. For example, five of the six pupils in Group 1 perceived the reference quickly, whereas fourteen of the seventeen pupils in Groups 4 and 5 did not perceive it.

In discussing the meaning of the parable and its application to the problem of suffering and belief in God, a variety of levels of response was noted. Less able pupils tended to focus their answers on details of the parable, but many pupils were able to abstract ideas from it and to discuss the problem in more general terms. A common view (perhaps unexpected) was that God was not to be blamed for suffering, and many pupils, therefore, did not find suffering as a reason which should count against religious belief. A minority view was that suffering was of benefit to mankind in some way. The general impression was of a God who allows suffering, understands suffering but does not cause it.

(3) Detailed responses and comments extracted from the interviews.

(i) Comprehension of the Zorba story.
Most of the pupils apart from those in Group 5 (the AH4 Grade E scorers) experienced little difficulty in recalling the details of the narrative. The questions were intended to help the children to focus on the main points of the narrative before proceeding to a discussion of its meaning and interpretation. The story was simple, clear and humorous and the interviewees enjoyed it.

(ii) Concepts of human nature.
(a) Most of the children, but after initial prompting, were able to grasp the point of the analogy and to provide examples easily in response to the question "Do you think man is like a pig today?" The children in groups 4 and 5 however, found it hard to allow their attention to go beyond the physical details of the pig, and
consequently they found it hard to see the point of the analogy. The following examples were provided in quick response to the question.

**Group 1.**
euves, murderers, but not everybody is greedy (Tony)
wealth, weapons, power. But not all people. Men want more pay. (Claire)
wanting more money, poorer people are more contented (Philippa)
wars etc., but not all are greedy (Andrew), Most people are out for what they can get, for example, money. But not everybody. (Beverley) It just depends, for example, whether you are a priest or a bully. (Shaun)

**Group 2.**
General Amin of Uganda (David T.) Miners on strike (David W.) Hitler wanting to rule the world. (Deborah) There's a lot of suffering and people don't care about anyone else. (Julie)

As was noted in Group 1, some pupils were not prepared to accept the analogy without qualification. For example:

It just depends from whose point of view (Joanne) It's not true that we are greedy. (Brian) Some more than others. (Deborah) Some are but not a lot are. (Dianne)

Some pupils in this group focussed their responses on the details of the story, and this was a characteristic of the responses of the less able children, particularly of those in Groups 4 and 5; For example:

Man did not look very nice. (David) God were creating man for fun. (Joanne) A pig is nothing to be proud of - man's appearance, his environment! (Ruth)
Group 3.
A similar pattern of responses was observed in this group. A frequent response was that some men are greedy but that this is not true of all men. For example:

In some ways he is and in some ways he isn't. Man treats his fellow men as pigs. (Michael M.)
Some men are dirty and greedy; but some are O.K. (Melanie)

Other examples included, hi-jackers, robbers, riots at football matches, the National Front, fights outside discos, Northern Ireland and Vietnam. Some pupils seemed unable to leave the details of the story; for example, "man looks like a pig!" and (Mark C) aged 11:8 months could not see the point at all - Man is not like a pig. But men are still killing things off, e.g. hunting animals.

Groups 4 and 5.
These children found it difficult to see the appropriateness of the pig analogy as an image of human nature:

No, man is not like a pig. A pig crawls and rolls in the mud. Man is not dirty but some men are greedy. (Claire)
Because he had hind legs (Andrea)
No, not every man is right bad. Hooligans but not pigs. (Andrew)
Some are fat, mucky etc. (Edwina)
Some men don't bother to tidy themselves up (she concentrates on the physical aspects of pigness!) sloppy, the way they dress. (Susan)
Some are like pigs and some are like monkeys. It's just like us really - they've got mouth, teeth, etc., legs, ears - but we haven't got bacon. (Tony aged 13:5 months)

No man is not like a pig. He dresses up and eats meals properly. (Angela)
The most perceptive answer was given by Linda: God had an image in his mind thinking that man was a pig. But man is not like that. Man is clean - but there are a lot of people who do want everything. A lot of people are kind and thoughtful. (She was clearly unhappy with the analogy as being entirely appropriate!)

(b) In response to the suggestion (Interview Question 8B) that man likes to kill today, some interesting responses were elicited:

Group 1.
Needless killings, hostages. All of us have violence within us, but some people express it all of the time whilst others manage to keep it hidden. (Tony)

killing for wealth (Claire)
The capacity to kill is probably in us all but more in some people than others. Some people reason, others use violence - to get their own back. (Philippa)

Rhodesia (Andrew)
Bombings in Ireland. All of us deep inside have the capacity to be violent (Beverly)

It just depends. A little kid playing, or a soldier stabbing a bloke to death in trenches, terrorists. (Shaun)

Group 2.
Murder and stealing and killing animals (Julie R.)
Most people have some aggressiveness in them (Dianne)

hi-jackers and Northern Ireland. (Deborah)
vandals, killing animals, bad temper (Julie)

Several pupils qualified their answers carefully:

Violence is not an inherent part of our nature. (Joanne) and

Man is only aggressive if people make him aggressive - if he is provoked. (Ruth)

To some extent - Amin, criminals. Not a high proportion of English people like to kill. (David)
Many humans like to work for others as well as for themselves. (Nicholas)
It is generally true but not all show violent tendencies. (Brian)

**Group 3.**
A perceptive comment was given by Helen (age 12;1 month) who observed; Men kill for all sorts of reasons, e.g. terrorists, depressed, black versus white. (This pupil received a high Interview score even though her A.1.4 grade places her in Group 3.)

Some men are aggressive, but this description sounds like a cave man, not like modern man. Only the minority is violent. (Hazel)

A characteristic of some pupils in this group, as noted earlier was an inability to see the point of the analogy. For example, Peter (11;8 months) said "They just push you around." When asked to elaborate on this, he said "I don't know." When pressed further, he agreed that man is aggressive - "they just push you around and act big. For example, a man on our road."

**Group 4 and 5.**
Pupils in this group found little difficulty in providing examples of man's aggressive nature, but several pupils qualified the statement by suggesting that not all men are violent. Examples given included:

Bombing families what have done note.*(Trevor)
Fighting in parks, in boozers.* (Susan)
Sometimes he is violent when picking on his wife and children. (Angela)

A perceptive answer was: There may be some that gets everything they want and then they don't get it, then they turn to violence - I think that's what starts it, people who get everything they want. (Linda)

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* Note: Local dialect transcription is given here.
(c) A variety of perceptions was revealed by responses to the question "Does man respect God today." It is possible that the word "respect" is unusual in this context. One speaks of reverence towards God, or believing in God, or trusting in God, but one seldom uses the word "respect" in relation to God. The word "respect" however, is familiar to the adolescent and the responses obtained from this question are indicative that the question was meaningful. Most pupils interpreted the question in terms of belief, so that respect for God was indicative of belief in God, praying and church-going.

**Group 1.**
If there is a God, and I think there is, then we should respect him. (Tony)
Blasphemy case on T.V. people say "O God" and that's blasphemy. But church-going, helping people in trouble - that's respecting God. (Claire)
A few people do. But there's a lot of suffering in the world and people can't believe that he actually exists. (Philippa)
keeping laws of humanity. (Andrew)
Not as they used to do. In old films - everybody went to church. Nowadays, Sunday is an ordinary day. Non-church-goers probably don't respect him. (Beverly)
It depends - those who worship God, and those who don't bother - who leave him out of their lives. (Shaun).

**Group 2.**
A similar pattern of responses, to that of Group 1, was given in response to this question by the pupils of this group.
Helping others is a way of respecting God. (Nicholas)
Not the younger generation - not so much as the older generation. A lot of the younger generation do not believe in God. I used to go to church as a server but not many young people were there. I didn't listen to what the priest was going on about. (David)
Most people think it is a load of rubbish. If you talk about him or go to church they laugh at you. (Julie)

Some ... think God made everything and they're lucky to be alive, and some men think oh he's note.* (Dianne)

We wouldn't be in the mess we are in now if people respected God today. People can worship him at home (Julie R.)

Several pupils suggested that church-going was an indication of respect for God. e.g. "Vicars, my old headmaster - they read the Bible, pray, and go to church. (David)

Group 3.

Most people respect God underneath. (Julie)

Some don't go to church but respect God - they pray at night. (Karen)

Some do and some don't. Some read the Bible and do the things they think God wants them to do, and others say there isn't a God and that they don't believe in him. (Janice)

Probably because when Jesus were born, God's son, he came down then; people think if he don't come down now that he does not exist any more so why should they follow him and worship him and that. So people don't respect him - some do respect God - they go to church and worship him.*(Mark)

Man does not remember God. You don't know anything except from the Bible and that might be fable. (Hazel)

Going to churches regular. But some are dead against him.*(John)

Some think it's a load of rubbish and don't believe in it. (Neil)

Everybody should have their own decision. It should be up to them, it's a matter of choice. You don't have to go to church to believe in God. (Lesley)

Some people who don't go to church still respect God - by the way they talk about God. (Beverly)

Being kind and nice is a way of respecting God. (Helen)

*Note: Local dialect transcription is given here.
Respecting God is about how you think and believe. (Lesley)
Sunday School teachers are a lot kinder; they do. (Teresa)

Group 4 and 5.
Similar quality responses were obtained from children in this group to those obtained from the other groups.

Some do - nuns, preachers and vicars. (Andrew)
Some can respect God by not going against him, worshipping him, having sins forgiven. (Richard)
God really made us. Some are big-headed and don't believe in him. (Respect for God?) - being good and doing note bad.* (Ian)

Four pupils in this group, however, found it difficult to grasp the point of the question. They were Linda, Claire, Angela and Susan. For example - If it weren't for God they wouldn't be here. He helps them. (Susan)

(iii) Truth and the Bible.

Group 1.
Probably the most thoughtful answer in this group was that of a boy aged 16 years and 6 months:
Both are fairy tales. When people started religion you had to explain it to them in simple terms that they could understand. But in view of science and evolution, neither is true. (Andrew)

Another thoughtful answer referred to evolution also. Shaun aged 12 years 5 months first of all said that he thought the Bible was the true story, and then he corrected his statement to say that he didn't know:
In Bible he made woman- there's note about this here. It might have been evolution, the creation of man. But the Bible might be true because a day might be a few million years and man could evolve then.*(Shaun)

The other answers in this group were less mature, more egocentric and intuitive:

* Note: Local dialect transcription is given here.
Philippa first of all said she didn't know - "I don't know because I don't really believe in God so neither of them.

After pressing her to further thought she said,

The one I think is true is the other one (i.e. the Bible) because that's the more well-known one - I've never heard of this before. (Philippa)

Other answers included:

The Bible must be true because God cares more than he does here. He wanted to make man not a cast off. (Beverly)

The Bible is true because there's more fact in that (i.e. in the Bible) This (i.e. Zorba) has been made like something's that happening now. It's true the way he made Adam - it seems the most sensible one - you couldn't make it out of mud. Further, it's what people have said - it's always been there (the Bible). (Claire)

Tony, aged 16 years 3 months was perplexed. At first he chose the Bible and then changed his mind:

... because I know the Bible story, because I know that better. That is truer. I had an idea of what's true, and I've never questioned that. But perhaps this one! (Tony)

He finally decided that both might be true on the grounds that the Zorba story "showed today's context" and "seemed modern."

**Group 2.**

Nine of the eleven children in this group suggested that the Bible was true, but several were less sure when pressed to give reasons. None of the pupils recognised that the question of truth depends on choice of criteria, and on the way in which truth is defined. Most pupils appeared to interpret the question in terms of whether the creation of man actually occurred in the way described in the stories. At least three children, however, showed that they were searching for criteria to answer the question:
This says he is cruel: that says he is kind. When man ate apples God didn't like him any more . . . This has a bit of truth because before they ate the apples he was treating them cruel. The Bible has more truth in it. (Keith)

Can't really know. There isn't any outstanding evidence that it happened like that. Evolution, gases, rocks etc. So nobody is really sure. But there are similarities with men today - e.g. the way man reacts. Man likes to be in command, self-sufficient (Zorba) and in the Bible story Adam and Eve are afraid. (Which true?) - a bit of both. (Deborah)

The Bible story is more realistic - I'm looking for proof and there's more proof in the Bible story. God doesn't seem to me as though he would go around anything like this one - moulding something out of mud. (David W.)

In general, the answers tended to focus on the plausibility of the details in the stories and the reasons given to support the choice of the Bible story as true, were intuitive and illogical.

The Bible story is more true because he wouldn't have been wearing clothes and a dagger etc. The Bible story might not be true - but it is more like what we know than the Zorba story. (Diane)

If any, the Bible - but I don't believe either. But the Bible is more reliable. Someone wrote it that were sensible and had some knowledge. It was not wrote for fun. The Genesis story seems more respectable - coming from the Bible, because learned men obviously wrote it.* (Joanne)

It's hard to say because God's story (Bible) is hard to believe and this one is harder. I feel the Zorba story just couldn't happen. If God did create man it was the way it was told in the Bible. (Brian)

This one, Zorba, seems more fact than the Bible by the way the man doesn't respect God in the world as it is today. The man doesn't worship him as God. But the Bible is true because the Bible suggests man who worships God. (Nicholas)

* Note: Local dialect transcription is given here.
The Bible is true because I think it is more like God to say what he wanted and get what he wanted and not to be angry if he got what he didn't. (Julie)

The Bible is true because in the Bible the people were witnesses - and because of Jesus. God would not have sent his Son down if he thought people were pigs. (Julie R.)

The Bible is true but I'm not sure. At the beginning of the world there weren't Turkish slippers because there weren't Turkey. (David T.)

An answer of quite different quality, although perhaps with something of the tone of Julie R's answer was given by Ruth:

The Bible story is more true. Most things that are written in the Bible are coming true. That's what my Mum and Dad say. They say, Ah, I like hot weather. The weather's coming bad. Noah's ark - there were floods and now there's all snow and everything. (Ruth)

Group 3.

The responses given in this group were very similar to the majority of answers noted for Group 2 above. Seventeen of the twenty-four pupils thought that the Bible was true but intuitive and illogical reasons were given to support this viewpoint.

It's longer. It's got more facts and truths in it. Man is cleverer than a pig, isn't he? The Bible has been out longer. (Julie)

The Bible story might be true because he made woman out of man. (Karen)

It sounds like it. (Melanie)

In the Bible story there were already two people but if there were only one pig then he couldn't have children like. If it were a pig then it weren't have been able to tell this man Zorba how it happened. This man would have to be God or something like that.* (Mark)

He wouldn't create man wearing clothes. (Sandra)

Because it were written centuries ago.*(John)

I can't imagine God saying "I've made a mess of things". (Beverly)

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*Note: Local dialect transcription is given here.
Zorba is not as good as the Bible story. It is a bit far fetched (Nicholette)
I don't believe in the mud idea. (Helen)
Zorba could be made up. (Lesley)
It seems true. You couldn't make a man out of earth. (Mark)
The story in the Bible is true because God didn't make a pig. (Jane)
Zorba seems different; it doesn't seem right. (Teresa)
Because the disciples wrote it. (Grant)

Two boys, Peter and Christopher, suggested that the Zorba story was true. Christopher's criterion was "today's standards." He said

By today's standards Zorba is true; the dagger (violence) is not mentioned in the Bible. (Christopher)
Peter's answer was less certain; Because he has described all the things. (Peter)

Five pupils were unable to decide which was true.
Lesley, echoing the criterion suggested by Christopher above, said; They are more or less the same. But Zorba is more true, that is, it describes what happens today. (Lesley)

The other pupils appeared to be unbelievers, and this influenced their responses:

Neither is true. I don't believe in it. I don't think there is "ote" like God. (Neil) (i.e. neither story relates to what he believes to be true.)
Don't like either. The Bible seems more real. The Bible is more scientific. A bit of both. I wouldn't say that the Bible is true and I definitely wouldn't say this is true either. (Hazel)
I don't know really. Scientists say that it was gases and things like that and a lot of this isn't true. (David)
None of 'em. How does somebody know there is a God? Nobody has ever seen him. Nobody can prove that there is one. Nobody can't disprove that there isn't one. (Michael)

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1. Note: The local dialect is transcribed here. ("Ote" means "nothing") In transcribing the interviews the children's literal words are reported.
Group 4.
All the pupils in this group thought that the Bible was true but when pressed to give reasons, intuitive thinking was clearly in evidence.

It's more friendly, there's a dagger in Zorba. In the Bible God was friendly. In Zorba, God was violent, he kicked him. (Trevor)
The Bible story was passed down from generation to generation. (Claire)
Making man with mud is stupid. The Bible sounds more sensible. (Rib out of Adam?) Yes, mor sensible, but I still don't know how this world came. (Andrea)
Having glasses? They couldn't have glasses in them days. (Ian)
The Bible - lots of people have read it. It's famous. (Helen)
You can't bake a man. (Christopher)
It (Zorba) is more imaginative than this - better - not as though you'd imagine it like it were true - I don't really believe this. I believe the Bible like - and I don't think God would throw man away when he'd just created him. (Linda)

Group 5.
Only one pupil in this group replied that Zorba was true. He supported this with the firm assertion: "It's true he made him like that - baked in sun and put him on earth. That's how we were made." A few minutes later on, however, in contradiction to this he suggested that man was created through evolution! (Alan)
Another pupil responded quite simply: Because God wrote it! (Trevor)
Another pupil was completely perplexed and responded: Because it's the Bible! (Andrew)

(iv) Images of God
Group 1.
With one exception, the pupils in this group tended to describe God in abstract terms.
Andrew was uncertain and possibly agnostic, he replied, I don't know - a force for good in the world
Shaun suggested:
God is a spirit, but there's no proof or evidence for you to see.*
He explained his view with the interesting suggestion -
"like everywhere, but he's not there. He's there if you want him to be. But if you ignore him he isn't there."
Other responses in this group were:
Not like we are - a spirit who is all around. He is everywhere. (Claire)
This pupil continued, however, with a more concrete image:
Because there is no heaven he couldn't live in the ground (Claire)
A 16 year old girl in this group described God as:
Not just one person. Everywhere - you can't see him, he is all around us. (Beverly)
She also continued to elaborate, however, with a more concrete image, by stating; "Dressed in white - I've never thought really."
Tony aged 16 years 3 months who in other respects gave mature answers of considerable insight, described God as:
An old man with a white beard and a flowing robe. (Tony)
This traditional Bible-story-book picture of God, was encountered frequently in the descriptions given by children in the other groups, as will be reported below.

**Group 2.**
Mature answers were given by several pupils in this group;
I've no idea what God looks like. No-one knows. If there is a God he knows what he is doing and we should not describe him. (Ruth)
I wouldn't describe him as anything really. It's like lightning - because no-one has ever seen him and he is supposed to be in us all. (Julie)
He's all around. He cares about people and animals. But he punishes as well for doing wrong. What God's like I don't really know - nobody knows. (Deborah)

* Note: Local dialect transcription is given here.
We haven't seen him so we don't know . . . he might be in heaven looking after all them whose dead. *(Dianne) I don't think he would look like a man (Joanne) More concrete imagery was used by several children: Like a spirit that can float around. (David W.) Looking like a Vicar - black robe, white collar like Vicars do - and he is just there all around. (David) A man sat on a chair on a big throne and watching over everybody and protecting them . . . fancy robes, white beard and white hair. (Julie) Many living things - as an ordinary man. (Nicholas) A middle-age king with a crown sat in a throne-room. (Brian) A big bloke with a long beard - but not like anybody today. (Keith)

**Group 3.**

A similar pattern of responses was observed in this group as was reported for Group 2. Several pupils responded with abstract descriptions but many described God in physical terms. Some pupils emphasised God as a spirit and others stressed the attributes of caring and kindness. For example, many of the maturer answers were as follows:

He knows all right ways. He has note wrong with him. He's not a statue; he's a spirit. It's like belief. There's no saying whether it's true or not - it's what you believe.*(Julie)

I don't know. Gentle. (Karen) Kind and giving - and he punishes. But I can't picture him. (Melanie)

Someone who looks after you and cares for you. (Janice) Great, almighty. Not there but he sees everything. He's everywhere all the time because he knows everything. (Sandra)

I can't describe God - but I don't think he would be like this - wearing glasses! (John) I can't describe God because I can't believe in God. (Christopher)

* Note: Local dialect transcription is given here.
I'm not sure. He could make himself into different forms and come down in different forms. I don't know what he really looks like. Sorry. (David)
Everyone describes him different. I would like to see him first to describe him. (Michael)

Some pupil's answers combined the abstract with the concrete, for example:
He treats everyone as his sons and daughters. He protects them. I can't imagine him - perhaps as a voice? I imagine him to look like Jesus did. (Lesley)
I imagine him as a person. (Beverly)

Many of the answers employed concrete imagery and described God as a man:
Kind and peace-loving. I used to think when I was little he was one of the clouds. Now I think he is all over the sky. All the sky is God. The clouds move around and all the sky can see the earth. (Tracey)
Beard, long white cape. (Michael and Nicholette)
Dark-haired, beard, white robe - from the picture you see in the Bible. (Helen)
Quite tall. Wavy hair, brown beard, gown. (Lesley)
Just like a man - a good man. (Mark)
He doesn't swear or anything like that. (Jane)
Tall and hair down to his shoulders, beard. In all the books nearly, at school, he's got a beard. (Teresa)
Beard, white cloak, quite small. (Grant)
Weird clothes. Doesn't wear things like nowadays. He makes them himself out of rags - like a shirt without sleeves - head like Frankenstein- curly hair. (Peter)

Groups 4 and 5.
Only one pupil from Group 5 attempted to describe God in terms of abstract characteristics and attributes:
He is kind, wonderful, helps the starving, brings the sun out, shines the sun on the crops. (Alan)

Three pupils from the point of view of unbelief refused to describe God.
One pupil from group 4 responded with both an abstract attribute and also with a firm anthropomorphic
description:
He is creator of all things. He has blonde hair, blue eyes, and is just sat there watching things happening around him. (Richard).

Other descriptions were:
He has a moustache, beard, and black, short hair. (Carole)
Grey hair, dressed in white, oldish, white cloth around him like a dressing gown. (Ian)
All dressed in white like angels. An old man with a long white beard. (Edwina)
A big fellow. A big man - beard and things like that - he's got to be old, hasn't he? (Helen)
Long white cloak - I don't think he'll have one of those round things on his head. (Linda)

One pupil provided a naturalistic response:
God is wind, fire, rain, snow. (Tony, Group 5.)
and then he added a bit of Christian orthodoxy as an after-thought,
The Holy Ghost (Tony)

(v) Comprehension of "The Long Silence" extract.
This piece of writing was understood by the pupils in Group 1 without any difficulty. Six children in Group 2 experienced difficulty with comprehension of the main details of the narrative, and the majority of the children in the other groups experienced varying degrees of difficulty. One boy in Group 4, and two girls and one boy in Group 5 showed almost complete lack of understanding, and in the case of these children the story was re-told by the interviewer before proceeding to the questions about content, and then about interpretation. This extract, therefore, was a better discriminator between the able and the less able pupils than was the first extract.

(vi) Reference to Christ
For an adult, familiar with the basic story of Jesus Christ, it would be easy to recognise the implicit reference to Christ in this story. But only a small proportion of the total sample of interviewees was able to recognise it and this tended to be pupils with the higher intelligence scores. Nine of the
Seventeen pupils in Groups 1 and 2 recognised the reference and of these five were from Group 1. In contrast to this, only eight children out of the forty-one children in Groups 3, 4 and 5 were able to see the reference. Some pupils, however, referred to Christ intuitively but were not able to give reasons. For example, "I don't know when he were alive, but it were a long time ago." (Dianne Group 2) The responses of three children in Group 5 are of interest. Two of them sensed the reference but were unable to identify it precisely. Andrew suggested that the reference was about crucifixion but was unable to elaborate upon it. Carole, in response to the question "What sentence did they impose upon God?" had replied, "He makes Mary have a son" but she was unable to identify precisely the reference to Christ. Trevor, however, whose interview showed a tendency for him to contradict himself, was able to spot the reference. His focussing in on the reference is worth giving verbatim:

"He'd already done his time.
When?
In heaven - when he was poor and a Jew, when he came down, when he was born in a stable - Jesus."

(vii) The Meaning of the Parable - The Christian Theodicy
The point of the parable is that God shares and understands human suffering. This is the Christian solution to the apparent injustice of human suffering, and it is based on the religious insight of the significance of the life and death of Jesus Christ for individual faith in God. This is a theological matter of considerable complexity, although the point is well made in the parable under discussion. In questioning the children on the meaning of the parable it was the intention to note firstly, whether they could recognise what the parable was trying to say, that is, whether they could recognise the theological point that the parable was attempting to communicate. Secondly, it was the intention to discuss with the pupils the wider application and significance of the parable within the context of human suffering. (This is discussed below in Section viii). It was anticipated that the majority of children would experience difficulty
both in understanding the meaning of the parable, and in discussing its general application. Whilst it was certainly the case that the more able children provided the answers of greater accuracy and maturity, a wealth of insightful comment was provided by children in all groups, and this is reported below in this and in the subsequent section.

**Group 1.**
That we have to suffer to find God. (Shaun)
God knows what man is like. God has been through suffering and there is not much he can do to prevent it. Man must go on hoping - that when he gets to heaven he will be all right. (Claire)
God knows how we suffer because he's already been down as a man; so they can't complain because he has been through it all. (Beverly)
That we shouldn't expect others to suffer as we have suffered. (Tony) (TJM's paraphrase)
People complain that there's suffering and evil in the world. How can there be a God? He's let it happen. It shows he's already been to earth and suffered. God understands suffering. (Andrew)

**Group 2.**
One level of response was to focus on a particular aspect of the narrative, but not to discuss the overall significance of the parable. For example:

He (God) has had to look after the people that he created. (Joanne)
Men should not suffer. (David W.)
You should think before you say something because you might hurt people. (Deborah)

Some pupils were capable of relating the parable to everyday experience, although not grasping precisely the parable's theological point. For example:

Some people believe in God but they blame him for everything that has happened. But some people do believe in Him. (Brian)
Today people might start wondering why there's wars going on. Why doesn't God stop it? (Ruth)
We should not judge God but let him judge us. (Dianne)
Although some of her answer is contradictory, this girl captured the precise meaning of the parable:

God in the image of Jesus has been and knows what it's like to live on earth. God has nothing to do with suffering, He is suffering himself. (Julie)

A perceptive response was given by another girl:

Although we don't know it, God is trying to share his troubles with us. (Julie R.)

Group 3.

Four pupils clearly grasped the meaning of the parable. People say, if there is a God he wouldn't allow all this suffering. When Jesus was on earth, God really went through suffering, so he really does know what this suffering is all about. (Beverly)

We blame God when anything goes wrong and say he doesn't know, but he does really - he knows how we suffer, and he has suffered as well. (Nicholette)

You must not blame God because he has suffered as well. He knows all your feelings and understands and sees all you've suffered. (Janice)

You haven't got to complain about suffering; you've got to put up with it. (David)

Several other pupils were able to provide perceptive interpretations:

All suffering that's going on in the world - there's always people who are being tortured etc. - and they say God doesn't know what it is like - so God if he wants to stop it - he must find out what it is like himself. (Michael)

We should respect God, even if we get hit, or beaten, or become blind - we should still respect God. (Tracey)

God made the suffering but also helps. (Melanie)

God is higher than all of us and we should not deny him that fact - and that he suffered. (Helen)

God knows best. When there's torture there must be a reason. God is looking down on everybody and he's seen what's happening even if they die. There must be a reason for letting them die. He's watching and he helps. He lets happen what they deserve. (Julie)
Man is not always right. God DOES know about suffering, because he has been through it. (Hazel)

Several pupils gave answers which showed that they were attending to details of the story rather than to its more general application to human experience:

People don't know how lucky they are, really. (Lesley)
We are lucky to live in houses and not to be tortured. (Karen)
They didn't think it fair that they had been chosen to suffer. (Lesley)
They were criticising God because he hadn't suffered. (Neil)
People are set to accuse others without thinking first. (Christopher)
Some people were talking about God and saying all these hurtful things that he had never come to help them and that he should. (Teresa)
Don't judge someone before you've looked close at them. (John)

Groups 4 and 5.
None of the children in these groups grasped the full meaning of the parable and the answers tended to focus on the detail of the story rather than on its meaning.

For example:

You've got to put up with suffering. (Andrea)
But she continued: You've got to be tortured. (Andrea)
God has suffered and been tortured. (Helen)
He's already gone through all this when he was making them (and then more perceptively) there can be a meaning . . . that God must go through it. You've got to put up with it - but there can be a meaning. (Linda)

There shouldn't be suffering and misery for people.
You shouldn't take it out of other people - whether they are rich or poor. (Trevor)
People should not be allowed to suffer (Richard)
If God saved all men and did stop all these wars, the world would be too crowded - and there'd be no room for other people, and there would be more conflict between other people and there would be nowhere to live.
Man and God have suffered. Man suffered in starving etc. and God suffered in making men who were evil - possibly he was a bit ashamed. (Andrew)

It's about God and all he's done. It's about people who suffered. God's got no fears. God don't get punished. *(Trevor)

God has something to do with it because they want God to suffer. They want him to see what's happening. (Ian)

Four pupils (three from Group 5 and one from Group 4) who found considerable difficulty with comprehension, not surprisingly found the possibility of discussing the meaning of the parable extremely difficult also.

(viii) Human suffering and religious belief.

Three questions in the interview schedule enlarged the discussion of the parable into a discussion on belief in God within the experience of suffering:

If you were seriously ill, would you believe in God more or less? Do you know a person who has suffered a lot? Some people say that there cannot be a God because if there were a God there would not be all the suffering and evil in the world; is that your belief?

It is difficult to categorize the various responses which were given. The overall impression is one of serious and thoughtful comment. For some pupils the problem of suffering counted against belief in God. Many expressed the view however, that man caused his own suffering and there was a general reluctance to blame God for it; the image of God, therefore, was one in which God was either powerless to do anything about suffering or one in which he simply allowed it to happen. Occasionally Adam and Eve got the blame reflecting perhaps some specific Christian teaching on original sin. Several pupils discussed the questions in relation to prayer and at least one pupil resolved the problem by a simple dualism in which the Devil got the blame for the suffering - or at least for the more extreme kinds of suffering.

Before giving the report of the pupils' comments a philosophical point needs to be mentioned. In discussing the question of suffering and religious belief the word

* Local dialect transcription is given here.
"evil" was sometimes used. This point was not questioned by any pupil and for the purposes of the following report, therefore, suffering and evil are regarded as synonymous. It is clearly the case that evil and suffering are not the same, and that perhaps the real problem for religious belief is that caused by evil rather than by suffering. It is also clearly the case, however, that suffering may often be regarded as the outcome or manifestation of evil, and it is in this sense that both words were used in the interview.

Group 1.
I'm not sure. Because he (?) might be trying to show the true meaning of God through suffering and there might be a better world. Or there might not be a God at all and there might be just note there. Myself I don't think there really is a God because of all the suffering. I would expect God to stop the suffering, or to make less suffering. (Shaun)

One girl, aged 14, discussed the case of a friend who died of a brain tumour, whose mother had had a miscarriage, and whose brother had been involved in a car accident. This girl did not believe in God:

How does he let it all happen and watch people suffer? The mother believed before but doesn't believe now. But you get through suffering quicker if you can get people to share it with you. They can feel how you feel. But most people can't be bothered; they are only bothered about their own lives. (Philippa)

Another girl in this group, aged 12 years 7 months was a believer in God:

God is around the suffering. He is with the people who are suffering. God has been through it and knows what suffering is like and people will have to go on suffering. (Claire)

There has to be suffering to balance things out. God can't make everybody happy all the time. No matter what we have suffered, God has obviously gone through it, or gone through worse than we have. (Tony)

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All evil and suffering - man has most to do with it. Man creates war. Illnesses are something different. Man cannot blame God for all the fighting and war - man creates it himself. (Beverly)

Much suffering and evil is caused by man. All the bad things man does, he does for himself. But when these bad things are solved, it's usually man that solves it. There must be something behind all this (But is there a God?) - I don't know. (Andrew)

Group 2.

I don't think it affects belief in God, really, 'cos God - he wants to show sometimes what will happen if they don't pick up or ote.*(Dianne)

God didn't do it. They bring it on themselves. Adam and Eve ate off the tree, and they shouldn't have. But if they didn't do that, God might have put us in a good world with no fighting. But because they disobeyed him, then he says we don't deserve to be in a good world all peaceful and everything. So he says we deserve it. (Ruth)

If there wasn't evil people would not know what happiness is. There's got to be some evil for there to be some good. (David)

Adam and Eve broke the rules. That brought evil into the world like a sentence. People should not blame God but should blame Adam and Eve. God could have brought evil into the world. It's tempting to believe in God because of all the suffering. There must be something there which makes people believe in God at times when they need him. Although they say they don't believe in God, deep down they must have ideas of God. (Brian)

If there weren't a God there wouldn't be anything. The Devil causes suffering. God lets some people die. The Devil causes horrible deaths but God lets people die of old age etc. (Keith)

If people put their minds to it they could stop all these killings and everything and could make the world a better place - but some people believe him less because of suffering. Nobody has ever seen God, so people don't know, I suppose. (Julie R.)

* Note: Local dialect transcription is given here.
a readiness and an ability to discuss the problem and to recognise the strengths of different points of view).

When you're praying - he can't hear everyone. You ought to be able to see what you are praying to. I don't think it's ridiculous, but I don't see how God can hear prayers. (Joanne)

God gives some people suffering to set an example to others. They've not been good and don't deserve to be happy. (Q: don't good people suffer?) It's not up to God to see to our problems like that - man should be able to cope himself without God. God has nothing to do with suffering. (Julie - but note the contradiction implicit in this pupil's answer.)

Group 3.

Many pupils in this group found difficulty in discussing the problem; eight pupils, however, provided some insightful comment which it is valuable to report.

There is a God because man creates a lot of suffering himself. God starts some suffering but others man creates himself. (Sandra)

God suffers with them. Some suffer more than others, e.g. war, and families wonder why it happened to them. If I'm going to die I'm going to die, I used to think when I was ill. You think you've got God's protection and you are in God's hands. (Lesley)

God can't help anybody. He helps them in the mind but he can't stop what they are doing. People pray to him. They believe he's talking back to them - advice. But he can't stop what they are doing, that is, the suffering. (John)

There is a reason for all the suffering. It's not God's fault, for example, Noah's ark. (Julie)

People fight against each other. It's people who put suffering in the world. God had suffered and God is still suffering. He wants the world to be peaceful. (Nicholette)

A lot of suffering is caused by man's own doing - so man's got a mind of his own. It's up to man to stop the suffering. For example, war and loneliness - it's not what God does; it is brought on by man. (Beverly)
God just made us all and left us here ... We make war ourselves. We make suffering. (David)
I don't believe in God because I've never taken an interest in it but suffering is not important; it just happened. It is not a reason why there isn't a God but it is a reasonable point of view! (Hazel)

Several pupils in this group were able to discuss the problem although their answers often tended to focus on the details taken from the parable:

I think God tries to stop it. (Helen)
There is a God but he has nothing to do with bad things. (Tracey)
Suffering is brought on by people themselves. God knew what they were suffering - he's heard their complaining. (Janice)
God were trying to stop it by sending Jesus down. (Mark)
People have been brought up with it (suffering) and he can't stop it unless he does summit to them. *(Neil)
God tries to help as many as he can. (Karen)
He wouldn't have created man if he were going to blow up people and blow up buildings. (Michael)
If people do suffer God isn't as good as they say he is and God's betrayed them. He was supposed to look after them, being God, but he's let bad things happen to them. (Mark)

There can be God. If you suffer he can get you better. (Peter)
A bit of bad things have to happen. It would be funny to have everything all nice. (Jane)
If there is a God he should stop people from killing each other. But he should not stop them dying - because there would be no room left. (Michael)

Group 4.
Most children in this group experienced difficulty; nonetheless, several provided perceptive comments:
If I were ill, I'd believe in God more, because he could help you, and you would become more involved with God and believe more. God would not want there

* Note: Local dialect transcription is given here.
to be suffering, terror, violence. He would just want men to be friendly. (Helen)
Suffering is not a reason against belief in God. There's got to be some suffering. Everyone can't be well all the time. They've got to die sometime and be poorly. (Andrea)
I don't think God can cure you if you are ill. It's medicines that cure you. (Linda)
Stop life. Stop God living. So it will stop all evil, but evil is caused by God. So they want to kill him. They say Jesus, God, caused it, made them suffer, so they think if they kill him (God), they will stop all unhappiness. (Trevor)
God's got a lot to do. He tries to put one thing right, and something else happens. (Richard)
If there were a real God he wouldn't allow all this much suffering. But I still believe there is a God - I don't think he can do note about it. *(Ian)

Group 5.
Perhaps the last word can be given to the twelve year old boy in this group:

There's got to be a God to create man. Suffering is a disease. It's nothing to do with God. (Trevor)

(4) Conclusion
The important aim of the interview programme was to provide the researcher with qualitative information about the pupil's own religious world. Two issues central to religious belief have been examined in the interviews, and the result documented above demonstrates that pupils are able to discuss them intelligently, and at times to provide insights remarkable for their depth and maturity. The qualitative information of the adolescent's religious world which was being looked for has been discovered.

A second aim was to observe differences in quality of response provided by children of differing levels of intellectual ability. In general, it has been noted, children with AH4 grades A and B (groups 1 and 2) provided answers and comments

* Note: Local dialect transcription is given here.
which revealed formal operational cognitive processes. It has been interesting to note, however, that comments of equal quality have at times been provided by pupils from the other AH4 groups.
PART FOUR

IMPLICATIONS OF THE RESEARCH FINDINGS FOR
RELIGIOUS EDUCATION IN THE SECONDARY SCHOOL

In Chapter XIII the research results are considered with specific reference to the two schools which participated in the research and the educational significance of the results is explored. Points for further research are indicated. Chapter XIV concludes the thesis.
CHAPTER XIII

A CRITICAL ASSESSMENT OF THE AIMS OF RELIGIOUS EDUCATION IN SCHOOL A AND SCHOOL B IN THE LIGHT OF THE RESEARCH RESULTS

1. Introduction.
In this chapter a descriptive account is given of the aims of religious education in the two schools which participated in the research programme, and particular points of interest from the research results are indicated and discussed. The contrasting approaches of the two schools are evaluated with reference to the findings of the research. Certain of the statistical findings reported earlier will be re-stated but such references will be kept to a minimum.

2. School A.

(1) Introduction.
This school is a well-established comprehensive school situated about eight miles from the centre of a large manufacturing industrial city. Its pupils are drawn from mining, industrial and rural communities and also from large private and council developments in the immediate vicinity of the school. Close curricular links have been established with the feeder primary schools and common language policies and a common core of mathematics are in operation. The school has initiated working groups of primary and secondary teachers on language policy and teaching methods. Attempts are being made to formulate cross curriculum mathematics, science and moral education policies. The school has a Sixth Form with 110 pupils engaged in "A", "O" and C.S.E. examinations; attempts are being made to increase its size and to develop more attractive courses. At the time of the research programme in January 1978, there were 1,484 pupils on the school roll.

(2) Pastoral Care.
There is a well-established pastoral care team of six year tutors, a youth tutor, a liaison teacher, a special unit teacher, a welfare officer and a visiting educational - - -

1. c.f. Headmaster's notes: a paper issued to applicants for teaching posts in School A.
psychologist. The importance with which pastoral care is regarded in the school is underlined by the Headmaster's comments:

"Its (the pastoral care team) importance remains undiminished and the first priority is to generate a caring approach to the needs of the pupils. It has close links with the departments and outside agencies. Our teachers are required to be fully involved with pastoral work as tutors and teachers."\(^2\)

The pastoral care team is headed by the Senior mistress who is also one of the three assistant head teachers. Pastoral care is given a specific place on the timetable when group tutors, year tutors, religious education tutors, career and drama tutors are available to meet pupils. The aim of the pastoral care scheme is an ambitious one: to enable a child to reach his full human potential.\(^3\)

"A child needs to grow in awareness of the right balance between his or her physical, mental and emotional needs. . . . children need to be brought to a full knowledge of who they are and how they relate to the world around them."\(^4\)

The pastoral care programme makes use of video-tapes, radio broadcasts, books (c.f. The Moral Education Lifeline series)\(^5\) and uses formal and informal methods of teaching. A detailed syllabus of "guidance schemes" is provided for the years 1 to 5. The topics dealt with are realistic and relevant to the needs of the adolescent and include careers guidance, sex education, and studies in inter-personal relationships. In-service training is given to teaching staff who are without counselling experience.

(3) Religious Education

The general aims and philosophy of the Religious Education Department of the school are stated as follows:-

2. Headmaster's notes op. cit.
4. Ibid.
"The growing child needs to appreciate and to come to terms with every facet of his human experience, as an individual person, living with other people, in a physical world. All education is concerned with this human experience. Religious Education is particularly concerned with helping the child to understand those areas of this experience which go beyond the physical - his identity as a person, his relationships as a person with other people, and his relationship as a person to the physical world he lives in.

Bringing the child to perceive, appreciate, and understand the problems involved in these areas of his life, must be the prime task of Religious Education. Once a child has perceived the problems, then the answers which others have found helpful and convincing become relevant to him, in his own search for meaning. Thus it is an important part of Religious Education to place before a child the main characteristics of religious belief, and the particular standpoints of Christianity and other religions, but these must be seen as an aid to the child to come to terms with the questions he is actually asking.

While this approach to R.E. might be called 'open', it should be stressed that it is our firm belief that such an examination, as we envisage, of these fundamental areas of human life, should lead the child to value himself, to value others, and to value the world he lives in. We would not calculate success by whether a child comes to a religious belief in God, but we would calculate success in terms of whether the child is developing an informed respect, concern, tolerance and understanding of himself and other human beings."6

Whilst the formation of a "stance for life" is regarded as the chief aim, it is recognised that religious education must include a specific cognitive content.

"In order to form his 'stance for life' a child needs to know and understand something of the major belief systems and philosophies of the world."7

7. Ibid.
The Religious Education syllabus in School A covers Years 1, 2 and 3 only. In years 4 and 5 the pupils follow a syllabus of moral education. The general approach to religious education is a thematic one: each theme emphasises a topic "relevant to the child at his stage of development" and begins with an exploration of the child's own experience and then:

"... widens the child's understanding with reference to religious attitudes to that experience."9

The syllabus may be summarized as follows:

**Year 1:** Community, birth, parable, miracle, death, resurrection. The themes are selected specifically "to give the child a comprehensive view of the life of Christ."

**Year 2:** Initiation, growth, freedom, togetherness, mission, greatness. The second year pupil is considered to be at the beginning of the stage of adolescence and the themes for the year are chosen with that in mind.

**Year 3:** The need for others; love in action - hunger, the search for freedom, the search for peace, the search for peace of mind; the problem of suffering. The third year themes are chosen to help the individual to see himself in relationship to others and the society and world he lives in.

(4) **Moral Education - Years 4 and 5**

In the 4th and 5th years each pupil is given one hour a week for moral education. The content of the moral education curriculum deals specifically with problems in relation to boy-girl relationships, sex, marriage, violence, war, crime, punishment, abortion, euthanasia and drugs.

3. **School B.**

(1) **Introduction**

This school is a well-established comprehensive school with a strong grammar school tradition. The buildings are situated on two sites; the first year pupils receive most of their lessons at a building situated one mile away from the main school. The school was formerly a grammar school and has been bi-lateral since 1964. The first full comprehensive intake was in 1973. Pupils are drawn from a similar socio-

8. See below, Section (4)
economic background to that described for School A. Many come from nearby mining, semi-industrial and rural communities and also from private and council developments. The school places great emphasis on the importance of examinations, and examinations are arranged for all pupils twice a year. A commendable success rate in public examinations is maintained. The organisation of the school is arranged to promote good academic standards. The first year comprises twelve mixed ability groups of children but from the second year onwards children are setted and streamed according to their academic ability. The top two classes study Latin, and the next four classes are setted for Maths and French. In year 3, setting also occurs for English and the most capable linguists begin to study German and Spanish. Greek is also taught as an optional subject. All children take Religious Education as a compulsory G.C.E. or C.S.E. examination in the 5th year. The school has a flourishing Sixth Form with two hundred pupils. At the time of the research programme in January, 1978, there were 1,450 pupils on the school roll.

(2) Pastoral Care

There is no doubt that this school, like School A, has the welfare of its pupils as a central concern but pastoral care is more implicit than explicit. Indeed, it is clear from the details of the Staff Handbook\(^ {11}\) that pastoral care is not regarded as a priority. Whereas it is mentioned explicitly several times in the Staff Handbook of School A,\(^ {12}\) it is referred to in the Staff Handbook of School B under the heading of "Role of Tutor - Social Responsibilities" where three precise suggestions regarding pastoral care appear to be made. These are:

"(a) Protect and promote the interests of individuals in the house group. Talk privately to individuals occasionally.

(b) Refer difficult social problems to the House Chairman ... if you cannot obtain a solution by yourself.

(c) Promote 'homeliness' in the house group room"

10. \textit{Note:} For example, in the summer of 1977 the school received 73 Grade A passes at 'O' level G.C.E., 216 Grade 1 passes at C.S.E., and 13 grade A passes at 'A' level G. C. E.

11. \textit{Staff Handbook 1976, School B.}

within reason so that pupils with social problems will readily turn to their tutor for advice towards a solution.\textsuperscript{15}

Perhaps too much is being read into the significance of staff handbooks here, but it is probable that this codified material is indicative of the general attitude to pastoral care within the school. On the other hand, it cannot be assumed that aims enunciated by the head of a school necessarily provide an accurate description of the attitudes of the staff.

(3) Religious Education

Religious education has a prominent and respected place in the curriculum. All children take the subject at C.S.L. or G.C.E. 'O' level at the end of a two year course in the 4th and 5th year. Two groups are taught the subject in the sixth form in preparation for 'A' level examinations. The general aim and objectives of the Religious Education syllabus are taken from the Schools Council Working Paper No. 36 and are stated as follows:

(i) AIM: To engage pupils in the objective study of the phenomena of religion and to stimulate in them a personal search for meaning.

(ii) OBJECTIVES:

(a) Awareness of religious issues.

(b) Awareness of contribution of religion to culture.

(c) Capacity to understand beliefs.

(d) Capacity to understand practices.

(e) Awareness of the challenge of religious belief.

(f) Awareness of the practical consequences of belief.\textsuperscript{14}

The content of the syllabus\textsuperscript{15} is summarized as follows:

**Year 1:** Pilgrimage (Who am I?)

Jesus.

Symbols in World Religions.

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\textsuperscript{13} Staff Handbook School B, op. cit.


\textsuperscript{15} School B: Religious Education Syllabus – A Bird's Eye View, October 1977.
Year 2: Cosmogony, Evolution, Primal Religion.
Christianity through the Ages.
Christian Symbols (of God.)

Year 3: Hinduism, Buddhism.
Judaism, Christianity and Islam.

Year 4: (C.S.E. Course) A choice of three out of five possible topics - Jesus, World religions, science and belief, moral problems, primal religion.

(G.C.E. 'O' level Course) A choice of one out of two topics - Gospel narrative of Jesus, and Christian morality and modern ethical problems.


4. Review of the Main Results and a Discussion of their educational significance.

(1) Religious Attitude and Overt Religious Behaviour

(i) Summary of Results
The firm conclusion of this research evidence is that of a linear decline with increasing age of both a positive accepting attitude to religion and of overt religious behaviour. In fact these variables of religious attitude and behaviour were positively and significantly correlated.16 The trend of a decline with increasing age was observed in the scores for boys and for girls, and for both schools. However, girls consistently obtained higher scores on these variables than boys in the same age groups, and School B consistently obtained higher scores on these variables than

16. Note: Tests for Linearity were made in respect of the variables RA1, RA2, RAT and RBR. The results showed in each case only slight deviations from linearity "when a standard linear regression model was applied to the data." (c.f. SPSS Handbook, op.cit., page 260) The value of Pearson r. for the correlation between Religious Attitude Total Score and Overt Religious Behaviour was r = .65, p ≤ .01, N = 1,997. See Appendices 26, 27, 28 (Scattergrams for RAT, with RA1, RA2 and RBR.)
School A. The topics included in the Religious Attitude (Hyde) questionnaires were attitude to God, the Bible, religion, the institutional church, the local church and church-going. The activities included in the overt religious behaviour measure were attendance at church, attendance at Sunday School, prayer, and Bible-reading.

The frequency statistics for overt religious behaviour are illuminating. Out of the total sample of 2,096 subjects for whom item statistics were available, 1,000 pupils (47.7%) said that they never went to church, 1,581 pupils (75.4%) said that they never attended Sunday School, 802 pupils (38.3%) said that they never read the Bible, and 708 pupils (33.8%) said that they never prayed to God.

On the other hand, 909 pupils (43.4%) reported that they sometimes read the Bible, 724 pupils (34.5%) reported that they sometimes prayed to God, and,

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17. Differences between Schools on the variables RA1, RA2, RAT and RBR reached statistical significance. RA1, RA2, RAT, RBR: \( p < .01, N = 1,997 \). The effect of pupil's sex on the scores for RA1, RA2, RAT and RBR also reached statistical significance (\( p < .01, N = 1,997 \)). See also Table 31 and Appendix 39.

18. Note: The two questionnaires constructed from these topics were the basis for six sub-scales. Hyde himself combined the results to provide two measures: (a) Attitude to Religion, and (b) Attitude to the Church. In the present research the two questionnaires were combined to provide a total attitude score (a legitimate use of the questionnaires suggested by Hyde - see Hyde, 1965, op. cit., page 108). This total attitude score was labelled RAT.

19. That is, 599 pupils from School A and 401 pupils from School B.

20. That is, 892 (School A) and 689 (School B)

21. That is, 511 (School A) and 291 (School B)

22. That is 458 (School A) and 250 (School B)

23. That is, 449 (School A) and 460 (School B)

24. That is, 392 (School A) and 332 (School B)
45 pupils (2.1%) reported that they read the Bible every day, and 338 pupils (16.1%) declared that they prayed to God every day. 195 pupils (9.3%) reported that they attended church every week.

These statistics are important for they provide the background details against which the scores on the religious attitude and religious behaviour variables are to be interpreted. The clear and indisputable fact is that the majority of children in the sample had little contact with the local church or Sunday School.

(ii) The educational significance of a decline in religious attitude and overt religious behaviour.

The educational significance of this finding of a negative attitude to institutionalized Christianity needs to be considered. Francis (1977) reported similar findings to those of the present research, but refused to draw any far reaching conclusions from them. Having observed that his research data provided:

"... sure evidence that attitudes towards religion decline on a linear gradient from the age of eight to the age of sixteen."

he remarked,

"This is the climate in which the religious educationalist and the church must at present operate. It is the climate which those who are concerned with the positive discussion of religious issues must work to change." 29

Francis is correct that one should resist:

"... the temptation which besets the educational researcher ... to go beyond the strict limits of research competence and to make relevant-sounding

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25. That is, 18 (School A) and 27 (School B)
26. That is, 137 (School A) and 201 (School B)
27. That is, 82 (School A) and 113 (School B)
29. Ibid.
pronouncements regarding the advancement of the educational enterprise."

but it is possible that he is unduly cautious in interpreting his results. The present research results support the findings of Francis (1976) and give some support to the findings of Hyde (1965). They provide further evidence of what Francis has called "the climate" in which the religious educationalist must work. But more than this can be said. The fact that the churches have such little contact with the majority of pupils has important implications. It is no longer possible, if indeed it ever has been possible, to leave the responsibility of the religious education of young people in our society to the institutionalized church; the main responsibility for their religious education belongs to the schools. In facing this responsibility the following factors, from the present research evidence, need to be taken into account.

(a) The subject needs to be made attractive to pupils.

The evidence of a decline in religious attitude presents a specific problem for the religious education teacher for it indicates that he is likely to find his subject unpopular even before he begins to teach it. In order to make the subject attractive and to increase motivation to learn amongst the pupils, the religious education syllabus needs to be structured so that the content areas, subject-matter for study (text books, documents, work sheets) teaching strategies and extra-curricular activities are carefully related to the individual needs of pupils.

(b) Negative attitudes do not necessarily imply a lack of interest in religion.

Although on the one hand there is the evidence of a decline in attitude to religion and of only little

contact between the majority of adolescent pupils and the institutionalized church, on the other hand, there is no evidence to suggest the prevalence of wide-spread atheism. In the item statistics for the statement "Belief in God has no interest for me," only 393 of the 2,096 pupils for whom information was available, registered agreement. Moreover, the results of the religious thinking test and of the detailed responses to the individual interviews showed that the pupils were able to think intelligently and with considerable interest and insight about religious phenomena. It would be inaccurate to conclude, therefore, that negative attitudes to religion, as measured on the Religious Attitude (Hyde) questionnaires, imply a lack of interest by the majority of pupils in the central issues with which religion is concerned.

(2) Religious Cognition and General Intelligence.
(1) Summary of Results - Religious Thinking Test
The results showed that scores on the religious thinking test were correlated with general intelligence \( (r = .57, p < .01) \), tended to show an increase corresponding with increasing age, were higher for girls than for boys, and were higher in School B than in School A. The difference between schools was statistically significant \( (p < .01, N = 1,997) \).

33. Note: Responses to the item "Belief in God has no interest for me," were as follows:
   - Agree Strongly: 4.0% (93 pupils) (School A 49, B 44)
   - Agree: 14.3% (300 pupils) (School A 186, B 114)
   - Not certain: 28.4% (596 pupils) (School A 356, B 240)
   - Disagree: 37.0% (775 pupils) (School A 389, B 386)
   - Disagree Strongly: 15.6% (326 pupils) (School A 148, B 178)

Source: Religious Attitude (Hyde) Part 2, Item 2.

34. See Chapter XII.

35. Mean Scores:
   - School A, Year 1 (12.90), Year 2 (14.36), Year 3 (14.37), Year 4 (14.97), Year 5 (14.98).
   - School B, Year 1 (14.98), Year 2 (16.46), Year 3 (17.70), Year 4 (15.92). *(See Appendix 29).

36. Mean Scores:
   - School A, Boys (13.83), Girls (14.61) \( p < .01, N = 1069 \). School B, Boys (15.78), Girls (16.72) \( p < .01, N = 928 \).

37. Difference between Schools on R.T. Test
   Mean Score: School A (14.22), School B (16.25) \( p < .01, N = 1997 \).
In School A, although the religious thinking scores increased with age, the differences were not statistically significant between the scores for Years 2, 3, 4 and 5. The only significant difference (p < .01) was found between the scores for Year 1 with each of Years 2, 3, 4 and 5.

In School B an increase in religious thinking test score with increasing age was more noticeable. The effect of school year on the test scores was in all cases statistically significant (p < .01) with the exception of the differences between the means of Year 1 and Year 4, and between the means of Year 2 and Year 4. (The scores for Year 4 showed a decrease.)

In both School A and in School B, the differences between boys and girls reached statistical significance (p < .01)

(ii) Summary of Results - A.H.4 Test

The most important finding from the results of the A.H4 test was the clear difference which was shown to exist between the schools and which was statistically significant. The scores in School B were consistently higher than the scores in School A. An increase corresponding with an increase in age was found in both schools, and was found to be statistically significant, but no significant difference was found between the scores for boys and the scores for girls.

38. Difference between School A and School B on A.H4 Test:
Mean Scores: School A (23.75) School B (26.34)
p < .01, N = 1,997.

39. Mean Scores:
School A, Year 1 (18.47), Year 2 (23.01), Year 3 (23.66)
Year 4 (26.80), Year 5 (30.14)
School B, Year 1 (21.92), Year 2 (24.34), Year 3 (28.85)
Year 4 (30.55)

40. Note: The differences between the years, for the total sample were found to be statistically significant (p < .01) except for the means of Year 4 and Year 5. This pattern was seen in the scores of the schools analysed separately, except (i) no significant difference was found between Year 2 and Year 3 (School A) and (ii) no significant difference was found between Year 3 and Year 4 (School B). See also Table 35.

41. Mean Scores:
School A, Boys (23.79) Girls (23.72)
School B, Boys (25.74) Girls (26.93)
(iii) Educational Implications of the Results for the Religious Thinking Test and for the AH4 Test.

The pupils at School B were consistently better performers on the AH4 test than the pupils at School A; this was the unequivocal finding of the AH4 results. The strong and positive correlation between AH4 and religious cognition ($r = .57$, $N = 1,997$, $p < .01$) is important and should be kept in mind when interpreting the performances of religious cognition. However, there were differences between schools. The general upward trend in scores with increasing age observed in the scores on the AH4 test, was observed also in the scores on the religious thinking test in School B, but not in School A.

The approaches to religious education in the schools were also very different. The grammar school tradition in School B was plainly evident. This was indicated above in the description given of the organisation of the school and was illustrated in the details given of the strong cognitive content of the religious education syllabus. The aim of the syllabus was "to engage pupils in the objective study of the phenomena of religion" and the impressive number of passes in the C.S.E. and G.C.E. results was indicative of its success. As reported earlier, religious education in School B was compulsory throughout the school during the first five years and was a strong and popular optional subject for A level in the sixth form. Religious education was given a high status in the school; the emphasis was on the academic study of religious phenomena. In School A, however, there was a marked emphasis on moral education and the education of attitudes, and less importance appeared to be given to the cognitive content of religion.

It was interesting to note, therefore, that the scores for the pupils in School B were significantly higher than the scores obtained by pupils in the corresponding years in School A. Whereas the scores on the religious thinking test in School B followed closely the pattern of scores obtained on the AH4 test (a statistically significant increase corresponding with increase in age) the same pattern was not obtained in School A. The lack
of a statistically significant difference between the religious cognition scores of the pupils in Years 2, 3, 4 and 5 in School A was an important finding. It suggested that there was little development in religious thinking beyond the second year even though the AH4 scores showed a statistically significant increase with chronological age. This result showed, therefore, that the pupils in School A would be likely to be able to deal successfully with the more conceptual problems of religion were appropriate instruction in this area to be given. It was noted earlier in this chapter that the religious education syllabus in School A adopted an approach which attempted to relate content to the "questions which the pupils are asking" in their "search for meaning." The implied criticism of this thematic syllabus is that it lacks substantive religious phenomenological content. This criticism may be accepted as a valid one but rejected on the grounds that the moral development of the individual pupil is more important, and that the lack of serious religious knowledge content in the syllabus may be justified for this reason. Too much significance must not be claimed for the religious thinking test, but it is possible (and this is the point which is being argued here) that the scores obtained by pupils in School A indicate the need for a review of the content of the religious education syllabus in the school, if it has an interest in the development of religious cognition among its pupils.

The results also give a reminder that the cognitive content of the religious education syllabus should be related to the varying intellectual levels of pupils. However, curriculum materials available to the religious education teacher, are seldom structured in this way. It is clear that the religious education teacher should be aware of the different intellectual levels of his pupils.

42. For example: Two excellent books, attractively produced and widely used in schools are Ed. B. Wigley and R. Pitcher: The Developing World, Vol 1, From Fear to Faith, and Vol. 2, Paths to Faith, Longman 1969, 1971. Both books need considerable adaptation before they can be used effectively in the classroom. Both books were also available as resource materials in School A and School B.
pupils, and should produce imaginative schemes of work structured to meet their needs. 43

(3) **Attitude to Others and Helpfulness.**

(i) **Summary of Results - Attitude (Mark) Total Scores.**

The scores on the Attitude questionnaires (Mark 1, Mark 2, and Mark Total) were strongly inter-correlated 44 showed a slight decrease corresponding with increasing age 45 were higher for girls than for boys, 46 and were higher in School B than in School A. The difference between schools was statistically significant. (p < .01). 47

In School A, the effects of school year on the Attitude total scores were found to be statistically significant (p < .01) between Year 1 and Year 4, and between Year 1 and Year 5. Differences between the means of the other years were not statistically significant. It is clear from this result that older children in the school showed a less compassionate attitude to others, as measured by the Attitude (Mark) questionnaires, than did the younger children, and the differences were statistically significant. (p < .01) But the decline in total score was

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43. Note: c.f. "... it is recognised that only those responsible for religious education within the schools are in a position to tailor lesson schemes to the needs of their own pupils." - City of Birmingham Education Committee: "Living Together: A Teacher's handbook of suggestions for religious education" 1975, page C24.

44. Attitude (Mark) Part 1 with Part 2 (r = .33, p < .01, N = 1997)
Attitude (Mark) Part 1 with Attitude Total (r = .82, p < .01, N = 1997)
Attitude (Mark) Part 2 with Attitude Total (r = .80, p < .01, N = 1997).

45. **Mean Scores:** (Attitude Mark Total Score)
   - School A: Year 1 (14.52), Year 2 (13.90), Year 3 (13.83), Year 4 (12.89), Year 5 (13.17).
   - School B: Year 1 (14.72), Year 2 (14.43), Year 3 (14.34), Year 4 (13.14).

46. **Mean Scores:** (Attitude Mark Total Score)
   - School A: Boys (13.36), Girls (14.10). p < .01, N = 1069
   - School B: Boys (13.70), Girls (14.63). p < .01, N = 928

47. **Differences between Schools** (Attitude Mark Total Score)
   - Mean Scores: School A (13.73), School B (14.17)
   p < .01, N = 1997.
relatively small and only became significant in relation to the oldest pupils.

In School B, the effects of school year on the Attitude Total Scores were found to be statistically significant \((p < .01)\) between Year 1 and Year 4, between Year 2 and Year 4, and between Year 3 and Year 4. Differences between the means of the other years were not statistically significant. The pattern was the same as that which was observed for School A, older children showed a less compassionate attitude to others than did the younger children and the differences were statistically significant, \((p < .01)\).

In School A and in School B, the differences between boys and girls reached statistical significance \((p < .01)\) with girls showing the higher mean scores.

(ii) Summary of Results – Helpfulness.
The mean scores in the results for this test showed variation between years and no systematic trend was apparent.\(^48\) This was characteristic of the scores for both schools, but the level of scores was higher for School B than for School A. The differences between the scores for boys and girls\(^49\) and between schools\(^50\) were statistically significant. \((p < .01)\).

In School A, statistically significant differences were found in the scores between Years 3 and 5, years 4 and 5 years 2 and 3 and years 2 and 4. There was some tentative evidence, therefore, that some of the older children in School A were more helpful, according to their self-reported behaviour, than the younger children.

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48. Mean Scores: (Helpfulness)
   School A: Year 1 (16.50), Year 2 (15.46), Year 3 (17.96), Year 4 (17.68), Year 5 (15.61)
   School B: Year 1 (18.99), Year 2 (18.36), Year 3 (18.55), Year 4 (18.86)
   Total Sample: Year 1 (17.72), Year 2 (16.91), Year 3 (18.25), Year 4 (18.27), Year 5 (15.61)

49. Mean Scores: (Helpfulness)
   School A: Boys (14.20), Girls (19.25) \((p < .01, n = 928)\)
   School B: Boys (16.20), Girls (21.13) \((p < .01, n = 1069)\)

50. Differences between Schools
   Mean Scores: School A (16.74), School B (18.69) \((p < .01)\)
In School B, no statistically significant differences were obtained due to the effect of school year, but the highest mean score was for Year 1.

In the scores for the total sample a slight effect due to school year was found. The means between Year 3 and Year 5, and between Year 4 and Year 5, were statistically significant ($p < .01$). This significant effect was clearly caused by the low mean score for Year 5. In both School A and School B the differences between the scores for boys and girls reached statistical significance ($p < .01$).

(iii) Some Item Response Details.

Six Likert-type response categories were provided for the 28 items in the two attitude (Mark) questionnaires. Reference to the details of the response pattern for each category and for each individual item on the questionnaires shows that the majority of pupils possessed, as measured by the attitude (Mark) questionnaires, a compassionate attitude to old people, suffering, friendship, and loneliness. On the other hand, an uncompassionate attitude was shown by the majority towards shoplifters, vandals and terrorists.

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51. Note: These were: Strongly Agree; Agree; Slightly Agree; Slightly Disagree; Disagree; Strongly Disagree.

52. Note: i.e. Over 50% of the total sample responding at the two end categories. (Strongly Agree or Agree, and Disagree or Strongly Disagree.)

53. Attitude Questionnaire (Mark) Part 1, Item 1 (88%) and Item 11 (67%)

54. Attitude Questionnaire (Mark) Part 2, Item 14 (75%)

55. Attitude Questionnaire (Mark) Part 2, Item 9 (80%)

56. Attitude Questionnaire (Mark) Part 1, Item 13 (67%) and Item 14 (68%) and Attitude Questionnaire (Mark) Part 2, Item 13 (84%)

57. Attitude Questionnaire (Mark) Part 1, Item 4 (54%)

58. Attitude Questionnaire (Mark) Part 2, Item 3 (50%) and Item 11 (75%)

59. Attitude Questionnaire (Mark) Part 1, Item 2 (44%) and Item 3 (45%) Note: for these items the figures are 68% and 65% respectively if the third category is taken into account.
Items 1 and 2 on the Attitude Questionnaire (Mark) Part 2 were concerned with attitudes to race. Both items showed a wider spread of opinion than was the case with the items discussed in the preceding paragraph, although the response categories 6 (strongly disagree) proved to be strong discriminators on both items. It is a cause for concern, however, that 53% (1,113 pupils) expressed a measure of agreement for the statement that "Black people should go back where they came from," and that 55% (1,192 pupils) expressed a measure of agreement with the statement "What really gets me is why black people can't stay in their own country." The need for education in the development of understanding and tolerance is unmistakably clear.

(iv) Educational Implications of Results: Contrasting Attitudes - but the results must be interpreted with caution. The information summarized in the preceding three paragraphs is interesting but must be interpreted with caution. There are two inter-related constraints which must be acknowledged. Firstly, there is the question of ambiguity built into the concept of a "compassionate attitude" and secondly, there is the question of the ambiguities of the items themselves. Wilson's analysis of the distinction between an emotion and an attitude is a useful one, for

60. c.f. Item 1, Beta = .50; Item 2, Beta = .50.

61. Note: In each case these percentages refer to the total response of the three categories; Strongly Agree, Agree, and Slightly Agree.

62. c.f. Wilson J. 1971. "Emotions must be distinguished from attitudes. The very complex concept of an attitude may at least be said to be more closely connected with what other people see of one, or may expect of one, than emotion is; perhaps particularly with the notion of a posture or stance (either in the literal or the metaphorical sense) adopted in face of the world outside. Hence we call attitudes 'stately', 'hostile', 'friendly', 'uncompromising' etc. Particular attitudes are characteristic of particular emotions and moods, so that we speak of an attitude 'of terror', or 'of dejection'; some are characteristic also of particular activities - an attitude of prayer, or of submission, or of resignation. Emotions are in a sense more primitive and less public; one may be angry without adopting a hostile attitude, or feel afraid and yet strike an attitude of bravery or indifference. Attitudes are shown: emotions need not be." - John Wilson, Education in Religion and the Emotions, Heinemann, 1971, page 100.
it is clearly the case that attitudes do not necessarily reflect exactly what one feels. Attitudes are, in a sense, public stances — indicators of what one feels perhaps, but also possibly indicators of what one thinks one ought to feel, or what one thinks others might expect one to feel. There is, therefore, a certain lack of precision built into the concept of an attitude which imposes a constraint on the interpretation of the results. A second constraint is the assumption that must be made, that in responding to some of the items on the questionnaires pupils will have interpreted the statements differently. A measure of ambiguity has to be acknowledged here, for it cannot be assumed that the interpretation of the meaning of the statements given by the researcher was necessarily shared by the pupils who answered the questions. The interpretation given to a statement and consequently the response which one makes to it, depends on several factors, for example, one's concept of justice and one's understanding of circumstances.

Although the promotion of academic standards was important in School A, one gained the strong impression that this was not the most important aim of the school. On the contrary, the careful and detailed organisation of pastoral care in the school showed that pastoral care was regarded as one of the school's most important functions. Moreover, it was clearly the case that the syllabus for religious and moral education was intended to make a strong contribution towards the achievement of the pastoral care programme. The approach to religious education in School A was described as "open". It was planned to assist the pupil "in his own search for meaning." The main intention in selecting content areas for the syllabus was to choose material which would be seen "as an aid to the child to come to terms with the questions he is actually asking." Viewing religious education in this way imposed constraints on the amount of substantive religious phenomenological material that could be included realistically in the syllabus. Moreover, the

63. School A, Religious Education Syllabus, op. cit.
dividing line between what should count as religious
education and moral education was not clearly drawn. 64
On the positive side, however, the Headmaster and staff
of School A were aiming to change attitudes - and the
expectation of their religious and moral education
programme was "that pupils would learn to show respect,
concern, tolerance and understanding of themselves
and other human beings." 65

The present research programme was warmly received in
the school. The research design included questionnaires
developed to give a measure of children's tolerance,
compassion and understanding of other people, and it was
hoped that the results would provide some objective
assessment of the measure of success of the religious
and moral education policies practised in the school.
It was not unreasonable for the Headmaster of School A
to look for signs of an increase in attitude total score
corresponding with increasing age, therefore, as an
indication of the success of the moral education curriculum
in the school. 66 Such an expectation reflected the view
of Sugarman, for example, who lists six criteria to be
fulfilled by the morally educated person, the first two
of which are (a) he is required to have a concern for
other people; to feel that their interests and feelings
count along with his own, and (b) he must be sensitive
and perceptive in his relationships with others so that he
can see accurately what their feelings and interests are.
Such a view does not imply acceptance of Kohlberg's six
stage theory of moral development, although it is
interesting to note that Kohlberg's final stage of
"autonomous moral behaviour" suggests a behaviour pattern
which includes at least a general avoidance of violation

64. See the content of the School A, R.E. Syllabus -
Part Four, Chapter XIII, 1, (3) of this thesis.
65. Ibid.
66. Note: That is, because of the close similarity between
the rationale of the attitude questionnaires and the
aims of the school.
of the School" Journal of Curriculum Studies 1 (1)
November, 1968.
of the rights of others, and a sensitivity to their needs. The morally mature person, according to Kohlberg, like Sugarman's morally educated person, would exhibit attitudes of sensitivity and concern for others.

Too much significance must not be claimed for the results and it would be an exaggeration to infer from them that the moral education curriculum in either School A or in School B was not successful. On the other hand the results do reveal a similar pattern of scores in School A and School B and the lack of evidence of any sign of an increase in total attitude score corresponding with increasing age, and the relatively poorer showing of School A, suggests that a review of the moral education curriculum and methods of teaching in both schools would be valuable.

(4) Three Factors of Religious Behaviour, Attitude to Others, and Religious Thinking and General Intelligence.

The results of the factor analysis, described in Part Three, showed the existence within the data of three distinct factors. This important finding was not anticipated at the beginning of the research. Factor analysis enables the researcher:

"... to see whether some underlying pattern of relationships exists such that the data may be 're-arranged' or 'reduced' to a smaller set of factors or components." 69

The three factors were labelled religious behaviour, compassion and cognition. The most prominent of these factors was religious behaviour and this included the scores for religious attitude and overt religious behaviour. The second factor, compassion, was derived from the scores for the attitude to people variables, and the third factor was derived from inter-relation between the religious thinking and general intelligence scores. Also, this pattern of three factors was again clearly evident when the data of each school...


69. SPSS Handbook, op. cit., page 469.

70. That is, accounting for 55.6% of the total variance in the rotated orthogonal solution.
was analysed separately.

The significance of these results for religious education are unambiguously clear. Religious thinking is related strongly to general intelligence and only slightly to pupil's attitudes. Attitudes to conventional institutionalized Christianity and patterns of conventional religious behaviour such as going to church and reading the Bible, are also closely related. Pupils' attitudes to people and their attitudes to conventional Christianity, however, have little direct relationship with each other and appear to operate as separate domains in the adolescents' religious worlds.

(5) Points for Further Research

A brief indication needs to be given of points for further work which arise directly from the present research.

(i) Follow-up work within the schools.

It has been recommended at an earlier point in this report that a careful review of the religious education curriculum in School A would be desirable, particularly with regard to the question of increasing the substantive religious content of the syllabus. Both schools might also wish to consider what modifications might be made in the total curriculum of the school with the intention of promoting an increase in sensitivity to others to correspond with increase in chronological age.

(ii) Further research using the present data.

In writing this research report it has become evident that there are certain areas within the data which could be analysed and developed further. The Teenage Interests Questionnaire included three essay-type answers from which scores were obtained both for overt religious behaviour and for Helpfulness. The Religious Thinking Test also included three essay-type answers from which scores were obtained. Detailed analysis of the statements in these essays was not made but such an analysis (similar to that used for the follow-up interviews) would provide further detailed illumination of adolescent ideas on religious questions.

71. c.f. Teenage Interests Questionnaire, Question 7.
72. c.f. Religious Thinking Test, Section C.
(iii) **Further Research Questions.**

(a) The central question which arises from this research report is whether the results described for School A and School B are typical of the situation likely to pertain generally in schools throughout the country. The close similarity of the results in the two schools with recent research findings on religious attitude reported elsewhere suggests that if the present study were replicated, similar results would be found. This matter could be decided, however, only by further work replicating the present research design and research instruments. Further investigations are needed into the relation between religious attitude, religious behaviour and religious understanding, and also into the effects of different kinds of religious education curricula materials and teaching methods upon religious cognition and behaviour in adolescents.

(b) The religious thinking test used in this research is a modest test instrument with a scoring key influenced by Protestant theological principles. The culture-bound limitations of this test are recognised, and in further research alternative tests for religious thinking need to be devised.

5. **Conclusion**

The empirical evidence broadly reviewed in this chapter and the educational considerations which have flowed from it must be regarded as of direct relevance to the two schools which participated in the research. On strictly methodological grounds the statistical results do not permit any wider generalisation of the research findings. The similarity of the pattern of scores in the two schools, interpreted and confirmed by the techniques of analysis of variance and factor analysis, suggest

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73. Francis., 1976, op. cit.

74. Note: The limitations of this are clear. In devising a test with questions about the interpretation of religious phenomena (R.T. Test, Section B) and about the personal significance of religious phenomena (R.T. Test, Section C) a measure of theological bias is difficult to avoid.

75. Note: (a) The sample of the two schools was not randomly selected, and (b) differences in the scores of the two schools were shown to be statistically significant (p < .01 N = 1863) See Appendix 39.
nonetheless, the strong possibility that replications of the present study elsewhere would lead to similar results. The need for further research investigations has been indicated.
CHAPTER XIV

CONCLUSION

The fundamental aim of this research study was to provide empirical information which might illuminate the task of religious education in the secondary school classroom. A sample of over 2,000 pupils has provided the information analysed in this report. In some parts of the report attention has been given to the minutiae of the research and the words of individual children have been commented upon; in other parts attention has been focussed on the differences between the schools (and the similarities); but throughout the report the main thrust of the detailed and complex statistical analysis of the results has been to report the broad trends revealed by the scores of the total sample. It is the broad trends in the scores of these 2,000 children which deserve the most serious attention and which constitute whatever claim might be made for the educational relevance and importance of this research. In describing the results in this way the complexities of the statistical tables which provide the substance of the report are placed in the background, and the main results of the research become unambiguously clear.

Firstly, there are trends of a decline in total score with increasing age for attitudes to traditional Christianity, for patterns of overt religious behaviour such as church attendance and reading the Bible, and, to a lesser extent, attitudes to others. Secondly, there are trends of an increase in total score with increasing age for religious thinking and general intelligence. Thirdly, there is a distinct and clear pattern of three separate factors within the cognitive framework of the adolescents' religious world, namely, religious behaviour, attitudes to others, and cognition.

The existence of these trends and factors provides a strong impetus for curriculum change in religious education in the secondary school.