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ABSTRACT

The nature of the relationship between faith and intellect has intrigued theologians and educators throughout history. Christian educational institutions have attempted to integrate the two constructs to encourage intellectual development while maintaining traditional Christian values and ideals. Specifically, the relationship of Christian faith and intellectual development of college students is of central importance to educators in institutions affiliated with Christian denominations.

According to William Perry, intellectual development of college students may be positively related to learning and academic success. In addition, research on religious factors indicated an inverse relationship exists between Protestant fundamentalism and intellectual development. There is also general support for an inverse relationship between religious fundamentalism and moral reasoning development as defined by Kohlberg.

The purpose of this study was to assess levels of Protestant fundamentalism, intellectual development, and moral development among traditional-age Protestant college students to ascertain the nature of the relationship between fundamentalism and the two developmental variables. To accomplish this, 242 participants were

selected from four regional, church-affiliated higher education institutions. Data were collected using a demographic sheet, the Copeland Fundamentalism Scale, Erwin's Scale of Intellectual Development and Rest's Defining Issues Test. Developmental differences between fundamentalists and non-fundamentalists were analyzed using an analysis of variance (ANOVA) with multiple t-tests as follow-up measures. Significant demographic differences were analyzed using multiple t-tests.

Results indicated a significant inverse relationship between Protestant fundamentalism and intellectual and moral development among the participants. In addition, educational level and age were significantly related to Protestant fundamentalism. These findings generally support previous research regarding fundamentalism and intellectual and moral development. In contrast to previous research, this study classified fundamentalists based on empirical data, rather than demographic characteristics.

This study should provide educators in Christian institutions with a clear indication of the potentially negative impact of fundamentalist thinking on students' intellectual and moral development. In addition, the findings should assist educators in learning to deal sensitively and constructively with fundamentalist students.

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CHAPTER I
INTRODUCTION

Statement of the Problem

The rise, in the last two decades, of the "New Christian Right" and religious-political organizations such as the Moral Majority has been well-documented (Woodrum, 1988). During this period, the simplistic dogma of Protestant fundamentalism has been embraced by many Americans. Martin Marty (1987) estimated that there were between 10 and 20 million people in the United States involved in the movement, thus indicating a significant level of impact of Protestant fundamentalism on American society. Colleges and universities were not untouched by this involvement.

In 1991 there were 1284 four-year institutions of higher education in the United States. Of these four-year institutions, 347, or 27%, were affiliated with a Protestant church (Astin, 1991). In addition, 29% of entering college freshmen in 1991 reported that they were "born-again Christians" and 17.6% reported that they were Baptists (Astin, 1991).

The recurring conflict between science and faith has been exacerbated by the rise of fundamentalism. The integration of reason and faith among protestants is often hindered by an epistemological view that the sole source

of truth is revelation, rather than reason or scientific investigation (Carter and Narramore, 1979). This epistemology is prevalent among fundamentalists, and represents, according to Evans and Berndt (1988), an intellectually incomplete approach to truth. Hurd (1988) went so far as to identify fundamentalism as a traditionally anti-intellectual religious movement.

Protestant fundamentalism, by its very nature, is an intrusive, intolerant movement which seeks to exert profound impact on society. Whereas liberal evangelicals tend to accept the modern world as the arena in which they must present their message, fundamentalists feel it incumbent upon themselves to change the arena to fit their beliefs; that is, they do not translate their message into the world's terms, but attempt to bring the world into conformity with their beliefs (Cox, 1987).

Saperstein (1990) stated that fundamentalists' desire to change society stems from a deep-seated protectionism. Fundamentalists wish to protect their children from any non-fundamentalist influence and have sought to eliminate such influences in government, schools, the media, and society in general.

Perhaps Saperstein (1990) captures the essence of fundamentalist influence when he quotes statements from fundamentalist leaders:

I hope I live to see the day when...we won't have any public schools. The churches will take them over again and Christians will be running them. What a happy day that will be!

There is no such thing as separation of church and state. It is merely a figment of the imagination of the infidels.

I'll tell you what's wrong with America. We don't have enough of God's ministers running the country. (p.218)

It is no coincidence that the ministers quoted above are all affiliated with the Southern Baptist Convention (SBC). In few denominations has the impact of fundamentalism been more evident than in the SBC. From the late 1970's to the present, the fundamentalist movement in the SBC sought and continues to seek political control of the convention's leadership positions, committees, and agencies (Leonard, 1990; Rosenberg, 1989).

The fundamentalist political movement in the Southern Baptist Convention has included a concentrated effort to determine the future of the convention's educational institutions (Rosenberg, 1989). The clearest indication of this effort and the resulting conflict, was the withdrawal from the Baptist General Convention of Texas (the Texas arm of the SBC) of Baylor University in 1991. Baylor's trustees legally eliminated convention control over the institution. Leaders of other Baptist schools have attempted to take the same action to prevent

institutions from being unduly influenced by fundamentalists (Mangan, 1990).

Within Southern Baptist educational institutions, faculty have found themselves jeopardized by their own scholarship and under pressure to refrain from intellectual explanations and reasoning with the admonishment that this intellectualization subverts the faith experience of the student. In some institutions, this pressure has promoted a climate of true fear and intimidation among Southern Baptist theologians (Neely, 1990). Although the underlying conflict between the academic community and fundamentalist leadership has often been reported to be theological in nature, Keith (1987) suggested that the basic conflict results from differences in development of ethical or moral reasoning, rather than theology or doctrine.

With the rise in Protestant fundamentalist influence in American society and the growing strength of fundamentalist forces within Protestant denominations, Christian higher education institutions will continue to feel the impact of fundamentalist governance. Impact will also be evident in students of higher education, as students will likely be influenced by their parents' religious orientation (Ozorak, 1986).

Given the significant influence of Protestant fundamentalism on society, educational institutions and

students, a thorough understanding of the nature of the impact of fundamentalism on Christian higher education is needed. After conducting a thorough review of the research in this area, only 33 studies were found over a ten year period that generally address the topic, with only 19 studies specifically related to Protestant fundamentalism. Since research is sparse concerning Protestant fundamentalism, this study will seek to contribute to a clearer understanding of the impact of fundamentalism on college student development.

Specifically, this study will attempt to answer the following questions regarding the relationship between level of Protestant fundamentalism and levels of intellectual and moral development in college students at Protestant institutions of higher education:

1. What differences, if any, exist in levels of intellectual development and moral development among fundamentalist and non-fundamentalist college students?
2. What relationship, if any, exists between level of Protestant fundamentalism and levels of intellectual and moral development of college students?
3. What differences, if any, exist among demographic data obtained from groups of college students

with regard to level of Protestant
fundamentalism?

4. What demographic factors may be related
to Protestant fundamentalism in college students?

In addition, since valid and reliable instrumentation to assess Protestant fundamentalism is unavailable, a preliminary inventory will be developed to measure the level of Protestant fundamentalism.

Definitions

Protestant Fundamentalism

In order to facilitate understanding of the intent and significance of this study, the following definition, representing a synthesis of research and expert opinion on Protestant fundamentalism is used. Protestant fundamentalism is a religious ideology characterized by strict adherence to the tenets of Biblical authority, literalism and inerrancy, atonement for sins, the virgin birth of Christ, resurrection and millennial eschatology. This adherence is enforced through separatism, submission to authority, intolerance for ambiguity and militant exposure of all opposing beliefs and practices. All Protestant fundamentalists can be categorized as evangelical Christians who are committed to the notion of spreading their gospel throughout the world. However, contrary to popular generalizations promoted by the media

and some researchers (Chi & Houseknecht, 1985; Jelen, 1986; Wroebel & Stogner, 1986), most evangelicals are not true fundamentalists.

Intellectual Development

The construct of intellectual development that will be used in this study has been defined by Perry (1980) as the making of meaning, or the cognitive structure of a student's accommodation and assimilation of new information. The concept of intellectual development should not be confused with traditional concepts of intelligence or aptitude. It is more correctly defined as development of thinking patterns or processes as opposed to abilities. Intellectual development occurs on a continuum during the college experience as a student moves from dualism, through relativism and to commitment.

Dualism

Dualism is the first developmental stage in Perry's scheme of intellectual development. This stage is characterized by a tendency to view all moral, ethical and intellectual questions from a strict "right/wrong" perspective. Students at the dualistic stage are unable and unwilling to accept any intellectual ambiguity and are most comfortable when truth is disclosed and clearly

identified by an authority figure, such as a teacher or instructor.

Multiplicity

The acknowledgment of multiplicity, or pluralism, is a component of Perry's scheme of intellectual development that is closely related to Perry's second major stage, relativism. Multiplicity, or the concept that there may be more than one right answer to an ethical or intellectual question, prompts the student to question the validity of pure dualism and consider a more ambiguous, relativistic cognitive position.

Relativism

The second major stage of Perry's scheme, relativism is a transitional stage in which students begin to realize the faults associated with pure dualism. The relenquishing of dualistic thinking patterns occurs gradually as students are exposed to questions without clear right or wrong answers. Examples of experiences that promote relativism include teachers requiring that students search for "truth" rather than passively accepting it, and peers offering conflicting values, experiences and cognitive styles. A more complete discussion of Perry's scheme of development is provided in the literature review section of this proposal.

Moral Development

Moral development has been defined by Kohlberg (1981) as movement through several stages characterized by different bases for moral decision-making. Kohlberg's theory, like Perry's, is not as dependent on content as on process. Classification of moral development level is based not simply on which moral choices are made, but on why such choices are made. For this reason Kohlberg's concept of moral development is often referred to as moral judgment or moral reasoning.

Ambiguity

The concept of intellectual or ethical ambiguity, as used in this study, refers to questions, situations or experiences which have no clear right or wrong answer. The concept that a question might have different and conflicting answers for different persons or different situations is unacceptable for persons with a basic dualistic thinking pattern.

External Locus of Control

The term "locus of control" (Rotter, 1966) in this study refers to the tendency to place responsibility for one's actions, circumstances or experiences within the self (internal locus of control) or outside the self (external locus of control). Research indicates that

fundamentalists tend to attribute circumstances and experiences to God, rather than personal choice.

CHAPTER II
REVIEW OF LITERATURE

The literature review is divided into four major sections: (a) fundamentalism, (b) intellectual development, (c) moral development and (d) faith development. A detailed description of Perry's (1968) scheme of intellectual development is also provided to ensure the reader's grasp of the construct of intellectual development as used in this study.

Fundamentalism

While the history of protestant fundamentalism is substantial, scientific research and particularly experimental data regarding the phenomenon is sparse. For this reason, much of the information that follows regarding the characteristics of fundamentalism has been gathered from the writings of scholars of religion and recognized experts in the fields of psychology of religion and theology. Additionally, some of this information is based on experiential, observational, and anecdotal data. Reports of scientific research are included where relevant.

History

Protestant fundamentalism is not a recent phenomenon. In the years from 1910 until 1915 a group of Protestant laymen, in response to perceived liberal Christianity, published a twelve-volume set of books entitled The Fundamentals (Torrey, 1917). Evangelical Christians adopting these writings for guidance in doctrine and practice became known as "fundamentalists." The resurgence of conservatism in Christianity in the latter half of the twentieth century brought a renewed interest in fundamentalism, and a new following among evangelicals (George, 1990).

In response to the liberalism of the 1960's, Protestant fundamentalism began to flourish in the 1970s and in the 1980s became a significant political and social influence in American society (Hanson, 1991; Hertzke, 1988; Hood, Morris & Watson, 1986; Lechner, 1989).

Characteristics

Protestant fundamentalism is generally defined as embracing five basic tenets; Biblical inerrancy, authority and literalism, virgin birth and deity of Christ, Christ's substitutionary atonement for man's sin, the bodily resurrection of Christ and Christ's physical return to earth, and a millenarian view of history (Ammerman, 1991; Burton, Johnson & Tamney, 1989; Evans & Berndt,

1988; Hanson, 1991; Kellestedt & Smidt, 1991; Marsden, 1980; McClatchie & Draguns, 1986; Neuhaus, 1990). The primary commonality among fundamentalists is their view and treatment of the Bible. This is also the major distinguishing factor of Protestant fundamentalism.

Biblical beliefs

Protestant fundamentalists adhere to three basic characteristics of scripture; innerancy, authority, and literalism.

Innerrancy. The basic Christian belief that the Bible is the inspired word of God is the root of fundamentalists' contention for innerancy.

Fundamentalists refuse to acknowledge any human error or influence in the writing or translation of the scriptures.

Belief that every word of the Bible is true may be the "most important characteristic of fundamentalism"

(Richardson & Bowden, 1983, p.223) with further support of this belief provided by Ammerman (1991), Boone (1989), Burton et al. (1989), Evans and Berndt (1988), Hanson (1991), Kellestedt and Smidt (1991), Marsden (1980), McClatchie and Dragun (1986), Neuhaus (1990) and Spinny (1991).

In their 1992 study of fundamentalism and religiosity, McFarland and Warren defined fundamentalism as "the belief in the infallibility and authority of the

Bible" (p. 168). While this is a very narrow definition of fundamentalism, it underscores the importance of Biblical inerrancy for fundamentalists. A well-worn fundamentalist expression that characterizes this tenet states "The Bible says it, I believe it, and that settles it". to which the fundamentalist preacher admonishes, "No, the Bible says it, and that settles it" (Powell, Gladson & Meyer, 1991, p. 348).

Authority. The inerrancy of the scripture is the prerequisite for the fundamentalists' belief in complete Biblical authority. Many fundamentalists' submission to pastors or other religious leaders is surpassed only by their commitment to the authority of the Bible. Hood, Morris and Watson (1986, p. 549) listed commitment to the "Bible as the authoritative word of God" as the primary defining characteristic of fundamentalism. Burton et al. (1989, p. 645) referred to the "primacy given to scripture in all matters" by fundamentalists, and Hill (1986) stated that fundamentalists' preoccupation with Biblical authority was the single factor that distinguished fundamentalists from other evangelical Christians. These observations were supported by McKenzie's (1986) statement that a commitment to Biblical authority is the most basic of fundamental dogmas.

Literalism. The fundamentalists' commitment to

scriptural innerancy and authority necessitates a literal interpretation of the scripture. Smidt (1988) found that persons identifying themselves as fundamentalists were more prone than others to agree with literal interpretations of the Bible. Subjection of scripture to interpretation and criticism, particularly by the laity, is a source of uncertainty and ambiguity that is not tolerated by fundamentalists (Eighmy, 1972). This affirmation of literal Biblical truth has been a continuing historical intent of the fundamentalist movement (Dollar, 1973).

Other Characteristics

In addition to the basic tenets listed above, protestant fundamentalism is characterized by a commitment to doctrinal purity gained by exposure and neutralization of all non-fundamental influences (Dollar, 1973; Lawrence, 1989), a commitment to evangelism and proselytizing (Kellestedt & Smidt, 1991; Peshkin, 1986) and a militant attitude (Hanson, 1991; Kellestedt & Smidt, 1991).

Preservation of fundamentalist doctrine requires a commitment to separatism (Ammerman, 1991; Marsden, 1980; McLoughlin, 1982; Ostow, 1990). Kellestedt and Smidt (1991) found that persons identified as fundamentalists were more likely to be separatist in their lifestyle than others. Whipple (1987) found, while working with battered

women from fundamentalist churches, that the women exhibited a strong "we vs. them" mentality (p. 256) that psychologically forced them to seek help only from the church. The fundamentalists' separatist lifestyle is a result of a pervasive protectionism that is designed to shield the laity and the young from any worldly influence that would damage or subvert the faith (Boone, 1989; Spinney, 1991).

Peshkin, in his extensive 1986 study of a K-12 fundamentalist school, found that teachers intentionally and severely limited students' opportunities for any cognitive, psychological or social interaction that would promote questioning or testing of intellectual boundaries. Parents and students were also committed to separatism. Enrollment required that students pledge to "protect my mind, body and morals from evil companions by not making them my intimate associates" (p. 311).

Psychological characteristics of fundamentalists include a tendency to deny ambiguity and refusal to acknowledge pluralities (Shelley, 1991). Edgington and Hutchinson (1990) found that fundamental seminarians scoring higher on an instrument measuring fundamentalism, dogmatism and authoritarianism tended to score lower on a measure of cognitive complexity than did other participants. This finding supported Feather's (1979) study that suggested an inverse relationship between

fundamentalism and imaginative, open-minded thinking patterns, thus supporting the contention that fundamentalists have difficulty dealing with ambiguous or pluralistic thought processes.

Peshkin (1986) reported that students in a particular fundamentalist school were "immersed in absolutist doctrine" (p.280) and that "teachers knowingly reject the ambiguity and freedom of choice that prevails beyond their conceptual boundaries" (p.285). Fundamentalist students consequently exhibit a seeming inability to tolerate questioning, doubt or uncertainty (Boone, 1989; Duffy, 1987; Evans & Berndt, 1988; Hartz & Everett, 1989; McCoughlin, 1982; McKenzie, 1986; Ostow, 1990). Intellectual legitimization and certainty, though normal human desires, are imperatives for the fundamentalist (Powell et al., 1991).

Ammerman (1991), Boone (1989), Hartz and Everett (1989), Heise and Steintz (1991), Hill (1986) and McCoughlin (1982) all characterized fundamentalists as submissive to all legitimized authority, and particularly religious authority, whether perceived as divine, scriptural or human. This characterization was supported by the research of Edgington and Hutchinson (1990) who reported a significant correlation between fundamentalism and authoritarianism, and the conclusions by Lupfer, Hopkinson and Kelley (1988) that a significant positive

relationship exists between Christian orthodoxy and authoritarianism. Denton (1990) concluded that fundamentalists' high level of dependency on authority figures results in a higher sense of external locus of control. Similarly, Gorsuch and Smith (1983) found that fundamentalists, more than non-fundamentalists, exhibit a tendency to attribute events and circumstances to God rather than other sources.

Fundamentalist authoritarianism and its resulting external locus of control was readily apparent in the 1988 Southern Baptist Convention resolution which rejected the responsibility of the Christian to read and "interpret the Bible in light of individual conscience" in favor of "pastoral authority and conformity to creedlike belief" (Rosenberg, 1989, p. 204). Further examples of authoritarianism were discovered by Peshkin (1986) who reported that parents of students at a fundamentalist school were required to pledge complete submission to the authority of the pastor, headmaster and teachers.

Pervasive Fundamentalism

Whereas the above research identified fundamentalism as a basic set of beliefs, others have perceived fundamentalism as a pervasive mindset that impacts attitudes, thoughts and actions. Duffy (1987) stated that for some fundamentalists "...absolutism pervades their

outlook on every matter, whether religious or secular" (p.404). Lechner (1989) proposed a model of "generic fundamentalism" (p.52) to delineate the pervasive nature of fundamentalism without any particular denominational bias. Lechner's model is built on four basic concepts; (1) true fundamentalism involves action, not just beliefs, (2) this action is based on a comprehensive world view of a desirable society of some kind, (3) there is a profound critique of modern society, (4) the correct response to society is to revitalize the true faith and to attempt to dedifferentiate society.

Assessment

Development of a valid and reliable instrument to assess protestant fundamentalism has been attempted by only a few researchers, as cited below, with most researchers failing to use scientific procedures. In fact, several researchers relied on purely demographic data to delineate fundamentalists from other Protestants (Chi & Houseknecht, 1985; Jelen, 1986; Wroebel & Stogner, 1988) and classified subjects as fundamentalists based on their denomination or church attendance. Other researchers (Burton et al., 1989; McFarland & Warren, 1992; Tamney & Johnson, 1988; Wilcox, 1989; Zern, 1989) attempted differentiation based on rather simplistic surveys of less than five items. Traditional measures of

religiosity and dogmatism utilized by Gorsuch and Smith (1983) and Edgington and Hutchinson (1990), and revisions of these, may provide a more adequate assessment of Protestant fundamentalism. However, these measures were not designed to specifically and intentionally measure fundamentalism.

In summary, the review of relevant research and commentary regarding Protestant fundamentalism revealed support for a basic characterization of fundamentalism that includes the following traits: commitment to Biblical inerrancy, authority and literalism; commitment to separatism from society; denial of ambiguity and pluralism; strict authoritarianism and external locus of control. In addition, fundamentalism is often perceived not simply as a set of religious beliefs, but as a pervasive lifestyle. Further, the review did not reveal a reliable and valid instrument for measuring Protestant fundamentalism, thus suggesting that perhaps less traditional approaches such as developmental assessment should be considered. Specifically, intellectual development, moral development and faith development assessment may provide a more valid indication of fundamentalism.

Perry's Scheme of Intellectual Development

In studying the intellectual development of college students, Perry (1968) defined intellectual development as movement through a sequence of cognitive-ethical positions. These positions were defined as progressive patterns of assimilation and accommodation of experience and information that occur during the college experience. Following its inception about 25 years ago, Perry's scheme of intellectual development has been widely accepted and researched. A computer search of Dissertation Abstracts International revealed that the scheme was utilized in more than eighty doctoral dissertations since 1980 and has been the basis for development of several instruments to measure intellectual development (Erwin, 1983; Kitchener, 1978; King, 1978; Knefelkamp, 1986; Parker, 1984; Roberts, 1977; Taylor, 1983). Perry's scheme is composed of three basic positions on the continuum of intellectual development of college students; the modification of dualism, the realization of relativism and the evolution of commitment. Perry found that as students moved through the college experience, they also moved through these three positions. To provide a clear understanding of Perry's scheme for the reader, a summary of the scheme is provided. This summary, except where noted, was taken from Forms of Intellectual and Ethical Development in the College Years: A Scheme (Perry, 1968).

Perry's scheme is based on the "making of meaning" (1980). Making of meaning incorporates two processes: (1) assimilation of presenting experiences into existing expectancies and assumptions and (2) accommodation of expectancies and assumptions to presenting experiences. Making of meaning requires order, or structure. This structure is the substance of Perry's findings.

In a long-range study that resulted in 464 individual interviews and 84 complete four-year histories of individual students, Perry and his associates delineated common epistemological and axiological structures and found the ordering of these structures to be "remarkably regular" (Perry, 1968, p.48) from student to student. This ordering of dualism, relativism, and commitment is the basis for Perry's theory.

The Modification of Dualism

The simplest outlook on knowledge and values found by Perry, basic dualism, was termed Position 1 (see Table 1 for an overview of Perry's nine positions). Basic dualism, according to the scheme, consists of a clear distinction between the concepts of "authority-right-we" versus "illegitimate-wrong-other" (1968, p.59). Morality and responsibility consist of simple obedience to authority. A key element of Perry's model is the non-differentiation between authority and absolute truth,

Table 1

Perry's Scheme of Intellectual Development

Position	Description
1. Basic dualism	Absolutism pervasive. Right vs. wrong, good vs. bad, we vs. others world view accepted without question. All problems soluble by conformity and submission to authority's instructions.
2. Multiplicity pre-legitimate	Mult. perceived, but not as a viable alternative. It is a device that authority (teacher) uses "to try to make us think for ourselves. They know the answers, but won't tell us".
3. Multiplicity subordinate	Mult. perceived, but only in situations where right or wrong answers have not yet been discovered, thus trust in authority is not threatened.
4. Mult. correlate, rel. subordinate	Mult. legitimized as only pertaining to issues that are inaccessible and have no real impact on human affairs. Mult. still viewed as "how authority wants us to think" rather than a product of the nature of knowledge.
5. Relativism correlate	World divided into those areas where authority has definite right or wrong answers vs. areas where authority truly does not have answers and relativism must be invoked.
6-9. Commitment	Relativism accepted, but need for commitment acknowledged. Tentative commitments refined, in spite of conflict.

indistinguishable in this stage of dualism. With the absence of differentiation, a closed system of knowledge with no room for doubt or disobedience develops.

In the college experience, Perry proposed, teachers are perceived as authority figures with the responsibility for telling the student what the truth is, what to think, what to believe and what to do. Students grounded solidly in dualism will accept the teacher's word as truth and will have a fear of questioning since questioning authority has been "assigned to the outer darkness of the illegitimate-wrong-other" (p.63). Dualism therefore provides the student with a world free of conflict. All differences from authority are lumped together as bad and evil and have no potential for legitimacy. In fact this illegitimacy confirms the rightness and goodness of authority.

Perry concluded that two crucial experiences occur as students interact with faculty members: exposure to unproven theory and exposure to teachers who readily admit they do not know all the answers. These experiences present students with an opportunity to begin to distinguish between authority and absolute truth. As this distinction is encountered, the chaos of multiplicity is seen as a device for the teacher/authority to "get us to think and find the truth for ourselves" (p.78). Multiplicity is seen as a temporary obstacle to overcome

in finding the correct answer (Positions 2 and 3). By placing multiplicity in this framework, the student is able to preserve dualism and maintain loyalty to authority. Perry stated that at this point the student relegates pluralism, or multiplicity, to the status of appearance only, since it disappears when the absolute truth is finally found. As the student moves toward relativism, this multiplicity will become legitimized through the admission that although there may be an absolute truth in every situation, there are some truths that simply cannot be found (Position 4). Diversity, although subordinate to dualism, is no longer only a stepping stone to absolute answers, but is a reality.

Realization of Relativism

To this point in Perry's scheme, any conflicts in epistemological assumptions and actual experience have been accommodated into the over-reaching and fundamental dualism. In Perry's Position 5 (see Table 1), however, a revolution in structure occurs. Relativism is elevated from its subordinate position to a contextual position, and dualism is set aside for special cases. Relativism becomes the common, habitual structural characteristic for all thought. Relativism was defined by Perry as "a plurality of points of view, interpretations, frames of reference, value systems and contingencies...(that)

allow(s) for various sorts of analysis, comparison and evaluation in multiplicity" (1968, glossary). Movement into relativism precipitates a change in relationship to authority. Realization that authorities (teachers) themselves are searching for knowledge and truth causes these authorities to "lose their cosmic aura" (p.122). The result is a more horizontal community structure and shared context.

Perry and his associates found that acceptance of relativism (Position 5) is a developmental point-of-no-return in that no student accepting a relativistic epistemological context showed any "evidence of regression to absolutism" (p.130). Here Perry made a special allowance for faith development. The embracing of a religious absolutism in the context of a relativistic world was viewed by Perry not as regression to dualism but rather as a movement toward faith. This faith is a faith that is discovered, and accepted as a conscious action, not as a mandate from authority.

Evolution of Commitment

As multiplicity evolves into relativism, the lack of direction inherent in pure pluralism is dispelled somewhat through gains in reasoning. According to Perry, for the student to establish an identity in the face of relativism, there must be a sense of continuity of

knowledge and values. This continuity is a product of commitment. Perry stated that a purely relativistic world presents the possibility of a "humanly unbearable disorientation" (p.135). Although appreciative of the freedom of relativism, students will ultimately seek the order and stability of commitment (Position 6).

After realization of the need for commitment to establish order and identity, a student in Perry's Position 7 will make an initial commitment. This commitment will be content-based and will provide a sense of relief in a settled issue. Position 8 sees the person becoming more "stylized" (p.154) in commitment; realizing the implications that commitment brings. Perry's Position 9 involves the deepening and broadening of commitment and the acceptance of choice and responsibility as a lifestyle.

Alternatives to Growth

Although Perry's scheme may appear as a linear concept of development, it is more accurately described (1968) as wave-like, occurring in surges impacted by periods of non-development.

Perry and his associates noted that at times certain students would remain at a position for a full academic year. This was not a hostile or dormant action, but rather seemed to be a period of waiting. The researchers

termed this action temporizing (p.177). Temporizing could occur at any position of the scheme but was seen most frequently at Position Six, as students postponed the leap of faith into commitment.

The concept of retreat (p.75) was used to describe entrenchment in the dualism of Positions Two and Three. Although regression is possible at any stage of the scheme, it was observed most often at these positions. The incidence of retreat was fairly rare in the study, but was dramatic and intense when it did occur. Retreat seemed to be mainly a response to highly authoritarian emotional control. Perry proposed that students who are emotionally bound to an absolute-authority-obedience model may feel they have no choice but to retreat when faced with pluralism.

Escape (p. 107) occurs particularly in the middle and late positions and may take one of three forms. A person may choose to remain in a context of multiplicity and refuse any responsibility. Perry designated this as dissociation. Escape into relativism, resulting in exploitation and gamesmanship was termed encapsulation. Third, "escape into commitment" (p.166) involves the making of an initial commitment not as a developmental step, but as an avoidance of multiplicity, usually taking the appearance of total absorption into some interest or event. Perry did not consider any of these alternatives

terminal, and in fact stated that they may strengthen resolve to grow in some instances.

Implications of Perry's Scheme

There are several important implications from Perry's findings. First, Perry's scheme supposes a definite ordering of the transformation of epistemological and axiological structures in college students. Second, a distinction is drawn between a commitment in which a hypothesis is accorded faith and a commitment in which a hypothesis is accepted, uncontested, as absolute truth. Third, Perry proposed that significant instructional moments occur in the transition from dualistic absolutism to relativism, the existence of which should impact educational guidance, grouping, curriculum design and teaching methods. Fourth, Perry's scheme allows for faith development and religious commitment that is self-determined and consciously chosen.

Research Related to Perry's Scheme

Perry's scheme has been directly and indirectly supported by other theorists and researchers in educational psychology and higher education. Support for Perry's research was provided by the Reflective Judgment model designed by Kitchener (1978) and King (1978). The Reflective Judgment model is very similar to Perry's

scheme and is distinguished primarily by a separation of epistemological constructs with Kitchener and King's latter developmental stages making a qualitative distinction between the constructs of knowledge and truth.

Perry's scheme was supported by the research of White and Hood (1989) who, in an evaluation of assessment instruments, found a negative correlation between dualism and relativism and a negative correlation between dualism and commitment indicating a significant shift in thinking patterns as students moved from dualism to the two latter stages.

Assessment

Further support of Perry's scheme has been found by researchers developing instrumentation to assess intellectual development. The most frequently utilized assessment instrument is the Measure of Intellectual Development (MID) (Knefelkamp, 1984). Other instruments based on Perry's scheme or the Reflective Judgment model are the Scale of Intellectual Development (SID) (Erwin, 1983), the Measure of Epistemological Reflection (MER) (Taylor, 1983), the Scales of Intellectual and Ethical Development (SEID) (Roberts, 1977), the Reflective Judgement Interview (RJI) (Kitchener, 1978; King, 1978), the Learning Environment Preferences (LEP) (Moore, 1987)

and the Parker Cognitive Development Inventory (PCDI) (Parker, 1984).

Although Perry's original findings were based on interviews and ratings by trained raters, objective instruments (MER, SID, PCDI) have correlated positively with interview procedures (Baxter-Magolda, 1987) indicating the validity of objective measurement of Perry's scheme. Some criticism has been made of objective Perry-based instruments regarding their lack of pure representation of Perry's positions. For example, the SID yields scores for Dualism, Relativism and Commitment rather than specific Positions 1 through 9 of Perry's theory. In defense of the use of objective instruments to measure Perry's scheme, generative paragraph-completion or interview assessment is expensive, time-consuming and requires expertly trained raters (Stonewater, Stonewater & Hadley, 1986).

Higher Education and Intellectual Development

The review of relevant research indicated several facets of educational psychology and higher education that have been impacted by Perry's scheme of intellectual development. Gordon (1981) addressed the need for assessment of intellectual level prior to the academic advising of freshmen students. To avoid placing freshmen students in academic situations for which they are not

intellectually prepared, advisors should be aware of and consider the level of dualism, in particular, prior to advising students.

As students matriculate through their college experience, Perry's scheme was described as viable for continuing to assess intellectual and ethical growth. Using a pre-post test research design and 228 freshman students, Wright (1989) found that most participants achieved significant growth on the Perry scheme during their first year of college. Wright's findings supported Arcady's (1988) study in which freshmen students increased their MID scores significantly during their first year, thus suggesting that induction into the college experience significantly impacts intellectual development. In addition, Arcady found that students who chose an interdisciplinary first-year curriculum had, on the average, higher MID scores than students in a traditional program. Arcady reported a significant positive relationship between high MID, interdisciplinary curriculum and high ACT scores, but did not find a significant relationship between change on MID and year-end grade point average (GPA) for all students in the study.

The relationship of intellectual development level and American College Testing (ACT) scores has received a moderate amount of attention in recent research. Darden

(1987) found a significant positive relationship between freshman students' MID scores and ACT scores. In addition, students with high MID scores and high ACT scores were more likely to choose an interdisciplinary program (rather than a traditional program) than students with low MID and ACT.

Although some results indicate a link between ACT scores and intellectual development, it should be noted that researchers (Arcady, 1988; Freiden-Graham, 1988) did not find a significant correlation between MID scores and GPA, thus suggesting that intellectual development may not be a predictor of academic performance.

Kemmerer (1987) indicated that intellectual development may be linked to achievement orientation. Results from this study of college freshmen showed that students identified as high-achievers scored significantly higher on the MID than did students identified as underachievers. Not only motivation, but ability to benefit in the classroom may be effected by level of development. Niggle (1989) used the SID to measure dualism in elementary and secondary teachers and concluded that readiness to learn was hampered by high levels of dualism. The reader should note that the MID and SID are measures of growth on Perry's scheme and do not reflect levels of general or specific intelligence.

In addition, low intellectual development may hinder learning by contributing to psychosocial developmental problems. Polskonik and Winston (1989), in a year-long longitudinal study of student developmental tasks, compared scores on the Reflective Judgment Inventory (Kitchener, 1978; King, 1978) and the Student Developmental Task Inventory-Second Edition (SDTI-2) (Winston, Miller & Prince, 1979). They concluded that students' cognitive development was intertwined with and interdependent on certain aspects of psychosocial development. This study supported the findings of Curtis (1988) in which students' scores on an anger-suppression scale were significantly negatively correlated with their scores on the MID.

Knowledge of intellectual development levels and use of Perry's scheme in the classroom is an area of research that has received sparse attention in the current literature. Knowledge of Perry's scheme can be put to productive use as evidenced by Burnham (1982) who developed a creative writing class based on Perry's positions and Mellon and Sass (1981) who advocated the use of the Perry scheme in course design across the curriculum. Further support was provided by Hadley and Graham (1987) who investigated the relationship of Perry's position and perception of environmental press in the classroom. Hadley and Graham's research pointed out the

need for implementation of Perry's principles in design of classroom environments as well as in development of course content.

The entire campus environment is impacted by students' levels of intellectual development. In a review of work focusing on Perry's scheme, Rodgers (1980) concluded that dualistic students are supported by campus environments which are highly structured, have limited degrees of freedom and have warm personal atmospheres. By contrast, relativistic students are attracted to diversity and indirect, vicarious learning experiences, extensive freedom and less structure.

Research assessing intellectual development over the course of the college experience generally offered support for Perry's scheme and the impact of higher education on intellectual development. Longitudinal studies comparing students' levels of development indicated a definite pattern of growth during the college experience (Khalili & Hood, 1983; Welfel, 1982; Welfel & Davison, 1986).

Current research is not conclusive regarding whether it is the college experience or simply an increase in age that explains the change in developmental level of young adults during the years from the late teens to the mid-twenties. Acebo (1988) did not find any significant differences in MID scores across three different age groups of beginning college students, suggesting that it

is the college experience, rather than age that promotes the growth. Pascarella (1989) reported supporting results in a comparative study of freshman students and high school graduates who did not attend college. Pascarella found that college attendance did significantly improve critical thinking skills and move students along an intellectual development continuum. In fact, there is some evidence (Deopere, 1987) that right-wrong thinking may increase with age without the intervention of higher education.

Conflicting results were obtained by Schmidt (1985) in a study comparing traditional aged (18 years) freshmen, non-traditional aged (21 years) freshmen and traditional aged (21 years) junior students. Schmidt found that education and age seemed to work together to affect intellectual growth as the non-traditional freshmen scored higher on the RJI than did traditional freshmen, but lower than the traditional aged juniors. Schmidt reported that age had a significant impact on development, particularly with regard to female participants. While the research suggests that the college experience is important in increasing intellectual development, the research results nevertheless are inconclusive and indicate a need for further research to determine the true nature of the relationship between age, education and development on the Perry scheme.

Gender Differences

Several significant studies have been conducted to assess possible gender differences in students' intellectual development. Frieden-Graham (1988) compared students in an interdisciplinary program to those in a traditional program and found that men in the interdisciplinary program experienced more change in MID score than men in the traditional program. On the other hand, women showed no significant difference from program to program, thus suggesting that male students benefited more from a non-traditional approach. Kemmerer (1987) found that female students scored significantly higher on the MID than males. Similarly, Darden (1987) reported that female students entered college at significantly higher levels of intellectual development than did males. In contrast, Alishio (1983) did not find any significant structural differences between male and female participants. Alishio did, however, report some content differences between genders in that men tended to focus on occupational issues and women focused on interpersonal or sexual issues. Baxter-Magolda (1989,1990) reported similar results in a longitudinal study of college freshmen; their results did not indicate any significant cognitive structural differences between male and female participants and no significant differences between male and female participants in learning styles.

Baxter-Magolda did find a difference in the rate of movement from one stage to another as females moved more slowly from Perry's Position One to Position Three than did males. Findings from the study also implied a difference in the way males and females view the acquisition of knowledge, with female participants taking less initiative in learning, being more prone to collect others' ideas and placing greater emphasis on personal interpretation than male participants. Although some research suggests gender differences in intellectual development as defined by Perry, there are discrepant findings that indicate a need for further research in this area.

Impact of Religious Beliefs on Development

The relationship between fundamental religious thinking and intellectual development has been addressed only moderately in current research with a general indication that an inverse relationship exists. Nevard (1988) compared a control group of students from the University of Northern Colorado, a second group involved in Campus Crusade for Christ and a third group of students from Colorado Christian College and found that evangelical Christian students did not score high on Perry's scheme because their thinking reflected a right-wrong pattern. Results indicated no significant differences related to

gender or college classification. Nevard's results were supported by Evans (1988) who found that seniors at a Seventh Day Adventist college ranked low on the Reflective Judgment Interview. Evans suggested that the students had trouble separating ideas from the people who hold them, a basic characteristic of Perry's dualism.

The tendency for evangelical Christian students to exhibit a dualistic framework was substantiated by Shaver's (1985) study using Rest's (1974) Defining Issues Test. Powers (1985) also concluded that students who belonged to Protestant student organizations scored low on the MID because of dualistic thinking. These findings were supported by Edgington and Hutchinson (1990), who found a significant negative relationship between conservative religious attitudes and complex thinking patterns. In addition, Feather (1979) found an inverse relationship between religious conservatism and open-mindedness. A somewhat opposing viewpoint was offered by Kwilecki (1988a). Following extensive interviews with subjects from two rural counties in Georgia, Kwilecki concluded that some Protestant fundamentalists were active, analytical thinkers. She proposed that some fundamentalists fit an "articulate authoritarian" (p. 231) personality type that comes to religious commitment absolutely, yet thoughtfully.

The review of research provided support for Perry's scheme as a reliable theory of intellectual development for college students. In addition, research indicated that growth on the Perry scheme may be positively related to several factors that contribute to learning and academic success. Although support for growth on the scheme during the college years is clear, it is unclear from the research whether this growth is due to the college experience or independent maturation. Research regarding gender differences and intellectual development was also inconclusive, while research regarding religious attitudes indicated an inverse relationship between Protestant fundamentalist attitudes and intellectual development. A review of research regarding assessment of Perry's scheme revealed several valid and reliable objective instruments that may be utilized in place of traditional interviews and essay-based assessment.

Moral Development

The six-stage moral judgment theory of Lawrence Kohlberg (1969, 1981) described moral judgment development from adolescence and continuing into adulthood. General support for Kohlberg's hierarchical and sequential theory has included the work of Carroll and Rest (1981), Davison and Robbins (1978), Rest (1973) and Walker, DeVries and Bichard (1984). Since Kohlberg's theory is widely

recognized as a valid scheme of moral development, a brief description of the theory has been offered here. For a detailed discussion of the theory, the reader is referred to Kohlberg's Essays on Moral Development, Volumes 1 and 2 (1981).

Kohlberg's Theory of Moral Judgment

Kohlberg's theory (see Table 2) consists of three basic levels of moral judgment (A, B and C) and a fourth transitional level (B/C) between levels B and C. Within each level Kohlberg proposed two stages of development, numbered 1 through 6. (Note: Stage 6, although included here, is rarely utilized in research.) Level A was termed the preconventional level. Stage 1 of Level A is "The Stage of Punishment and Obedience" (1981, p.409). A person in Stage 1 perceives "right" as obedience to authority and rules. The motivation for this obedience is egocentric and based on avoidance of punishment. No consideration is given to the interests or needs of others.

Stage 2 is "The Stage of Individual Instrumental Purpose and Exchange" (p.409). While more complex than Stage 1, this stage is equally egocentric and focused on satisfaction of personal needs, regardless of the interests of others. "Right" is what is fair or equal. There is a realization of others' needs and their possible conflict with personal desires, but this conflict is

Table 2

Kohlberg's Stages of Moral Judgement

Level/Stage	Description
A/1. Punishment and obedience	Right = obedience to rules and authority, avoiding punishment, doing no harm. Egocentric view.
A/2. Individual instrumental purpose and exchange	Right = serving one's own or other's needs, fair deals in terms of concrete exchange. Individualist view.
B/3. Mutual interpersonal expectations	Right = playing "nice" role, concerned about others, conformity, loyalty, trust with partners, fulfilling expectations. Relational view.
B/4. Social system and conscience maintenance	Right = doing one's duty in society, upholding social order and maintaining the welfare of the society or group. Societal view.
B-C/4.5. Transition	Choice is personal, subjective and emotional. "Conscience", "right" and "duty" are arbitrary and relative.
C/5. Prior rights and social contract or utility	Right = basic values, rights and contracts of society, even when in conflict with the laws and rules of the group. Prior-to-society view.
C/6. Universal ethical principles	Right = assumption of guidance by universal ethical principles that all humanity should follow.

resolved through fair deals or equal exchange of goods or services.

Level B is the conventional level of moral judgment and contains Stages 3 and 4. Stage 3 is "The Stage of Mutual Interpersonal Expectations, Relationships and Conformity" (p.410) and takes the perspective of the person in relation to significant others. Shared feelings and agreements are more important than personal desires. It is extremely important to be recognized as a "good" person. Although egocentrism is reduced and the perspectives of others are acknowledged, needs and requirements of the social system are not realized.

Stage 4 is "The Stage of Social System and Conscience Maintenance" (p.410) and is characterized by the primacy of the societal perspective. The "system" provides order and rules, and individual needs are analyzed in light of systemic needs.

Between Stages 4 and 5 Kohlberg interjected a transitional level (B/C) that is marked by a relativism in which personal choice, emotion and conscience begin to transcend ideas such as "duty" and "rightness." Kohlberg felt that this level was not conventional and yet not fully postconventional. The dynamic implications of this relativistic level and its obvious connection to Perry's scheme were discussed at length by Gilligan (1980). Gilligan perceived Perry's view of relativism to be in

conflict with Kohlberg's view of level B/C. A more compatible relationship between Perry's scheme and Kohlberg's theory has been proposed by other researchers including Evans (1987), Sprinthall and McVay (1987) and Thomas, Murrell and Chickering (1982) who advocated a combination of the theories for practical application to higher education programs.

Stage 5 reasoning marks movement into the postconventional level (C) and was named "The Stage of Prior Rights and Social Contract or Utility" (p.411). This stage is characterized by a commitment to upholding the basic rights and values of society, even if they conflict with legal rules or contracts. Motivation is based on "the greatest good for the greatest number" (p.411). Stage 6, or "The Stage of Universal Ethical Principles" (P.411), assumes that there are universal principles that should guide human behavior, and these principles should be acted upon, even if they conflict with law. Motivation for behavior consists of commitment to a rationally chosen, not inherited, set of values. It should be noted that, for some readers, the utilitarian aspect of this position may indicate a limitation of the application of Kohlberg's theory.

Support and Criticism of Kohlberg

Kohlberg (1981) proposed that persons move through this hierarchy as they are exposed to moral reasoning one stage higher than their own. This plus-one theory of growth is based on the concept of cognitive disequilibrium. Presumably, as persons are confronted with higher-stage reasoning, they experience cognitive disequilibrium and tend to adjust their own reasoning to the next higher level to alleviate the disequilibrium. This plus-one pattern was challenged by Haan (1985) who compared gains in development utilizing the plus-one method to gains in development using a social-interactive method. Haan concluded that although cognitive disequilibrium was present and seemed to prompt development, the "development seems to rise out of the emotional, interactive experience of moral-social conflict and not from the cognitive experience of finding one's reasoning in disagreement with another's higher stage reasoning" (p.1005). This criticism of Kohlberg's theory was not supported by the findings of Walker, DeVries and Bichard (1984) who reported that participants showed a clear preference for next-higher-level statements, without influence of social interaction. Moran and Joniak (1979) criticized Kohlberg's theory and proposed a language bias in his work. They found that when all statements were presented in sophisticated

language, participants had no preference for reasoning one stage above, or one stage below their own. They concluded that separation into levels of moral reasoning was a function of understanding the language used to present stage-prototypic statements. As stated earlier, a study by Walker, Devries and Bichard (1984) did not provide support for the research reported by Moran and Joniak. In contrast, Walker et al. (1984) found support for Kohlberg's work and concluded "These stages represent more than differences in language; indeed there are differences in meaning across the stages that subjects can recognize" (p.965). They also concluded that understanding of the stage-prototypic statements was limited to about one stage above the subject's own, implying that understanding precedes production of moral decisions by about one stage.

Perhaps the most significant criticism of Kohlberg was Gilligan's (1977) research. Gilligan proposed that Kohlberg's theory did not adequately represent the moral development of women and that because of women's strong tendency toward affiliation and interpersonal needs, they actually develop differently than men with regard to moral judgement. Gilligan stated that women are typically more concerned with interpersonal issues than are men and that women tend to view moral judgments in light of interpersonal relations. Conversely, men are less

concerned with interpersonal issues and show greater tendencies to focus on abstract principles.

Gilligan's criticism of Kohlberg's theory reflected the findings of researchers such as White (1975) who found significant gender differences in level of moral development among adolescents and Holstein (1973) who reported that women were four times more likely to remain at stage 3 reasoning than were men.

Although Gilligan's challenge has been supported by some research, conflicting results were found by Rest (1979a) in a review of studies utilizing the Defining Issues Test (DIT). Rest reported that of 22 studies utilizing the DIT, significant sex differences in P (principled reasoning) score were found in only two studies, and in both cases females scored higher than males. Rest's results were supported by Kitchener, King, Davison, Parker and Wood (1984) using a pre-posttest design to study the moral development of adolescents and young adults. They found that women scored significantly higher than men in gains on the DIT. They also speculated that this difference was likely attributable to greater gains in verbal ability for the women in the study. Conflict with Gilligan's findings was also evident in the report of Shaver (1985) whose research did not find any overall gender differences on pre-posttest scores on the DIT. In summary, while research is suggestive of gender

differences in moral development, results are far from conclusive regarding this issue.

Factors Related to Moral Development

Education. A significant positive relationship between educational level and development of moral reasoning was reported by Deemer (1989). In a pre-posttest design using 102 participants of differing educational levels, Deemer reported that when participants were engaged in intellectually stimulating endeavors, growth in moral judgment was facilitated. A study by Yeazell and Johnson (1988) using faculty and students in a teacher education program indicated that age and educational level were both predictors of moral judgment level, with educational level being the most significant predictor. Rest (1984), in a review of findings on the DIT, reported that DIT scores were consistently more highly correlated with years of education than with chronological age.

Although not conflicting, the work of Lonky, Kaus and Roodin (1984) found that significant cognitive experiences were a predictor of moral judgment development, irrespective of education. Their findings indicated that life experiences that necessitated a person "coming to terms" with human existentialism significantly influenced growth in moral reasoning. These results implied that

other factors, together with educational level, may significantly influence moral judgement.

Religious factors. Rowen (1983) proposed that Kohlberg's theory did not adequately represent the Christian faith experience, due to the impact of spiritual authority on the life of the Christian. Richards (1991) concurred with Rowen that Kohlberg's theory and subsequently Rest's DIT were biased against conservative religious individuals. This idea was not supported by the work of Shaver (1985) in a pre-posttest design using evangelical Christian students at Wheaton College as participants. Shaver reported that students moved from a predominantly Stage 4 representation to a predominantly Stage 5 representation during the course of their education at Wheaton. He concluded that Kohlberg's theory and Rest's DIT were valid and appropriate for use with did not ristian students. It should be noted that Shaver did not make any distinction between denominations, level of religiosity, dogmatism or fundamentalism. This lack of distinction could prompt an inaccurate generalization of evangelical Christians as a homogeneous population. Based on the research of Philibert (1982) these distinctions may be significant. Philibert compared responses from Christian educators representing six denominations (Catholic, Episcopal, Methodist, Presbyterian, Southern Baptist and Church of God) on questions related to goals

and priorities for their religious education programs. Results showed that the Baptist and Church of God respondents indicated a higher commitment to personal spiritual and devotional life than to ecumenism, moral maturity, and social justice. The other respondents indicated opposite results. Philibert equated an emphasis on ecumenism, moral maturity and social justice with postconventional reasoning, as defined by Kohlberg, and the emphasis on personal spiritual life as conventional reasoning. To assume an association between Kohlberg's levels and religious factors may be premature; however, the difference in emphases reported does indicate a need for further investigation.

An inverse relationship between religious conservatism and moral development was reported by Ernsberger and Manaster (1981). Their comparison of persons from four congregations (Baptist, Lutheran, Unitarian and Methodist) on DIT scores revealed significant differences in mean P (principled reasoning) scores (Unitarian, 52.6; Methodist, 46.6; Lutheran, 34.9; Baptist, 30.1), thus indicating that as religious conservatism increases, preference for principled moral reasoning decreases.

Supporting evidence of an inverse relationship between evangelical Christianity and moral reasoning was reported by Clouse (1985). In a study of over 300 college

students, she found that students who were conservative in their Christian faith were much less likely than students who were liberal in their Christian faith to choose postconventional statements on the DIT. This research supported prior research by Brown and Annis (1978) which suggested that an inverse relationship existed between acceptance of Biblical literalism and moral judgment development.

As stated earlier, Richards (1991) proposed that the DIT is biased against conservative Christians inasmuch as statements reflecting reliance on spiritual authority are relegated to Stage 4, and responses regarding God and the Bible are considered reflective of Stage 2 reasoning. Richards' proposal was not supported by Dirks' (1988) extensive review of research regarding moral development in which Dirks concluded that although some statements on the DIT may be biased against conservative Christians, choice of these statements, alone, is not significant enough to result in a lower stage score, overall. Dirks stated that "apparently the DIT does not appreciably prejudice against Christians. Other less palatable reasons for evangelicals rarely scoring on the principled reasoning level must be considered" (p.327). In summarizing the research, Hanson (1991) wrote that, in spite of significant amounts of research, the relationship between religious fundamentalism and moral reasoning stage

is inconclusive and can not solely account for explanation or prediction of ethical behavior.

In summary, the research on moral development indicated that while there have been some significant criticisms of Kohlberg, his theory has generally been accepted and supported as a valid perspective from which to study moral reasoning development. Research was inconclusive regarding sexual bias against women and possible bias against conservative Christians, and while some conflicting results have been reported, there was general support for an inverse relationship between religious fundamentalism and moral reasoning development. With regard to the link between the Kohlberg and Perry models, the relationship of Kohlberg's theory to Perry's scheme of intellectual development seems generally to be complementary, although differing views of the relativism stage have been reported.

Faith Development

Although intellectual and moral development lend insight into young adult development, a review of faith development provides a clearer perspective on the developmental processes of college students. Specifically, the work by Fowler (1981) will add further insight. For additional information on faith development theory, the reader is referred to Stages of Faith: The

Psychology of Human Development and the Quest for Meaning
(Fowler, 1981).

Fowler's Theory of Faith Stages

In 1981, Fowler initially proposed a theory of faith development consisting of six stages (see Table 3). In a more recent presentation Fowler (1991) offered a slight modification of the original theory and proposed a seventh stage of faith development. The following description, unless otherwise noted, is from Fowler's 1991 version of the theory. Fowler reported that faith is a "dynamic and generic human experience" (p.31) that may include, but is not necessarily the same as, religion. Faith may be non-religious, and even anti-religious. Examples of non-religious faith include communism and pure humanism.

Fowler stated that three basic concepts or dimensions of faith must be realized. These concepts are that faith is "a dynamic pattern of personal trust in and loyalty to a center or centers of value", that faith is "trust in and loyalty to images and realities of power" and that "faith is trust in and loyalty to a shared master story or core story" (p.32). Thus the stages of faith are based on three dimensions; centers of value, images of power and a master story.

Fowler's theory is based on interviews, averaging about two hours per interview, with more than 500 subjects describing in detail their personal faith experience.

Table 3

Fowler's Stages of Faith Development

Stage	Description
1. Primal faith	Rudimentary and basic. Based on rituals of care, bonding, and family nurturing. Pre-linguistic.
2. Intuitive-projective faith	Dominated by fantasy and imagination. Awareness of taboo and sacred images, threatening and protective powers and representations of God emerge. Language acquisition stage.
3. Mythic-literal faith	Ability to distinguish real images from fantasy. Ability to take perspective of others and realize meaning from narratives and faith stories. Concrete-operational stage.
4. Synthetic-conventional faith	Abstract ideas and concepts emerge. Identity and personal relationships begin to impact faith. Development of ideals and values is prominent. Generally coincides with formal operational thinking.
5. Individuative-reflective faith	Critical analysis of symbols, and beliefs. Faith commitments become explicit, rather than tacit. Development of "executive ego" as life manager.
6. Conjunctive faith	Midlife or beyond, involves embracing and integrating polarities of masculinity and femininity, good and evil, construction and destruction. Integrates truths of myth and symbol.
7. Universalizing faith	Complete decentration from self, taking perspective of God. Total commitment to love and justice.

From the analyses of these interviews, Fowler and his associates developed seven stages of faith consciousness: primal faith, intuitive-projective faith, mythic-literal faith, synthetic-conventional faith, individuative-reflective faith, conjunctive faith and universalizing faith. The first of the seven stages is termed primal faith.

Primal faith is the rudimentary faith that is revealed in our relationship, as infants, to parents and other significant others. This faith is based on basic care and nurturing and is heavily dependent on family structure. This first stage of Fowler's theory (1991) was termed "undifferentiated faith" in Fowler's earlier writings and was not considered a true faith stage.

Stage 2 faith which emerges in early childhood is intuitive-projective faith. This second stage, characterized by fantasy and imitation, is dominated by imagination and is uninhibited by rational thought (Rowen, 1983). As Stage 3, mythic-literal faith, emerges in elementary school years, the cognitive processes of concrete-operational thinking allow for the separation of fantasy from reality. During Stage 3, the child can realize the perspectives of others and begins to take on some of the beliefs and observances that are important to the faith community (Rowen, 1983).

In adolescence, synthetic-conventional faith emerges. This stage, Stage 4, is marked by the advent of formal operational thinking and the ability to consider abstractions and concepts. Adolescents in Stage 4 are keenly aware of the expectations and opinions of others and begin to experience themselves in light of what others think about them. A search for confirmation of identity and integration of the self is a key characteristic of synthetic-conventional faith. Although this stage arises in adolescence, it becomes a permanent mode of faith for many adults. In fact, individuals in Stage 4 may become so sensitively attuned to the perceptions of others that they are unable to develop autonomy and independent judgement (Rowen, 1983).

Fowler concluded that in order to reach Stage 5, individuative-reflective faith, two conditions must be present. First, the individual must question and analyze the values and beliefs that he/she has acquired. Commitments which were unexamined, unconsidered or uncritically approved must become consciously chosen and critically approved. Fowler called this process "demythologization" (1991, p.37). The second condition that must be met is the formation of an "executive ego" (p.38). The executive ego is the life-manager and represents personal control over one's life. The self is managed, by the executive ego, not only in terms of

relationships to others, but also in terms of an autonomous identity. Fowler characterized this stage (Stage 5) by the asking of questions such as "Who am I when I am not defined as being my parents' son or daughter?" or "Who am I when I am not defined as being someone's spouse?" (p.38). It is through the formation of the executive ego that answers to the above and similar questions can be found.

At mid-life, or at some point beyond, Stage 6 faith emerges. Fowler named this stage conjunctive faith. Conjunctive faith focuses on an integration of opposites and polarities as the individual realizes the importance of both myth and reality. Fowler stated that during this stage an individual, having rationally analyzed and critically approved his/her commitments, will experience a desire for deeper meaning to be found in the symbolism, stories, and myths of faith. The result of this desire is a "second naivete" (p.41) as the person submits to the "reality" of the faith stories and symbols.

Fowler's final stage (Stage 7) is called universalizing faith. Although Stage 7 is rarely attained, faith at this stage is exemplified by a oneness with the power of a transcendent being. Universalizing faith represents "the completion of a process of decentration from self" (p.41). Individuals in Stage 7 begin to see, perceive, and value through a transcendent

being, rather than through the self. Stage 7 of faith development is comparable to Kohlberg's elusive Stage 7 of moral development (Rowen,1983).

Related Research

Fowler's theory of the development of faith is a complex mixture of psychological and spiritual development that is not easily grasped on first reading. Gross (1981) characterized these stages as "progressive styles of life-philosophizing" (p.156). This description seems appropriate, since Fowler's theory encompasses more than the commonly held notion of religious faith. Fowler's work resulted in a redefining of terms that views faith not as something to be owned, but rather as a way of thinking and acting. Research regarding faith development has been sparse, likely due to lack of an objective assessment instrument. Consequently, few criticisms have been offered regarding Fowler's theory. Of the criticisms, Kwilecki (1988) argued that Fowler's theory does not take into account cultural differences and influences. Kwilecki proposed that faith development is dependent on life circumstances and Fowler's theory does not consider the very distinct situations that occur in different religions and in different countries. Although Kwilecki's argument, based on analysis of case studies,

has merit, she has been unable to provide clear empirical data to dispute Fowler.

Research and opinion on faith development has generally been supportive of Fowler's basic theory (Genia, 1992; Gross, 1981; Philibert, 1982; Rowen, 1983). Perhaps the most supportive was the 5-stage synthesis of Fowler's theory proposed by Genia (1992). Genia's theory is closely aligned to Fowler's theory and includes stages of faith titled: egocentric faith, dogmatic faith, transitional faith, reconstructed internalized faith and transcendent faith. Although Genia's theory of faith development seems plausible, empirical evidence for its validity was not offered.

Fundamentalism and Faith Development

The relationship of faith development and religious orientation and attitude has been addressed infrequently in current research. Some evidence exists to suggest that Christian fundamentalism may stifle the development of faith. Philibert (1982) surveyed religious educators from six Christian denominations to assess their preference for Stages 4, 5, and 6 of Fowler's theory. Results indicated that Baptist and Church of God participants had a much stronger preference for Stage 4 (synthetic-conventional) faith than for Stages 5 and 6. Baptist and Church of God respondents also showed a stronger preference for Stage 3

faith than did their Catholic, Episcopal, Presbyterian and Methodist counterparts. These results indicated not only an ideology, but also the possibility of a purposeful effort by conservative denominations to restrict opportunities for faith development.

This notion was supported by the work of Hill (1985), who reviewed research regarding faith development and concluded that a conservative religious background contributes to development of conventional faith (Fowler's Stage 4 and 5; indicative of Kohlberg's Stages 3 and 4) rather than postconventional faith (indicative of Fowler's Stages 6 and 7 and Kohlberg's Stages 5 and 6).

The probability of an inverse relationship between fundamentalism and faith development was given further credence by Furnham (1982) who found that fundamentalists tended to attribute locus of control to God significantly more often than did liberal religious thinkers. McIntosh (1985) corroborated the research by Furnham and reported an inverse relationship between fundamentalism and internal locus of control. McIntosh also found that internal locus of control was positively related to faith development. Although research is inconclusive there is a suggestion that a negative correlation exists between fundamentalism and faith development.

In summary the literature review indicated that there may be a relationship between fundamental religious

attitudes and developmental processes such as intellectual, moral and faith development in college students. The characteristics of Protestant fundamentalism presented in the literature review suggest a highly authoritarian, protectionistic and dualistic ideology. Further, there is evidence to indicate that this ideology may directly conflict with intellectual development as hypothesized by Perry, moral development as described by Kohlberg, and faith development as proposed by Fowler.

Problem Investigated

Since the research review was far from conclusive, there was a need for further research to more clearly identify and describe the relationship between fundamentalism and intellectual, moral and faith development, if indeed one does exist. To address this gap in understanding and research, this study assessed levels of fundamentalism, intellectual development and moral development among a sample of college students and examined the relationship between these variables. Specifically, the study investigated the following questions: (1) Do differences exist in levels of intellectual and moral development among subgroups of Protestant Christian college students, and (2) do differences exist among demographic groups of Christian

college students with regard to level of Protestant fundamentalism?

Null Hypotheses

The specific hypotheses of the present research stated in the null form are:

Hypothesis 1: There will be no significant difference in level of intellectual development and level of moral development among groups of participants scoring in the high range, middle range and low range on a measure of Protestant fundamentalism.

Hypothesis 2: There will be no significant differences among demographic groups with regard to scores on a measure of Protestant fundamentalism.

CHAPTER III

METHODOLOGY

The methodology used in the study is described in the following sections: Participants, Instruments, Research Procedures, and Research Design and Statistical Procedures.

Participants

Since research has indicated that significant differences exist in levels of conservative, fundamentalist thinking among different religious denominations, and to increase denominational diversity within the sample, participants for this study were chosen from the following regional, church-affiliated higher education institutions: Wayland Baptist University, Howard Payne University, Lubbock Christian University and McMurry University.

Participants for this research study were selected from the administration of instruments during undergraduate class meetings at the institutions. Participants from Wayland Baptist University were selected from three sources; a required freshman orientation course, elective introductory and upper-level psychology courses and required introductory and elective upper-level religion courses. Participants from Howard Payne

University, Lubbock Christian University and McMurry University were obtained from general elective introductory psychology and required introductory religion courses. These specific courses were chosen in order to provide a broad range of majors, ages and developmental levels. In spite of the attempt to diversify the sample and include a broad representation of students at the institutions, it should be noted that the sample may not be statistically representative of the populations of the four participating institutions.

In an attempt to obtain approximately 300 participants, 300 instrument packets were distributed to test administrators at Howard Payne University and McMurray University. The researcher produced 150 instrument packets for administration at Wayland Baptist University and Lubbock Christian University. The study was administered at Wayland and Lubbock Christian by the researcher. Administration at Howard Payne and McMurray was accomplished through faculty members at the institutions who agreed to assist the researcher with the project. These faculty members were instructed verbally and in writing regarding instrument administration. A copy of administration instructions can be found in Appendix B.

Of the 450 instrument packets produced, 336 were returned from administrators or collected by the

researcher. Of the returned packets, 94 were rejected for the following reasons; 5 were incomplete, 10 did not identify themselves as Christian, 24 did not identify themselves as Protestant and 55 did not meet age-range requirements. A total of 242 complete protocols were utilized in the data analysis.

Since this proposal was designed to conduct research on a sample of traditional-age Protestant college students, an effort was not made to select participants based on demographics other than self-identification as Protestant and appropriate age (17-23 yrs.). Although participants were not selected because of demographic information (other than as indicated above), demographic data and assessment data were collected and analyzed for each participant. A report of demographic characteristics will be presented in Chapter IV.

Instruments

Three assessment scales and a demographic data sheet were administered to each participant. A copy of the demographic sheet, the Copeland Fundamentalism Scale (CFS), the Scale of Intellectual Development (SID) (Erwin, 1981), and the Defining Issues Test (DIT) (Rest, 1974) is available in Appendix A.

Demographic Sheet

The demographic sheet also served as a general instruction sheet to participants and asked each participant to provide the following: age, gender, GPA, religious denomination, ethnic group, urban or rural background, college year classification, name of college, father's education and mother's education. In addition, participants were asked to respond to questions regarding Christianity. Specifically, participants were asked to indicate whether or not they classified themselves as "Christians," if they identified themselves as "born-again" and if they considered themselves "liberal," "moderate," "conservative" or "fundamental."

Scale of Intellectual Development

Assessment of intellectual development was accomplished using the Scale of Intellectual Development (SID) based on Perry's scheme of intellectual development (1968) and designed by Erwin (1981). The SID is a 115 item Likert-type scale that yields scores in four subscales: dualism, relativism, commitment and empathy.

In designing the original SID, Erwin used Perry's theory and the Scales of Ethical and Intellectual Development by Robert (1977) as his knowledge base. Erwin administered the original SID to 3,300 college freshmen between the ages of 16 and 25. Data were analyzed by

factor analysis to verify that the instrument identified the nine positions of Perry's scheme. Although nine positions were not identified, four major factors relating to Perry's major stages and accounting for 70% of the variance were identified. The four factors became the subscales for the SID. The first three scales measure dualism, relativism and commitment and the fourth scale measures the extent to which the subject feels responsible to society for his/her actions. Cronbach's alpha coefficient for each subscale was computed with reliability estimates of $r=.81$ (dualism), $r=.70$ (relativism), $r=.76$ (commitment) and $r=.73$ (empathy) (Erwin, 1992, p. 3).

Regarding concurrent validity, Erwin (1992) reported that scores on the SID correlated with Heath's (1968) Perceived Self Questionnaire, the Erwin Identity Scale (Erwin and Delworth, 1980), Allen's Paragraph Completion Instrument (Allen, 1983) and Batson and Ventis' Religious Life Inventory (Batson & Ventis, 1982). All of these provided support for the construct validity of the SID. In addition, Baxter-Magolda (1987), in an investigation of the validity of objective instruments measuring intellectual development, reported that the SID represented a valid measure of cognitive structures based on Perry's theory, an important finding in that Perry's scheme had previously been assessed only by interview

methods. Further credence for establishing the validity of the SID was provided by Stonewater, Stonewater and Hadley (1986) who reported that Erwin's dualism subscale represented a valid measure of students at various levels of intellectual development. Conversely, Stonewater, Stonewater and Hadley concluded that the relativism, commitment and empathy subscales of the SID did not clearly reflect Perry's scheme. It should be noted that Stonewater, Stonewater and Hadley also reported low inter-rater reliability on the independent measure used to examine concurrent validity, Allen's Paragraph Completion Instrument (Allen, 1983), which may have contributed to their conclusions regarding the SID. Further, the researchers suggested that the failure of Erwin's three higher scales to correlate with the Allen data might have occurred because Erwin's norming sample was composed solely of college freshmen, and college freshmen are usually more dualistic than relativistic or committed. They proposed that further research was needed to assess the validity of both the Allen and Erwin instruments.

Although Stonewater, Stonewater and Hadley indicated that possible validity constraints exist regarding Erwin's three higher subscales, the validity of the dualism subscale is well established. The likelihood, based on the fact that all participants were students at conservative Protestant colleges, that many participants

would produce significant dualism scores enhanced the utility of the SID for the study. Since there is a lack of other valid, objective instruments for measuring intellectual development, the SID was the most appropriate measure available.

The Defining Issues Test

The Defining Issues Test (DIT) (Rest, Cooper, Coder, Masanz & Anderson, 1974) assesses levels of moral judgement. The DIT, an objective test based on Kohlberg's theory of moral reasoning development, provides a valid and reliable measure for assessment of moral development. Although the DIT measures moral development on a continuum rather than in discrete qualitative stages, Kohlberg (1981) reported that the DIT "is useful for exploratory investigations of the correlates of moral maturity" (p. 194).

The DIT, composed of a short and long form, consists of three (short form) or six (long form) moral dilemmas followed by twelve statements for each dilemma. The subject rates each statement according to its salience. In addition to providing stage scores, the instrument provides a "P" score that indicates the level of principled moral reasoning, representing Kohlberg's Stages 5 and 6. All subjects, regardless of reasoning level, obtain a P score.

The DIT has been positively correlated with Kohlberg's measure of moral reasoning. The correlation ranges from $r=.39$ to $.70$, depending upon homogeneity of the sample, thus providing evidence for the construct validity of the scores on the DIT. Face validity was established by having scholars review the instrument and attest that it appeared to measure moral judgment. Using the 1974 sample, Rest established criterion validity and reported that the DIT successfully discriminated between groups of subjects who should, logically, differ in moral reasoning development. In comparing mean P scores of groups of ninth-graders ($P=20.0$), high school students ($P=31.03$), college students ($P=43.19$), graduate students ($P=44.85$), and moral philosophers ($P=65.1$), Rest found that level of principled reasoning did increase, as expected, by educational level. Thus, results indicated that the DIT clearly distinguishes between levels of principled moral reasoning.

Reliability for DIT scores has been established by Davison and Robbins (1978) and Rest (1974, 1986, 1990). Davison and Robbins (1978) reported high reliability coefficients of $r=.70$ to $.80$ using test-retest studies. Using his 1974 sample, Rest (1990) reported Cronbach's alpha on the P scores ranged from $.71$ to $.79$.

The short form of the DIT, consisting of three moral dilemmas instead of the six dilemmas given on the long

form, has been shown by Rest (1990) to be an acceptable substitute for the original DIT (long form). Using 160 subjects, Rest (1990) reported that the P score on the short form correlated highly ($r=.93$) with the full (long form) instrument's P score. Using a larger sample of 1080 subjects, Rest replicated the study and again a high correlation ($r=.91$) was obtained, thus establishing the short form as a substitute for the longer DIT instrument.

Given the established validity and reliability of the DIT and the high positive correlation between the short and long forms of the DIT, the short form of the DIT was used in this study to measure moral reasoning.

Rest (1990) indicated that dilemmas may be deleted from the DIT, if the dilemmas seem inappropriate for a particular group. Accordingly, for this study, dilemmas 3, 4 and 5 were used. Dilemma 1, the dilemma of "Heinz and the Drug," is a dilemma in which a man must choose between breaking the law and stealing a drug to save his dying wife, or obeying the law and allowing his wife to die. Since this dilemma has been discussed in various texts and classes, and would likely be familiar to many participants, it was not used in this study.

Dilemma 2 involves a student takeover of a college building during wartime. Since this dilemma might offer difficulty for some of the participants who have recently experienced the patriotism of the recent Gulf war and

might not understand anti-war sentiment, Dilemma 2 was omitted. Since Dilemma 6 makes reference to Vietnam, a conflict that ended before many of these students were born, this dilemma was omitted. It should be noted that this reference to Vietnam is present in the hand-scored version used in this study, whereas in a scantron version unavailable for this study Rest has deleted this reference.

With regard to dilemmas that were used in this study, Dilemma 3 involves an escaped prisoner who has become an upright citizen, Dilemma 4 addresses euthanasia, and Dilemma 5 focuses on racial prejudice against Asian-Americans. Since these issues are culturally and temporally appropriate, these three dilemmas also seemed to be the most appropriate for administration to the participants in this study.

Copeland Fundamentalism Scale

Unable to find an acceptable scale for measuring Protestant fundamentalism, the researcher developed a scale, the Copeland Fundamentalism Scale (CFS), for assessing levels of Protestant fundamentalism.

Items. Fifty original items for the CFS were generated from four sources; existing instruments, review of research, expert raters and the researcher's personal experience. Several existing instruments were referenced

and items adapted from these including the Rokeach Dogmatism Scale, Short Form (Troidahl & Powell, 1965), the Callison Religiosity Scale (Callison, 1987) and the Self-righteousness Scale (Falbo & Belk, 1985). Several items regarding fundamentalists' concepts of gender roles (Jelen & Wilcox, 1991), mental illness (McClatchie & Draguns, 1986) and other facets of the fundamentalist lifestyle were obtained from the literature review. Items were also suggested by colleagues and item expert-raters. Other items were products of the author's personal experience. The original fifty items reflected five basic aspects of fundamentalism; locus-of-control, fundamentalist lifestyle or separatism, attitude toward religious authority, innerrancy or literality of the Bible, and right-wrong, dualistic religious thinking.

In establishing content validity, the original fifty items were administered to four expert-raters for review. The raters were chosen because of their practical and theoretical knowledge of fundamentalism and the effect of fundamentalism on Protestant Christianity. Further, three of the four raters have doctoral degrees in religious education or philosophy of religion, hold or have held faculty positions in their disciplines, and have experience as pastors of Baptist churches. The fourth rater is Director of Student Ministries at a Baptist university and has a Master of Divinity degree. Each

rater was asked to rate each item as "essential," "appropriate" or "unnecessary". Any item that was ranked as unnecessary by any rater was discarded. Six items were rejected through this process, thus resulting in a revised total of 44 items.

The 44 item instrument was scored with a seven-point Likert scale ranging from a high score of 7 on "disagree strongly" to a low score of 1 on "agree strongly." Twelve items reflecting liberal rather than fundamentalist attitudes were coded in reverse for scoring purposes.

Initial administration and analysis. The CFS was administered to 40 students in an undergraduate Biblical survey course at Wayland Baptist University. This class was chosen because it represented a core requirement and therefore would not reflect or focus on a student's particular major. The sample contained 18 males and 14 females. No other demographic controls were attempted.

Initial reliability analysis included a point-biserial correlation of each item with the total test score. The initial scale with 44 items yielded 20 items with a correlation of .36 or greater (indicating correlation between individual item and total test score), thus establishing the significance level at $p < .01$. In addition, a Spearman-Brown adjusted split-half internal

consistency coefficient of $r=.73$ was obtained for the 44 item instrument.

An identical analysis was performed using only the twenty items with the highest correlation. Except for four items, correlation coefficients increased ($r=.35$ to $.68$) and were significant at the $p<.005$ level. A Spearman-Brown coefficient of $r=.85$ was obtained for the 20 item group. A third analysis was performed deleting items with $r<.40$ and using only the sixteen most highly correlated items with correlation coefficients increasing, overall ($r=.48$ to $.66$), at a significance level of at least $p<.002$, except for item 40 ($r=.32$) which was significant only at the $p<.039$ level. The Spearman-Brown coefficient for the sixteen item group was $r=.81$. Due to the overall increase in point-biserial correlation coefficients, the 16 item scale rather than the 20 item scale was chosen for the study. Of the sixteen remaining items, six represented locus of control, four represented fundamentalist lifestyle or separatism, two represented attitude toward religious authority, three represented innerrancy or literality of the Bible and one represented right-wrong religious thinking. This representation was based on face validity only, and does not represent factor or item analysis results.

Second administration. To establish construct validity regarding the revised sixteen item CFS scale, the

revised scale was administered to 150 freshmen students in a required extended orientation class at Wayland Baptist University. Students completed the CFS and a demographic sheet. Using information from the demographic sheet, students were divided into several groups for analysis. Only scores of students whose age ranged between 18 and 23 and who classified themselves as Protestants were used in the study. Based on these criteria, 23 students were eliminated from the study, thus leaving a sample size of 127.

One item on the demographic sheet asked students to answer the question "Would you classify yourself as a born-again Christian?" Responses were divided into two groups depending on whether the student gave an affirmative or negative response to the question. Five participants were eliminated due to failure to respond to this item, resulting in a sample size of 122. Difference in means among groups was analyzed using a t-test. The mean for the self-identified born-again Christian students was 57.66, while the mean for the group responding "no" to the question was 48.55. Results, $t(121) = -2.948$, $p < .005$, were significant, thus indicating that the instrument discriminated between the two groups. The expected outcome that students identifying themselves as born-again Christians would report more fundamentalist attitudes than

students who do not identify themselves as born-again Christians was supported by the results.

Since the review of research (Edginton & Hutchinson, 1990; Feather, 1979; Hurd, 1988) suggested that an inverse relationship exists between fundamentalist thinking and education, it was expected that students having been exposed to college-educated parents may be less fundamental in their thinking than students whose parents do not have a college degree. The 97 students who identified themselves as born-again Christians were divided into two groups based on their parents' educational level. Students were placed into group 1 if neither parent had a college degree and in group 2 if either parent held a college degree. A t-test was conducted and statistically significant results were obtained, $t(95) = -3.71, p < .0005$. The mean score for group 1 was 62.55, while the mean score for group 2 was 52.70. These results indicate that the instrument again distinguished clearly between fundamentalists and non-fundamentalists. A two-way ANOVA to determine interaction of education influence and "born-again-ness" was not performed due to lack of a sufficient number of subjects per cell. A t-test was performed comparing means of students who reported a parent with a college degree and were not born-again (NBA-C) with students who responded that they were born-again and did not have a parent with a

college degree (BA-NC). Mean for the NBA-C group was 44.8 while mean score of the BA-NC group was 60.3. The t-test revealed a significant difference, $t(28) = 4.27$, $p < .005$, suggesting that the interaction of parents' education and born-again-ness may be a significant predictor of level of fundamentalism.

To establish criterion-group validity, an analysis was conducted using expertly identified students. A faculty member in the communication arts division at Wayland Baptist University was asked by the researcher to administer the revised instrument to those he believed to be the 20 most liberal thinking Christian students in his classes. Concurrently, a request was made of a faculty member in the division of religion to administer the instrument to those students he believed to be the 20 most fundamental-thinkers in his classes. Students chosen to participate were all well-known by the faculty members, and their liberal or fundamental beliefs had been communicated clearly in the classroom and through personal communication with the faculty member. In addition to the classification via faculty member, students were asked on the instrument to classify themselves as liberal, moderate, conservative or fundamentalist Christians. Within the group designated as liberal by the faculty member ($n=13$), 10 participants classified themselves as moderate or liberal Christians. Within the group

classified as fundamentalist (n=20), 11 classified themselves as conservative or fundamentalist with nine classifying themselves as moderate. Mean score of the liberal group was 30.84, while mean for the fundamentalist group was 70.25. A t-test revealed that the difference in the two mean scores was significant, $t(31)=-8.87$, $p<.0005$, indicating that the instrument differentiated between fundamentalist and liberal religious thinkers. Thus initial and subsequent analysis of the Copeland Fundamentalism Scale established reliability and validity acceptable for this study.

Procedure

After classes to be used in this study were identified at participating institutions, faculty teaching these classes were instructed by the researcher both verbally and through written instructions on how to administer the instruments. Specifically, test administrators distributed to participants a packet of materials containing the instruction/demographic sheet, the CFS, the SID and the short form of the DIT. Participation was completely voluntary, and any students declining to participate in the study were excused from the class. Participants were told that identification of individual participants would not be made, and all responses would remain anonymous. Participants were also

encouraged to follow the testing procedures as stated on each instrument. Further, they were encouraged to work quickly and not linger over any one item.

All packets were collected at the end of the class period. Administration time for the packet was 35-60 minutes. All protocols for students whose age did not lie between 17 and 23 years were eliminated from the study. In addition, participants who did not identify themselves as Christian and Protestant were eliminated from this study as were any incomplete protocols.

Research Design and Statistical Analysis

The design employed in this study was a causal-comparative design with multiple independent and dependent variables, stemming from demographic information and multiple-scaled instruments. Null hypotheses tested at the .05 significance level were:

Hypothesis 1: There will be no significant difference in level of intellectual development and level of moral development among groups of participants scoring in the high range, middle range and low range on a measure of Protestant fundamentalism.

Hypothesis 2: There will be no significant differences among demographic groups with regard to score on a measure of Protestant fundamentalism.

For Hypothesis 1, groups were assigned based on scores on the CFS. For Hypothesis 2, groups were assigned based on the following demographic variables: age (18 year-olds, others), gender, denomination (Baptists, others), geographic background (urban, rural), college year (freshmen, all others), parents' education (college degree, no degree), parents' income (<20,000, >60,000) and grade point average (<3.0, >3.0). It should be noted that the sub-grouping based on parental income was reflective of participants who reported income below \$20,000 or above \$60,000. This distinction was made based on the assessment that participants reporting in these ranges would be more likely to reflect actual parental income range than participants reporting more moderate incomes.

To test hypothesis 1, participants were assigned to low, middle or high CFS groups for analysis based on CFS scores. An initial assignment was made by using one standard deviation above and below the mean as cut-off points for the groups. This division resulted in low and high CFS groups with only 40-50 members. In an effort to obtain at least 60 members for each group, cut-off scores were moved toward the mean, until groups of 64 (low), 109 (middle) and 69 (high) were obtained. This division resulted in cut-off scores of 49 for the low CFS group and 66 for the high CFS group. These group assignments were utilized in the data analysis.

Univariate analyses of variance (ANOVA) were performed to assess the significance of variance among high, middle and low CFS groups on SID-IV scores and DIT scores. In addition, follow-up Student's t-tests were performed on each combination of CFS groups with regard to all scores on SID-IV subscales and the DIT-P score. A correlation matrix was produced to assess linear relationships among the variables, and a multiple regression analysis was performed to assess the multiple correlation coefficient for the SID-IV subscales and the DIT-P scale on CFS scores.

Hypothesis 2 was tested using Student's t-tests for each demographic variable to assess significant differences among group means.

CHAPTER IV

RESULTS

This chapter contains the results of the statistical analysis of data collected in the study. Additionally, this chapter contains reports of sample demographic characteristics, descriptive statistics, MANOVA and ANOVA results, t-test results, correlations, and statements of acceptance or rejection of the null hypotheses.

Sample Characteristics

This study was directed at assessing fundamentalism and developmental variables in Protestant Christian students, with care being taken to include students representing several denominations. Of the 242 students participating in the study, 125 (51.2 %) were Baptist, 51 (21%) were members of the Church of Christ, 30 (12.3%) were Methodist, 23 (9.5%) were Non-denominational and 13 (5.2%) represented other Protestant denominations. Additionally, 197 (81.4%) identified themselves as "born again".

The sample included 15 Hispanics (6%), 13 African-Americans (5%), 1 Asian-American (.4%), 1 Native American (.4%) and 212 Anglos (87.6%). There were 151 women (62.3%) and 91 (37.6%) men. A report of sample characteristics is provided in Table 4.

Table 4

Sample Characteristics

Institutions	Participants	
	N	%
Wayland Baptist University	83	34.2
Howard Payne University	58	23.9
Lubbock Christian University	55	22.7
McMurray University	46	19.0
	242	
Denominations		
Baptist	125	51.2
Church of Christ	51	21.0
Methodist	30	12.3
Non-denominational	23	9.5
Christian (Disciples of Christ)	5	2.0
Mormon	3	1.2
Pentecostal	3	1.2
Episcopal	2	0.8
	242	
Ethnic Group		
Anglo	212	87.6
Hispanic	15	6.0
African-American	13	5.0
Native American	1	0.4
Asian	1	0.4
	242	
Gender		
Female	151	62.3
Male	91	37.6
	242	

Descriptive Statistics

Since this study represented the largest sample to be assessed using the Copeland Fundamentalism Scale (CFS), normative data on the CFS was not available; however, the CFS mean of 58.46 obtained in this study was comparable to the means obtained in earlier uses of the CFS. Scores on the three subscales of the Scale of Intellectual Development-IV (SID-IV) were converted to standard scores ($M = 50$, $SD = 10$) using formulas provided by Erwin (1992). Means obtained in this study for the SID-IV subscales were: Dualism, 52.80; Relativism, 44.21; and Commitment, 68.09. The Defining Issues Test-Principled Reasoning Score (DIT-P) mean for the sample was 29.95. A report of the descriptive statistics for the sample is provided in Table 5. Descriptive statistics for each CFS group are provided in Tables 6, 7 and 8.

Inferential Statistics

Hypotheses Testing

The first research hypothesis was tested using univariate ANOVAs, t-tests, and correlational statistics. Hypothesis 2 was tested utilizing t-tests for variance of between-group means. Results of all hypotheses tests are described below.

Table 5

Descriptive Statistics-All Participants N=242

Variable	M	SD	Range
CFS score	58.46	12.81	28-93
Dualism score	52.80	9.72	26-79
Relativism score	44.21	9.72	22-69
Commitment score	68.09	12.95	32-97
DIT-P score	29.95	13.54	1-67 *

* One participant produced a score of "0" on the P scale.
This was changed to a "1" for analysis.

Table 6

Descriptive Statistics-Low CFS Group n=64

Variable	M	SD
Dualism score	47.7	8.3
Relativism score	45.7	9.7
Commitment score	70.9	13.6
DIT-P score	35.4	14.5

Table 7

Descriptive Statistics-Mid CFS Group n=109

Variable	M	SD
Dualism score	53.4	8.9
Relativism score	43.6	9.2
Commitment score	69.1	12.0
DIT-P score	29.6	13.17

Table 8

Descriptive Statistics-High CFS Group n=69

Variable	M	SD
Dualism score	56.4	9.5
Relativism score	43.6	9.4
Commitment score	63.8	12.8
DIT-P score	25.2	11.1

Hypothesis 1

The first hypothesis examined the possible variance among subgroups of the sample with regard to intellectual and moral development. The hypothesis stated:

There will be no significant difference in level of intellectual development and level of moral development among groups of participants scoring in the high range, middle range and low range on a measure of Protestant fundamentalism.

ANOVA Results

Univariate analyses of variance were performed on each of the dependent variables with resulting significant F values as follows: $F(2,239) = 16.43, p < .001$ for the main effect of Dualism, $F(2,239) = 6.22, p < .01$ for the main effect of Commitment and $F(2,239) = 11.36, p < .001$ for the main effect of DIT-P score. The obtained F value for the main effect of relativism was not significant ($F(2,239) = 1.03$). A report of ANOVA results is presented in Table 9.

Table 9
Analyses of Variance of CFS Groups

Variable	DF	SS	F
Dualism	241	22771.768	16.43**
Relativism	241	22796.252	1.03
Commitment	241	40463.508	6.22*
DIT-P	241	44236.000	11.36**

** $p < .001$

* $p < .01$

As follow-up to the ANOVAs, t-tests were performed on each combination of low, middle and high CFS groups by Dualism score, Commitment score and DIT-P score. Significant results were obtained for each possible combination of the CFS groups by the dependent variables with the exception of low and middle CFS groups by Commitment. Results of these analyses are reported in Table 10.

The ANOVA and t-test results indicated a significant variance among the three CFS groups with regard to the dependent variables of Dualism score, Commitment score and DIT-P score. Participants in the high CFS group, as a whole, scored higher on the Dualism subscale, lower on the Commitment subscale and lower on the DIT-P scale than participants in the mid and low CFS groups. No

significant variance was indicated for the dependent variable of the Relativism score.

Table 10
Student's t-tests on CFS Groups

Group 1	Group 2	Variable	t
LowCFS	MidCFS	Dualism	-4.18 ***
MidCFS	HiCFS	Dualism	-2.07 *
LowCFS	HiCFS	Dualism	-5.55 ***
LowCFS	MidCFS	Commitment	.092
MidCFS	HiCFS	Commitment	2.76 **
LowCFS	HiCFS	Commitment	3.10 **
LowCFS	MidCFS	DIT-P	2.79 **
MidCFS	HiCFS	DIT-P	2.28 *
LowCFS	HiCFS	DIT-P	4.67 ***

*** p<.001

** p<.01

* p<.05

Correlational Results

To examine the possible linear relationships among the variables, a multiple regression analysis was performed on the CFS score by Dualism, Relativism, Commitment and DIT-P scores. This analysis yielded a multiple correlation coefficient of $R=.50$, $p<.001$ indicating that the combination of Dualism score,

Relativism score, Commitment score and DIT-P score was a significant predictor for CFS score, accounting for 50% of the variance. Results of the multiple regression are provided in Table 11.

Table 11
Multiple Regression Analysis

Variable	beta	Std. error of est.
Dualism	.52	.087
Relativism	-.37	.084
Commitment	-.16	.064
DIT-P	-.12	.056

Coefficient of determination = .25
Coefficient of multiple correlation = .50

Individual correlation coefficients indicated significant linear relationships between the CFS score and Dualism score ($r=.40$, $p<.001$), Dualism score and Relativism score ($r=.37$, $p<.001$), Dualism score and Commitment score ($r=-.40$, $p<.001$), Dualism score and DIT-P score ($r=-.34$, $p<.001$) and Relativism score and Commitment score ($r=-.42$, $p<.001$). In addition, significant correlational relationships were indicated between CFS score and DIT-P score ($r=-.27$, $p<.01$) and CFS score and

Commitment score ($r = -.23$, $p < .05$). A complete correlation matrix is provided in Table 12.

Table 12

Correlation Matrix

Pearson Correlation Coefficients				
	Dualism	Relativism	Commitment	DIT-P
CFS	.40***	-.05	-.23*	-.27**
Dualism		.37***	-.40***	-.34***
Relativism			-.42***	-.08
Commitment				.19

*** $p < .001$
 ** $p < .01$
 * $p < .05$

The relationships indicated by the correlational analysis support those indicated in the ANOVAs and t-tests of between-groups variances. There is a positive relationship between CFS score and Dualism score and negative relationships between CFS score and Commitment and DIT-P scores. These results support the indication of significant differences in low, middle and high CFS groups with regard to scores on Dualism, Commitment and DIT-P found in the variance analyses. Therefore Hypothesis 1 was rejected.

Hypothesis 2

Hypothesis 2 examined the relationship between demographic characteristics levels of Protestant fundamentalism in Christian college students. The hypothesis stated:

There will be no significant differences among demographic groups with regard to score on a measure of Protestant fundamentalism.

To test this hypothesis, a t-test was performed on each demographic variable except for the variables of "ethnic group" and "high school size." The extraordinary homogeneity of the sample and the significant amount of non-standard reporting of high school size precluded a valid analysis of these variables. A report of all demographic t-test results is provided in Table 13.

Table 13

Student's t-tests on Demographic Groups

Variable	t
CLASS - freshmen vs. upperclassmen	5.89 ***
AGE - 18 yr. olds vs. all others	3.90 ***
INCOME - <20K vs. >60K	2.54 *
PARENTS' COLLEGE DEGREE - yes vs. no	.28
URBAN vs. RURAL BACKGROUND	.69
DENOMINATION - Baptists vs. all others	1.55
GENDER	.57
GPA - <3.0 vs. >3.0	1.57
BORN AGAIN - yes vs. no	.91

*** p<.001
 ** p<.01
 * p<.05

Of the nine demographic variables analyzed by t-tests, only three yielded significant results with regard to CFS scores. The most significant was the variable indicating college class. Results indicated a significant difference between freshmen and all upperclassmen ($t(241)=5.89, p<.001$).

In addition to the college class variable, results indicated there is a significant difference between 18-year-olds and all others ($t(241)=3.90, p<.001$). The third demographic variable that yielded any significant result

was parents' income. Reported incomes of below \$20,000 and above \$60,000 were analyzed with $t(81) = 2.54$, $p < .02$. This significance should be interpreted with caution since it is based on self-reported student estimates of parental income and may not accurately reflect actual parental income levels. No other variables yielded significant t-test results.

The significant results obtained with regard to education level, age, and parental income required a rejection of Hypothesis 2.

Summary

The statistical analysis of the data collected in this study supports rejection of both null hypotheses and indicates three major findings:

1. There was a significant variance among low, middle, and high CFS groups with regard to Dualism score, Commitment score and DIT-P score.
2. There was a significant positive linear relationship between CFS score and Dualism score.
3. The demographic variable most related to fundamentalism was educational level. Age may be significantly related as well, and parental income may be mildly related.

CHAPTER V
DISCUSSION

Summary of the Investigation

The purpose of this study was to investigate the relationship of fundamentalist religious ideology and developmental characteristics among college students. Protestant fundamentalism has had a significant impact on American society for many years, and the increase of such ideology in the past two decades has had a significant impact on American higher educational institutions, faculty, and students.

Protestant fundamentalism has been characterized as an intrusive, intolerant movement that negates intellectual investigation and ambiguity and promotes a dualistic, right vs. wrong moral framework (Ammerman, 1991; Cox, 1987; Marsden, 1980; Peshkin, 1986). Given the impact of this ideology on society and the conflict it represents to the academic community, a clear understanding of the nature and effect of Protestant fundamentalism is needed.

This study was conducted for several reasons. First, although there has been some research on the relationship of fundamentalism to developmental variables (Evans, 1988; Feather, 1979; Nevard, 1988; Shaver, 1985), the literature review revealed a lack of research addressing

fundamentalism as a scientifically defined and measured construct. Second, research linking fundamentalism and developmental factors, although generally indicating an inverse relationship, was not conclusive. Finally, the literature review revealed that no valid or reliable instrument to specifically assess Protestant fundamentalism had been developed prior to this study. In light of the findings of the literature review, this study sought to answer two questions: (1) What is the nature of the relationship, if any exists, among fundamentalist and non-fundamentalist Protestant college students with regard to intellectual and moral development? (2) What demographic factors may serve as determinants of Protestant fundamentalism in college students?

The participants for the study consisted of 242 Protestant college students in attendance at regional Protestant-affiliated colleges. In addition, all of the students identified themselves as Christian, and 197 identified themselves as "born again." All participants were within 17-23 years of age.

All participants completed an instrument protocol consisting of a demographic/instruction sheet, the Scale of Intellectual Development-IV (Erwin, 1981) to assess levels of intellectual development, the Defining Issues Test (Rest, Cooper, Coder, Masanz & Anderson, 1974) to

assess moral reasoning development, and the Copeland Fundamentalism Scale to assess Protestant fundamentalism.

The design used in the study was a causal-comparative design with one between-subject group variable (fundamentalism level) and four dependent variables (Dualism, Relativism, Commitment, and DIT-Principled Reasoning Level).

To test the first hypothesis, participants were assigned to groups (high, middle or low) based on scores on the Copeland Fundamentalism Scale. Statistical analysis of between-groups variance was accomplished by univariate ANOVAs with t-tests as follow-up analyses. ANOVAs and t-tests indicated significant variances between high, middle, and low fundamentalism groups. In addition, correlational statistics indicated a significant linear relationship between fundamentalism level and score on the Dualism scale.

Testing of the second hypothesis indicated that educational level and age were significant indicators of fundamentalist ideology. No other demographic factors were found to be significant in indicating fundamentalism level. Both null research hypotheses were rejected.

Discussion of the Findings

This section will provide a discussion of the significant findings and conclusions of the research

study. In addition, the chapter will include discussions of limitations of the study and implications for further research.

Hypothesis 1

The first hypothesis stated:

There will be no significant difference in level of intellectual development and level of moral development among groups of participants scoring in the high range, middle range and low range on a measure of Protestant fundamentalism.

As reported in the previous chapter, a significant between-groups variance was indicated for the dependent variables of the Dualism score, Commitment score, and DIT-P score. The supporting t-test results indicated a significant variance among groups with regard to Dualism and DIT-P scores, and a significant variance with regard to Commitment score. In addition, correlational statistical measures indicated a significant linear relationship between fundamentalism score and Dualism score. These results indicate that differences in levels of intellectual and moral development do exist among groups of Christian college students classified as high, middle, and low level fundamentalists.

Hypothesis 2

The second hypothesis stated:

There will be no significant difference among demographic groups with regard to score on a measure of Protestant fundamentalism.

T-tests to assess variance between demographic groups resulted in significant differences in fundamentalism scores among demographic groups based on educational level, age, and parental income.

Significantly higher fundamentalism scores were obtained for college freshmen than for upperclassmen, and for 18 year-olds than for 19-23 year-olds. Although based on self-reported data, a variance with regard to parental income was indicated, whereby those with higher parental income exhibited lower fundamentalism scores. These results indicate that educational level and age are significantly related to Protestant fundamentalism among college students.

The data revealed a significant relationship between level of Protestant fundamentalism and levels of intellectual and moral development among college students. Specifically, in this study, a high level of fundamentalism indicated a high level of dualistic thinking and low level of commitment as described by Perry (1968) and a low level of moral reasoning as described by Kohlberg (1969, 1981). Conversely, a lower level of

fundamentalist thinking indicated a lower level of dualism, a higher level of commitment, and a higher level of principled moral reasoning.

Integration with Prior Research

Fundamentalism and Developmental Variables

The finding of a significant relationship between fundamentalism and developmental variables directly supports the research of Edgington and Hutchinson (1990) who found an inverse relationship between conservative Christianity and complex thinking patterns and Feather's (1979) report that conservative Christians are less likely to be open-minded than others. Results of this study also support the writings of Boone (1989), Duffy (1987), and Evans and Berndt (1988) who concluded that fundamentalists have low tolerance for ambiguity or intellectual uncertainty.

The indication of an inverse relationship between fundamentalism and intellectual development lends credence to the findings of Nevard (1988), Evans (1988), Shaver (1985), and Powers (1985) with one strong caveat; each of the prior studies made no scientific distinction between fundamentalist Christians and non-fundamentalists. Nevard's sample and Powers' sample both contained students identified as conservatives solely based on affiliation with an evangelical campus organization or enrollment at a

Christian institution. Evans and Shaver also identified participants based solely on demographic factors. As evidenced by the significant variances between fundamentalists and non-fundamentalists in this study, important distinctions in levels of intellectual development exist among conservative, evangelical college students and should be addressed in research involving these groups.

With regard to the relationship between fundamentalism and moral development, the results of this study also support the findings of Ernsberger and Manaster (1981), Clouse (1985) and Brown and Annis (1978) who found an inverse relationship between conservative Christianity and moral development. Although Ernsberger and Manaster utilized only denominational membership to determine conservatism, Clouse and Brown and Annis did make distinctions based on conservative characteristics.

The results of this study also indicate possible support for the proposals of Philibert (1982) and Hill (1985) who concluded that fundamentalism may be inversely related to faith development. Although no clear relationship between faith development, moral development, and intellectual development has been established, the three constructs are similar in many respects. The implication of this similarity for future research is addressed later in this chapter.

Demographic Factors Related to Fundamentalism

Results of this study indicated educational level and age as significant demographic factors in predicting level of fundamentalism in college students. In light of the relationship between fundamentalism and intellectual development, these results indirectly support the findings of Wright (1989), Khalili and Hood (1983), Welfel (1982) and Welfel and Davison (1986) who indicated that significant growth on the Perry scheme occurs during the college experience, and specifically significant growth occurs during the first year of college. These findings also support the research of Acebo (1988) and Pascarella (1985) who suggested that age is secondary to educational experience in impacting intellectual development of college students. In addition, these results indicate indirect support for the work of Deemer (1989) and Rest (1984) who reported a positive relationship between educational level and moral reasoning development.

No other demographic variables reflected significant variances. Two of these, "parents' education" and "born again-ness" had been significant indicators of Protestant fundamentalism in the validation studies on the Copeland Fundamentalism Scale. The increased sample size and increased diversity of denominations in this study may account for the lack of significance regarding "born again-ness" as this term may be specific to particular

denominations and may not truly reflect fundamentalist thinking. The inclusion of a large number of upperclass students in this sample may account for the non-significance of the influence of parental education. The CFS validation study utilized a sample that consisted primarily of freshmen students.

Descriptive Characteristics

As reported in Table 5, the sample mean for the Commitment scale on the SID-IV was curiously high at 68.09, while the sample mean for the DIT-P scale was somewhat low at 29.95. This result may reflect a lack of validity for the Commitment scale, as reported by Stonewater, Stonewater and Hadley (1986) who suggested that the Relativism and Commitment scales of the SID-IV did not accurately reflect the Perry scheme of development.

This result may also reflect a characteristic particular to Protestant Christian students who are dualistic and fundamental, but have rationally chosen to be committed to those ideals. This "articulate authoritarian" (Kwilecki, 1988a, p. 231) personality type would seem, however, to be more likely exhibited in adults, as in the Kwilecki study, than in adolescents or college students.

The mean obtained for the sample on the DIT-P scale supports the idea that the SID-IV Commitment scale may have questionable validity. Using normative data accumulated over several years, Rest (1990) reported a mean score of 42.3 on the DIT-P scale for college students. As reported earlier, the mean DIT-P score for this sample was 29.95, a score much lower than the norm group. In addition, the mean for the low-fundamentalism group, which exhibited the highest group mean on the DIT-P, was only 35.4. A high level of commitment as indicated by the group mean for the Commitment scale is likely associated with a level of moral reasoning that approached the norm for college students. In contrast, the obtained mean P score for this sample was well below the norm.

It should be noted that, as reported in the literature review, Richards (1991) proposed that the DIT is biased against conservative Christians inasmuch as statements reflecting reliance on spiritual authority are relegated to Stage 4 and thus not included in calculation of the "principled reasoning," or P score. Richards' proposal was not supported by the research of Dirks (1988) who found that such statements alone were not sufficient to result in a lower stage score. This study supports Dirks' findings as there is only minimal reference to spiritual authority in the three moral dilemmas included in this study. In fact, only 2 of 36 statements in the

three dilemmas make reference to God, Christianity, or spiritual authority.

Contributions of the Study

Since there was a paucity of existing research, this study provided needed information regarding the relationship between Protestant fundamentalism and intellectual and moral development among college students. Specifically, the study has shown a clear and significant inverse relationship between fundamentalism and intellectual and moral development among Protestant Christian college students. The study also clearly supported prior research regarding the effects of fundamentalism on developmental processes and the effects of the demographic variables of education and age on levels of fundamentalism.

Further, the study provided a definition of Protestant fundamentalism, based on a thorough review of research and expert opinion rather than popular notions or media portrayals. This is a significant deviation from prior efforts to distinguish fundamentalists based solely on denominational membership, religiosity, dogmatism or non-scientifically constructed instruments. In addition to providing a definition of fundamentalism, this study offered further validation for a new inventory, the

Copeland Fundamentalism Scale, to measure Protestant fundamentalism.

Implications of the Study

The findings of this study have implications for developmental theory, research on student development, and practice in the field. This section will describe implications of the study in the three areas.

Researchers (Carroll & Rest, 1981; Kitchener, 1978; King, 1978; White & Hood, 1978) have generally supported the developmental theories of Perry and Kohlberg; the findings of this study also lend general support to their theories. In addition, although the findings from this study indicate an inverse relationship between Protestant fundamentalism and developmental variables, there is also an indication that traditional theories of student development may not completely accommodate the particular developmental characteristics of Protestant fundamentalist college students.

The high mean Commitment score and low mean DIT-P score obtained from the study not only suggests questionable validity for the SID-IV Commitment subscale, but it may also indicate a type of commitment particular to evangelical Christian students. Students who have made a serious commitment to a religious ideal, value system or belief system while retaining dualistic or fundamentalist

thought patterns may represent an "articulate authoritarian" personality type that lies outside the scope of Perry's scheme. These students may have worked through the developmental process and consciously decided to retain dualistic, fundamentalist beliefs.

Conversely, the results may indicate students who have "jumped" from dualism to a type of commitment without experiencing the multiplism and relativism described by Perry as essential to development of true commitment. These students might more accurately be described as dogmatic rather than committed. Perry's scheme describes a commitment that is chosen in spite of cognitive conflicts and inconsistencies. High levels of fundamentalism and dualism would preclude this type of choice. Given the impact of Protestant fundamentalism on higher education, the need to incorporate an understanding of the phenomenon into student developmental theory is substantial.

These findings also have implications for research regarding intellectual and moral development. Not only has this study provided support for the impact of fundamentalism on developmental variables, but the study has also indicated that significant differences in development exist among subgroups within the population of conservative, evangelical Christians. These differences warrant consideration in future research. In addition,

this study indicated that a valid, reliable measurement of Protestant fundamentalism is needed to determine levels of fundamentalist thinking within the population of conservative, Protestant Christians. The results from this study indicate that the CFS correlated positively with the Dualism subscale, and negatively with the DIT-P scale thus lending some credence to the CFS as a measure of Protestant fundamentalism, and also the need for a measure of Protestant fundamentalism.

Results of this study may have implications for use of the SID-IV to assess levels of commitment among conservative Christian students. The finding of a high group mean for Commitment score and low mean for DIT-P score may indicate that fundamentalist Christian students exhibit strong commitment, but that this commitment is directed toward lower levels of moral reasoning.

Prior research (Stonewater, Stonewater & Hadley, 1986) indicated that the Relativism and Commitment subscales of the SID-IV did not accurately reflect the Perry scheme of development. This criticism may be well-founded, particularly with regard to fundamentalist Christians. The items on the Commitment subscale reflect the generally accepted construct of commitment, but some items do not seem to reflect the development of that commitment, which is the thrust of Perry's theory. For example, item 78 states "I have made a major commitment in

at least one area of my life." It is highly unlikely that a student who is a fundamentalist Christian would respond to this statement with any but the strongest affirmative. This type of affirmative response would not, in this case, reflect commitment as defined by Perry and could possibly reflect a dogmatic dualism. Likewise item 60 states "I do not feel ready to firmly support my beliefs." A negative response to this statement is taken by Erwin to be an indication of commitment; however, most fundamentalist Christians would offer a negative response to this statement indicating their fervent, aggressive desire to support and promote their beliefs.

The results of this study also have practical implications. Educators in higher education, and in particular those associated with Protestant institutions, should consider the impact of fundamentalist thinking on the levels of moral and intellectual development of their students, and develop strategies to help students accommodate and assimilate new information. Educators should also develop specific strategies to deal with fundamentalist students by encouraging growth on the Perry scheme and development of principled moral reasoning.

Limitations of the Study

As with any research study, this study had several limitations. These occurred in two basic areas; participants and instrumentation.

Participants for the study were limited to Protestant students who identified themselves as Christians. In addition, participants were limited to the traditional college age range. The study was geographically and culturally limited in that participants were chosen from four Protestant church-affiliated institutions in the western half of Texas. Results should be interpreted in light of these limitations and generalizations to the population of Protestant college students should be made with some caution.

The study was also limited by instrumentation. Although the Defining Issues Test has well-established validity and reliability, the validity of the SID-IV Relativism and Commitment subscales is questionable. The results of this study did confirm earlier research supporting the validity of the Dualism subscale, but did not offer clear support for the validity of the Relativism and Commitment subscales. In addition, although acceptable validity studies were provided for the CFS, this new inventory is in need of further validity and reliability studies to confirm its worth as a measure of Protestant fundamentalism.

Finally, results should be interpreted in light of the limitations imposed by the use of the theories of Kohlberg and Perry as a basis for the study. As with any theoretical schema, Kohlberg's and Perry's ideas are open to critique and revision and represent only theoretical perceptions. Acceptance or rejection of these theories, and the perceived value of growth on these schemes, is relative.

Recommendations for Further Research

One of the significant contributions of the study was the genesis of questions and concerns that should be addressed by future researchers. Results from the analysis of the data, several areas in need of further research became evident.

1. One of the limitations of this study was the use of only students at church-related institutions as participants. The study should be replicated utilizing Protestant Christian students from public institutions as well. This inclusion would provide an indication of possible differences in levels of fundamentalism, as well as levels of intellectual and moral development, between Christian students at church-related and public institutions.

2. Although several Protestant denominations were included in the sample, a broader representation should be

included in further studies. Although there are liberal factions among all of the major denominations represented, such factions are likely not well represented in the geographic region where this study was conducted. An effort to include significant numbers of Lutheran, Episcopalian and Presbyterian participants might yield significant denominational differences not evident in this study, especially since these denominations are generally considered to be more liberal than those represented in the study.

3. Further research should include a more ethnically diverse sample. Although prior research has not indicated significant ethnic differences with regard to intellectual or moral development, a broader ethnic sample would reduce or confirm any speculation of ethnic bias in the instrumentation or procedures.

4. Although the CFS was developed to assess Protestant fundamentalism, the inventory should be adapted and procedures replicated to include assessment of Catholic students. Since Catholicism, as well as Protestantism, may produce significant numbers of fundamentalist thinkers and since many higher education institutions are affiliated with the Catholic church, such information would be a significant contribution to the field.

5. Future studies should ascertain the validity of the use of the SID-IV subscales, and perhaps the relevance of Perry's definition of commitment for fundamentalist Christians. If the SID-IV accurately represents Perry's scheme with regard to commitment, it is likely that the scheme is not fully applicable to fundamentalist Christians and an adaptation of the scheme would be appropriate. If the scale and scheme are accurate, a close examination is warranted of the construct of commitment as it applies to fundamentalist Christians.

6. The study has provided a preliminary measure of Protestant fundamentalism in the CFS. Further validity and reliability information are necessary prior to consideration of the CFS as an established instrument. Data should also be collected to establish general and demographic-specific norms for the instrument.

In summary, this study has provided significant and relevant information regarding the developmental processes of college students, and further research to support, question or expand the scope of the study is both needed and suggested by the findings.

Educators attempting to combine the acquisition of knowledge with the commitment to religious ideologies have historically struggled to serve both equally well. The impact of Protestant fundamentalism on Protestant higher education institutions has made this struggle even more

difficult and unsettling. This study has offered some understanding of the nature of fundamentalism as it relates to college student development. It is the hope and intent of the researcher that this understanding will generate more accurate and effective teaching, counseling, and programming in Christian higher education institutions.

REFERENCES

- Acebo, S. (1988). A descriptive study of the intellectual and ethical development of community college learners. Dissertation Abstracts International, 49, 1317.
- Alishio, K. and Schilling, K. (1983, May). Sex differences in intellectual and ego development. Paper presented at the annual meeting of the Midwestern Psychological Association, Chicago.
- Allen, R. (1983). Research on changes in intellectual development and critical thinking ability. (Grant No. SED 80-26487). Washington, D.C.: National Science Foundation.
- Ammerman, N. (1987). Bible believers: Fundamentalists in the modern world. New Brunswick, NJ: Rutgers Press.
- Arcady, P. (1988). Intellectual and ethical development in freshmen undergraduates as a function of two curricular programs. Dissertation Abstracts International, 49, 3596.
- Astin, A. (1991). The American freshman: National norms for fall 1991. Los Angeles: Cooperative Institutional Research Program.
- Batson, C. & Ventis, W. (1982). The religious experience. New York: Oxford University Press.
- Baxter-Magolda, M. (1987). Comparing open-ended interview and standardized measures of intellectual development. Journal of College Student Personnel, 28, 443-448.
- Baxter-Magolda, M. (1989). Gender differences in cognitive development; an analysis of cognitive complexity and learning styles. Journal of College Student Development, 30, 213-219.
- Boone, K. (1989). The Bible tells them so: The discourse of protestant fundamentalism. Albany, NY: SUNY Press.
- Brown, D. & Annis, L. (1978). Moral development level and religious behavior. Psychological Reports, 43, 1230.
- Burnham, C. (1982, March). Teaching with a purpose : The Perry scheme and the teaching of writing. Paper presented at the Annual Meeting of the Conference on College Composition and Communication, San Francisco.

- Burton, R., Johnson, S. & Tamney, J. (1989). Education and fundamentalism. Review of Religious Research, 30, 645-663.
- Callison, S. (1987). The relationship between counselor use of religious terminology and rating of counselor credibility by high and low religious raters. Unpublished doctoral dissertation, Texas Tech University.
- Carroll, J. & Rest, J. (1981). Development of moral judgement as indicated by rejection of lower stage statements. Journal of Research in Personality, 15, 538-544.
- Carter, J. & Narramore, B. (1979). The integration of psychology and theology. Grand Rapids, MI: Zondervan.
- Chi, K. & Houseknecht, S. (1985). Protestant fundamentalism and marital success: A comparative approach. Sociology and Social Research, 69, 351-373.
- Clouse, B. (1985). Moral reasoning and Christian faith. Journal of Psychology and Theology, 13, 190-198.
- Cox, H. (1987). Fundamentalism as an ideology. In R. Neuhaus and M. Cromartie, Eds., Piety and politics: Evangelicals and fundamentalists confront the world (pp.287-301). Washington, D.C.: Ethics and Public Policy Center.
- Curtis, S. (1988). Cognitive development and anger expression of adult women. Dissertation Abstracts International, 49, 3623.
- Darden, R. (1987). Intellectual development in college freshmen. Dissertation Abstracts International, 49, 1423.
- Davison, M. & Robbins, S. (1978). The reliability and validity of objective indices of moral development. Applied Psychological Measurement, 2, 391-403.
- Deemer, D. (1989). Moral judgement and life experience. Moral Education Forum, 14, 11-21.
- Denton, R. (1990). The religiously fundamental family: Training for assessment and treatment. Journal of Social Work Education, 26, 6-14.

- Deopere, D. (1987). The relationship of cognitive development to age, education and intelligence. Dissertation Abstracts International, 48, 3128.
- Dirks, D. (1988). Moral development in Christian higher education. Journal of Psychology and Theology, 16, 324-331.
- Dollar, G. (1973). A history of fundamentalism in America. Greenville, S.C.: Bob Jones University Press.
- Duffy, S. & Duffy, B. (1985). Communication pathologies of religious totalism. Religion and Humanism, 19, 181-185.
- Duffy, B. (1987). Fundamentalism, relativism and commitment. Communication Education, 36, 403-409.
- Edgington, T. & Hutchinson, R. (1990). Fundamentalism as a predictor of cognitive complexity. Journal of Psychology and Christianity, 9, 47-55.
- Eighmy, J. (1972). Churches in cultural captivity: A history of the social attitudes of southern Baptists. Knoxville, TN: University of Tennessee Press.
- Ernsberger, D. & Manaster, G. (1981). Moral development, denominational teachings. Genetic Psychology Monographs, 104, 23-41.
- Erwin, T. (1983). The Scale of Intellectual Development: Measuring Perry's scheme. Journal of College Student Personnel, 24, 6-12.
- Erwin, T. (1992). Manual for the scale of intellectual development. Harrisonburg, VA: Developmental Analytics.
- Evans, D. (1988). The effects of a religious oriented, homogeneous college population on reflective judgement. Dissertation Abstracts International, 49, 3306.
- Evans, N. (1987). A framework for assisting student affairs staff in fostering moral development. Journal of Counseling and Development, 66, 191-196.
- Evans, R. & Berent, I. (1988). Fundamentalism: Hazards and heartbreaks. LaSalle, IL.: Open Court Press.
- Falbo, T. & Belk, S. (1985). A short scale to measure self-righteousness. Journal of Personality Assessment, 49, 72-77.

- Feather, N. (1979). Value correlates of conservatism. Journal of Personality and Social Psychology, 37, 1616-1630.
- Fowler, J. (1981). Stages of faith: The psychology of human development and the quest for meaning. San Francisco: Harper & Row.
- Fowler, J. (1991). Stages in faith consciousness. New Directions for Child Development, 52, 27-46.
- Frieden-Graham, G. (1988). Making meaning of a liberal arts experience: A longitudinal investigation of student change in intellectual and ethical development. Dissertation Abstracts International, 50, 1132.
- Furnham, A. (1982). Locus of control and theological beliefs. Journal of Psychology and Theology, 10, 130-136.
- Genia, V. (1992). Transitional faith: A developmental step of toward religious maturity. Counseling and Values, 37, 15-21.
- George, T. (1990). Partly fearing, partly hoping: Evangelicals, Southern Baptists, and the quest for a new consensus. Perspectives in Religious Studies, 17, 167-172.
- Gilligan, C. (1977). In a different voice: Women's conception self and morality. Harvard Educational Review, 47, 481-517.
- Gilligan, C. (1980). Moral development. In U. Delworth and G. Hanson (Eds.), Student Services, A Handbook for the Professions, (pp.139-156). San Francisco: Jossey-Bass.
- Gordon, V. (1981). The undecided student: A developmental perspective. Personnel and Guidance Journal, 433-438.
- Gorsuch, R. & Smith, C. (1983). Attribution of responsibility to God: An interaction of religious beliefs and outcomes. Journal for the Scientific Study of Religion, 22, 340-352.
- Gross, F. (1981). A sequential sextet (portraits of faith stages in one family). Journal of General Education, 33, 154-169.
- Haan, N. (1985). Processes of moral development: Cognitive or social disequilibrium? Developmental Psychology, 21, 6, 996-1006.

- Haase, R. & Ellis, M. (1987). Multivariate analysis of variance. Journal of Counseling Psychology, 34, 121-130.
- Hadley, T. & Graham, J. (1987). The influence of cognitive development on perceptions of environmental press. Journal of College Student Personnel, 28, 388-398.
- Hanson, R. (1991). The development of moral reasoning: Some observations about Christian fundamentalism. Journal of Psychology and Theology, 19, 249-256.
- Hartz, G. & Everett, H. (1989). Fundamentalist religion and its effect on mental health. Journal of Religion and Health, 28, 207-217.
- Heath, D. (1968). Growing up in college: Liberal education and maturity. San Francisco: Jossey-Bass.
- Heise, R. & Steintz, J. (1991). Religious perfectionism versus spiritual growth. Counseling and Values, 36, 11-18.
- Hertzke, A. (1988). Representing God in Washington: The role of religious lobbies in American polity. Knoxville: University of Tennessee Press.
- Hill, C. (1986). A developmental perspective on adolescent rebellion in the church. Journal of Psychology and Theology, 14, 306-317.
- Hill, S. (1986). Fundamentalism and the south. Perspectives in Religious Studies, 13, 47-65.
- Holstein, C. (1976). Irreversible stepwise sequence in development of moral judgement: A longitudinal study of males and females. Child Development, 47, 51-61.
- Hood, R. Morris, R. & Watson, P. (1986). Maintenance of religious fundamentalism. Psychological Reports, 59, 547-559.
- Hurd, R. (1988). Liberty university: Fortress in the war for a Christian America. Dissertation Abstracts International, 50, 635.
- Jelen, T. (1986). Fundamentalism, feminism and attitude toward pornography. Review of Religious Research, 28, 97-103.

- Kellestedt, L. & Smidt, C. (1991). Measuring fundamentalism: An analysis of different operational strategies. Journal for the Scientific Study of Religion, 30, 259-278.
- Kemmerer, A. (1987). A study of ego, intellectual and identity development in underachieving and high-achieving college freshmen. Dissertation Abstracts International, 48, 1710.
- Khalili, H. & Hood, A. (1983). A longitudinal study of change in conceptual level in college. Journal of College Student Personnel, 24, 389-394.
- King, P. (1978). The development of reflective judgement and formal thinking in adolescents and young adults. Dissertation Abstracts International, 38, 7233A.
- Kitchener, K. (1978). Intellectual development in late adolescents and young adults: reflective judgement and verbal reasoning. Dissertation Abstracts International, 39, 956B.
- Kitchener, K., King, P., Davison, M., Parker, C. & Wood, P. (1984). A longitudinal study of moral and ego development in young adults. Journal of Youth and Adolescence, 13, 197-210.
- Knefelkamp, L. (1984). Measure of Intellectual Development (MID). College Park: University of Maryland Center for Application of Developmental Instruction.
- Kohlberg, L. (1969). Stage and sequence: The cognitive developmental approach to socialization. In D. Goslin (Ed.), Handbook of socialization theory and research. Chicago: Rand-McNally.
- Kohlberg, L. (1981). Essays on moral development, volume one: The philosophy of moral development. San Francisco: Harper and Row.
- Kwilecki, S. (1988). A scientific approach to religious development: Proposals and a case illustration. Journal for the Scientific Study of Religion, 27, 307-325.
- Kwilecki, S. (1988). Personal religious belief development: The "articulate authoritarian" type. Religion, 18, 231-253.

- Lawrence, B. (1989). Defenders of God: Fundamentalists revolt against the modern age. San Francisco: Harper and Row.
- Lechner, F. (1989). Fundamentalism revisited. Society, 25, 51-59.
- Leonard, B. (1990). God's last and only hope: The fragmentation of the Southern Baptist Convention. Grand Rapids, MI: Eerdmans.
- Lonky, E., Kaus, C. & Roodin, P. (1984). Life experience and mode of coping: Relation to moral judgement in adulthood. Developmental Psychology, 20, 1159-1167.
- Lupfer, M., Hopkinson, P. & Kelley, P. (1988). An exploration of attribution styles of Christian fundamentalists and authoritarians. Journal for the Scientific Study of Religion, 27, 389-398.
- McLoughlin, W. (1982). The illusions and dangers of the new Christian right. Foundations, 25, 128-143.
- Mangan, K. (1990, December 5). More Baptist colleges hope to loosen ties to church leaders. Chronicle of Higher Education, A15-A19.
- Marsden, G. (1990). Defining American fundamentalism. In N. Cohen (Ed.), The fundamentalist phenomenon, (pp.31-43). Grand Rapids, MI: Eerdmans.
- Marty, M. (1987). Religion and republic: The American circumstance. Boston: Beacon.
- McClatchie, L. & Draguns, J. (1986). Mental health concepts of evangelical protestants. The Journal of Psychology, 118, 147-159.
- McFarland, S. & Warren, J. (1992). Religious orientation and selective exposure among fundamentalists. Journal for Scientific Study of Religion, 31, 163-174.
- McIntosh, D. (1985, April). Forms of personal faith and general and specific locus-of-control. Paper presented at the annual meeting of the Rocky Mountain Psychological Association, Tuscon, AZ.
- McKenzie, D. (1986). Teaching students who already know the "truth." Thought and Action, 2, 109-122.

- Mellon, C. & Sass, E. (1981). Perry and Piaget: Theoretical framework for effective college course development. Educational Technology, 21, 29-33.
- Moore, W. (1989). The learning environments preferences: Exploring the construct validity of an objective measure of the Perry scheme of intellectual development. Journal of College Student Development, 30, 504-511.
- Moran, J. & Joniak, A. (1979). Effect of language on preference for response to a moral dilemma. Developmental Psychology, 15, 337-338.
- Neely, A. (1990). Baptists and peoples of other faiths. Perspectives in Religious Studies, 17, 25-32.
- Neuhaus, R. (1987). What the fundamentalists want. In R. Neuhaus and M. Cromartie (Eds), Piety and politics: Evangelicals and fundamentalists confront the world. Washington, D.C.: Ethics and Public Policy Center.
- Neuhaus, R. (1990). Fundamentalism and the American polity. In N. Cohen (Ed.), The fundamentalist phenomenon. Grand Rapids, MI: Eerdmans.
- Nevard, B. (1988). Religious thinking patterns and selected social adjustment factors for college students. Dissertation Abstracts International, 49, 2946.
- Niggle, T. (1989). A study of the relationship between cognitive developmental level and meeting selected preservice goals in teacher education. Dissertation Abstracts International, 50, 3864.
- Ostow, M. (1990). The fundamentalist phenomenon: A psychological perspective. In N. Cohen (Ed.), The fundamentalist phenomenon. Grand Rapids, MI: Eerdmans.
- Ozorak, E. (1986, August). The development of religious beliefs and commitment in adolescence. Paper presented at 7th annual meeting of the American Psychological Association, Washington, D.C.
- Parker, J. (1984). The preliminary investigation of the validity and reliability of the Parker Cognitive Development Inventory. Dissertation Abstracts International, 45, 2849.

- Pascarella, E. (1989). The development of critical thinking: Does college make a difference? Journal of College Student Development, 30, 19-26.
- Perry, W. (1968). Forms of intellectual and ethical development in the college years, a scheme. San Francisco: Jossey-Bass.
- Perry, W. (1980). Cognitive growth: The making of meaning. In U. Delworth and G. Hanson (Eds.), Student Services: A handbook for the profession. San Francisco: Josey-Bass.
- Peshkin, A. (1986). God's choice: The world of the fundamentalist Christian school. Chicago: University of Chicago Press.
- Philibert, P. (1982). Moral maturity and education beyond conventional morality. Review of Religious Research, 23, 286-296.
- Polkosnik, M. & Winston, R. (1989). Relationships between students intellectual and psychosocial development: An exploratory investigation. Journal of College Student Development, 30, 10-19.
- Powers, R. (1985). Religious thinking patterns and self-concept of students involved in protestant campus organizations. Dissertation Abstracts International, 46, 2252.
- Powell, J., Gladson, J. & Meyer, R. (1991). Psychotherapy with the fundamentalist client. Journal of Psychology and Theology, 19, 344-353.
- Rest, J. (1979). Development in judging moral issues. Minneapolis: University of Minnesota Press.
- Rest, J. (1984). Research on moral development: Implications for training counseling psychologists. The Counseling Psychologist, 12, 19-28.
- Rest, J. (1986). Moral development in young adults. In K. Kitchener and R. Mines (Eds.), Social cognitive development in young adults (pp. 92-111). New York: Praeger.
- Rest, J. (1990). Manual for the defining issues test, third edition, 8/90 revision. Minneapolis: Center for the Study of Ethical Development.

- Rest, J., Cooper, D., Coder, R., Masanz, J. & Anderson, D. (1974). Judging the important issues in moral dilemmas: An objective measure of development. Developmental Psychology, 10, 491-501.
- Richards, S. (1991). The relation between conservative religious ideology and principled moral reasoning: A review. Review of Religious Research, 52, 359-368.
- Richardson, A. & Bowden, J. (1983). The Westminster dictionary of Christian theology. Philadelphia: Westminster Press.
- Roberts, M. (1977). Construction and validation of the scales of ethical and intellectual development. Unpublished manuscript.
- Rodgers, R. (1980). Theories underlying student development. In D. Creamer (Ed.), Student development in higher education. New York, NY: American College Personnel Association Media Publications.
- Rosenberg, E. (1989). The Southern Baptists: A subculture in transition. Knoxville: University of Tennessee Press.
- Rotter, J. (1966). Generalized expectancies for internal vs. external control of reinforcement. Psychological Monographs, 609.
- Rowen, S. (1983). Testing validity: Moral development and religious faith. In D. Joy (Ed.), Moral development foundations: Judeo-Christian alternatives to Piaget/Kohlberg. Nashville: Abingdon.
- Sanders, C. (1990). Moral reasoning of male freshmen. Journal of College Student Development, 31, 5-8.
- Saperstein, D. (1990). Fundamentalism involvement in the political scene: Analysis and response. In N. Cohen (Ed.), The fundamentalist phenomenon, (pp.116-134). Grand Rapids, MI: Eerdmans.
- Schmidt, J. (1985). Older and wiser: A longitudinal study of the impact of college on intellectual development. Journal of College Student Personnel, 26, 388-396.
- Shaver, D. (1985). A longitudinal study of moral development at a conservative, religious liberal arts college. Journal of College Student Personnel, 26, 400-404.

- Shelley, J. (1990). The gift of ambiguity. Perspectives in Religious Studies, 17, 5-11.
- Smidt, C. (1988). Evangelicals within contemporary American politics: Differentiating between fundamentalists and other evangelicals. Western Political Quarterly, 41, 601-620.
- Spinney, D. (1991). How do fundamental Christians deal with depression? Counseling and Values, 35, 114-122.
- Sprinthall, N. & McVay, J. (1987). Value development during the college years: A cause for concern and an opportunity for growth. Counseling and Values, 31, 126-136.
- Stonewater, B., Stonewater, J. & Hadley, T. (1986). Intellectual development using the Perry scheme: An exploratory comparison of two assessment instruments. Journal of College Student Personnel, 27, 542-547.
- Tamney, J. & Johnson, S. (1988). Fundamentalism and self-actualization. Review of Religious Research, 30, 276-285.
- Taylor, M. (1983). The development of the measure of epistemological reflection, Dissertation Abstracts International, 44, 1065A.
- Thomas, R., Murrell, P. & Chickering, A. (1982). Critical role of value development in student development. NASPA Journal, 19, 3-13.
- Torrey, R. E. (1917). The fundamentals: A testimony to the truth. Los Angeles: Bible Institute of Los Angeles.
- Troldahl, V. & Powell, F. (1965). A short form dogmatism scale for use in field studies. Social Forces, 44, 211-214.
- Walker, L., Devries, B. & Bichard, S. (1984). The hierarchical nature of stages of moral development. Developmental Psychology, 20, 960-966.
- Welfel, E. (1982). How students make judgements: Do educational level and academic major make a difference? Journal of College Student Personnel, 23, 490-496.

- Welfel, E. & Davision, M. (1986). The development of reflective judgement during the college years: A 4-year longitudinal study. Journal of College Student Personnel, 27, 209-215.
- Whipple, V. (1987). Counseling battered women from fundamentalist churches. Journal of Marital and Family Therapy, 13, 251-258.
- White, C. (1975). Moral development in Bahamanan school children: A cross-cultural examination of Kohlberg's stages of moral reasoning. Developmental Psychology, 11, 535-536.
- White, D. & Hood, A. (1989). An assessment of the validity of Chickering's theory of student development. Journal of College Student Development, 30, 354-360.
- Wilcox, C. (1989). Evangelicals and the moral majority. Journal for the Scientific Study of Religion, 28, 400-414.
- Winston, R., Miller, T. & Prince, J. (1979). Assessing student development: A preliminary manual for the student development task inventory, 2nd edition and the student development profile and planning record. Athens, GA.: Student Development Associates.
- Woodrum, E. (1988). Moral conservatism and the 1984 presidential election. Journal for the Scientific Study of Religion, 27, 192-210.
- Wright, S. (1989). Selected correlates of intellectual development of college freshmen. Dissertation Abstracts International, 50, 3498.
- Wroebel, T. & Stogner, B. (1988, August). Beliefs and religious behaviors in fundamentalist christian and college students. Paper presented at the annual meeting of the American Psychological Association.
- Yeazell, M. & Johnson, S. (1988). Levels of moral judgement of faculty and students in a teacher education program: A micro study of an institution. Moral Development, 61-70.
- Zern, D. (1989). Some connections between increasing religiousness and academic accomplishments in a college population. Adolescence, 24, 141-154.

APPENDIX A
INSTRUMENTS

General Instruction Sheet

The three attached instruments are designed to measure characteristics that may be related to your personal beliefs and values and the way you make choices and solve problems. Results from this study will be used to assess differences between college students. Your participation is completely voluntary and responses will be kept anonymous and confidential. No attempt will be made to identify or contact participants. Results will be reported and/or published using group data. By completing the four instruments you are giving your agreement to participate in this study.

Thank you for agreeing to complete these brief instruments. Your participation should take approximately 45 minutes. Work carefully, but do not take too much time analyzing any one particular item. Your responses, as a whole, are much more valuable than any individual item. Before completing the attached forms, please fill out the following information as completely as possible. Remember, all responses are kept completely anonymous and confidential.

Age___ M/F___ Current GPA___ Religious denomination___

Ethnic group___ Urban or rural background___

Size of high school___ college year classification___

Name of college___ Parent's annual income___

Father's education___ Mother's education___

Are you a Christian?___

Do you identify yourself as being "born again"?___

Among Christians, would you rate yourself as; liberal___, moderate___, conservative___ or fundamental___?

Please read and follow all instructions carefully.
Please leave all pages stapled together.

Please turn the page and complete the attached forms.
Thank you again for your assistance.

CFS

The following statements reflect religious beliefs or feelings. In the blank beside each statement, please put the number that corresponds with your level of agreement or disagreement with that statement. Please respond to each statement as honestly as you can.

- 1 = Disagree strongly
- 2 = Disagree somewhat
- 3 = Mildly disagree
- 4 = Neutral
- 5 = Mildly agree
- 6 = Agree somewhat
- 7 = Agree strongly

- ___ 1. To question the authority of your pastor is wrong.
- ___ 2. There are always definite right or wrong answers to religious questions.
- ___ 3. The church should take a strong stand against "liberal" politics.
- ___ 4. People who disagree with a spiritual authority figure are probably not in line with God's will for their lives.
- ___ 5. Christian people should always vote for Christian political candidates.
- ___ 6. Many of the miracles in the Bible did not happen exactly as they are written.
- ___ 7. If I am a true Christian, God will make many of my choices for me.
- ___ 8. Most mental illnesses would be cured if people would get right with God.
- ___ 9. There are no errors of any kind in the Bible.
- ___ 10. Happiness or unhappiness depends mostly upon personal choices, not what God causes to happen to you.
- ___ 11. The more you expose yourself to non-Christian ideas, the more likely you are to weaken your faith.
- ___ 12. It's always better to have a Christian teacher than a non-Christian teacher.
- ___ 13. People would be better off if they depended upon God, rather than medicine for their physical health.
- ___ 14. God will deliver people from their problems if their faith is strong enough.
- ___ 15. To be a strong Christian, you don't have to believe every word of the Bible is true.
- ___ 16. Some illnesses are God's judgment on individuals for their sins.

SD-IV (Copyright 1981, T. Dery Erwin)

This questionnaire lists a series of statements about various topics. Read each statement and decide whether you agree or disagree with each statement as follows:

A - Strongly agree B - Slightly agree C - Slightly disagree D - Strongly disagree

Mark the letter beside each statement of the alternative that best describes your opinion. There are no right or wrong answers, so do not spend too much time deciding on a correct answer. Sometimes people try to make themselves out to be better than they really are, therefore, the questionnaire includes some items to check on this. The first thing that comes to mind is probably the best response. There is no time limit, but work as quickly as possible.

- A B C D 1. There are some areas of my life where nothing is either wrong or right but rather a matter of personal preference.
 A B C D 2. I always put forth my best effort.
 A B C D 3. I am always truthful and trustworthy.
 A B C D 4. What happens in my life is usually up to me.
 A B C D 5. When all members of a group disagree, it usually means that everybody is right.
 A B C D 6. I have often considered how my career will contribute to society.
 A B C D 7. The responsibility for my life is my own.
 A B C D 8. The safest decision is no decision at all.
 A B C D 9. I never disagree with other people.
 A B C D 10. I always think through problems thoroughly.
 A B C D 11. One thing is certain, if there is absolute truth, people will never know it and must choose and act in uncertainty.
 A B C D 12. I have had to set priorities on my activities so that I could reach a goal.
 A B C D 13. I would not think of marrying a person whose religious beliefs were different than my own.
 A B C D 14. I prefer that teachers simply tell me what is important to know.
 A B C D 15. In most situations requiring a decision, it is best to listen to someone who knows what they are doing.
 A B C D 16. I am the person that I am because of the choices I have made.
 A B C D 17. Personal values should be adapted to fit the situation.
 A B C D 18. Uncertainty may be the only thing of which a person may be sure about.
 A B C D 19. I schedule activities in my life according to the long range goals I have set.
 A B C D 20. No moral principle applies in all situations.
 A B C D 21. I often wonder if my career dominates too much of my life.
 A B C D 22. I often consider the potential effects of my behavior on the good of society.
 A B C D 23. I would never date a person of whom my parents would disapprove.
 A B C D 24. I worry that I may become too set in my ways.
 A B C D 25. I never mislead people.
 A B C D 26. My beliefs about current issues are often influenced more by the opinions of others than by my own ideas.
 A B C D 27. A professor's job is to communicate the facts of his or her field to students.
 A B C D 28. Now that I am fully committed to a career, I plan and think about it often.
 A B C D 29. I considered several fields before choosing a major.
 A B C D 30. I base many of my moral decisions on what other people do.
 A B C D 31. When I make a major decision, I often sit back and consider what it is about the choices that appeal to me.
 A B C D 32. With the amount of knowledge now greater than ever before, one can't feel confident in choosing a singular view.
 A B C D 33. I have set priorities on what are the most important goals in my life.
 A B C D 34. The risk of disappointment outweighs commitment to a goal.
 A B C D 35. Once a person decides on an occupation, his or her personal behavior is mostly set.
 A B C D 36. There is nothing more annoying than a question that can have more than one answer.
 A B C D 37. The welfare of other people enters into every decision I make.
 A B C D 38. I frequently think about how I may someday go about rearing my children.
 A B C D 39. I find myself applying skills learned in one field to another area of study.
 A B C D 40. There must be correct answers for the majority of philosophical questions such as "What is truth?".
 A B C D 41. What other people say is more important than the principle involved.
 A B C D 42. It is better to simply believe in a religion than to be confused by doubts about it.
 A B C D 43. My life goals are no more specific this year than they were last year.
 A B C D 44. Politicians too often consider societal benefits in the decisions they make.
 A B C D 45. The difficulty of a homework assignment can be judged by the number of pages to be read.
 A B C D 46. I am beginning to plan now how I can balance other aspects of my life with my career.
 A B C D 47. I have spent a great deal of time thinking about the kind of spouse I would make.
 A B C D 48. I have been responsible for supervising the work of others.
 A B C D 49. I have found it usually better to avoid taking a firm point of view.
 A B C D 50. The true experts in a given field generally agree with each other.
 A B C D 51. The greatest leaders can show emotions and feelings.
 A B C D 52. A person should not question what the experts believe to be true.
 A B C D 53. Problems can only be understood through the eye of the individual; a common principle can rarely be determined.
 A B C D 54. The value of any behavior depends on the situation in which it occurs.
 A B C D 55. I have assumed the major responsibilities in most areas of my life.

- A B C D 56. I enjoy discussing and studying about social issues of our day.
 A B C D 57. I have formulated a personal code of ethics that is not exactly like that of anyone else.
 A B C D 58. Most history professors spend too much time speculating about theory rather than presenting the facts.
 A B C D 59. It is the job of counselors to guide students into the right occupations.
 A B C D 60. I do not feel ready to firmly support my beliefs.
 A B C D 61. I am free to believe whatever I want only when the experts do not agree.
 A B C D 62. Disagreements involving important issues should be left to the experts.
 A B C D 63. I would learn more in the humanities if the teachers would just stick to the facts.
 A B C D 64. Defending one's point of view is unwise; other people's opinions are just as important.
 A B C D 65. People should be made to follow the law exactly and without exception.
 A B C D 66. I have difficulty balancing the needs of other with the needs of myself.
 A B C D 67. Right and wrong never change.
 A B C D 68. The choices I make about my life are always based on my best interests.
 A B C D 69. I am extremely sensitive to the effect I have on others.
 A B C D 70. I have yet to decide what I will do after college.
 A B C D 71. My academic responsibility ends with getting my work done on time.
 A B C D 72. People should obey the police in all situations.
 A B C D 73. A person of good character usually does what he or she is told to do.
 A B C D 74. When I hear an opinion different from mine, I usually ask why the other person believes the way he or she does.
 A B C D 75. A strong person rarely discusses or displays how he or she feels about a situation.
 A B C D 76. To a large extent, who I am is determined by the career I have chosen.
 A B C D 77. Every person's opinion should be weighed with equal consideration.
 A B C D 78. I have made a major commitment in at least one area of my life.
 A B C D 79. I need not act on my beliefs, it is enough that I have them.
 A B C D 80. It is always better to heed the advice of a more experienced person.
 A B C D 81. When presented with a new problem, I seldom anticipate how other people may be affected.
 A B C D 82. I will be able to continually define my job through the ways in which I do my work.
 A B C D 83. If I was having personal problems, I would want a counselor to tell me what to do.
 A B C D 84. I often think "Whatever I do affects other people".
 A B C D 85. My inner life is very important to me.
 A B C D 86. Issues are so complex today, a person should adopt a single stance only on rare occasions.
 A B C D 87. I can't enjoy the company of people who don't share my moral values.
 A B C D 88. Educators should know by now what is the best teaching method, lecture or small discussion group.
 A B C D 89. The style with which I carry out my responsibilities is an important part of my identity.
 A B C D 90. I have sorted through all my beliefs and have decided which ones I will keep and which I will discard.
 A B C D 91. All the skills I have learned could be used in both constructive and destructive ways.
 A B C D 92. As I grow older, I should guard against becoming too sensitive about other people.
 A B C D 93. Good teachers never let you leave the classroom with doubts about the subject matter.
 A B C D 94. The best courses emphasize practical rather than theoretical matters.
 A B C D 95. Before I do something new, I usually consider the effect it will have on other people.
 A B C D 96. I have pondered the problem of divorce and have considered how I may be able to make my future marriage last.
 A B C D 97. I feel contempt for people who have a life philosophy different from my own.
 A B C D 98. I do not hesitate to change my opinion when another person presents appropriate evidence.
 A B C D 99. People are not as aware as they should be of their roles.
 A B C D 100. I have difficulty focusing on a single vocational choice.
 A B C D 101. My awareness of my inner resource has not grown during the past year.
 A B C D 102. I frequently have difficulty accepting the consequences of my decisions.
 A B C D 103. My interpretation of a passage sometimes differs from that of my teachers.
 A B C D 104. I often wonder if I am on the right track.
 A B C D 105. I continually question the reasons why I believe the way I do.
 A B C D 106. It is a waste of time to think about how things should be rather than how they are right now.
 A B C D 107. Money spent for welfare in this country should be spent for something else.
 A B C D 108. Circumstances of luck usually determine a person's future.
 A B C D 109. I let others make their own moral choices rather than telling them what to do.
 A B C D 110. I am responsible for all of my choices.
 A B C D 111. Almost anything can look right when viewed from some perspective.
 A B C D 112. I enjoy working with complex ideas.
 A B C D 113. I enjoy problems that do not have a pat answer.
 A B C D 114. No one can be sure about anything anymore.
 A B C D 115. In today's world, a person cannot be sure about choosing any of the options available.

March 11, 1993

Dr. T. Dary Erwin
Office of Student Assessment
James Madison University
Harrisonburg, Va. 22801

Dear Dr. Erwin,

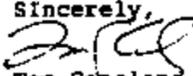
It was a pleasure to visit with you on the phone earlier this week. I appreciate your taking the time to discuss my research plans.

As per our conversation, I am writing this letter as a special request to utilize the SID-IV in a different format than provided by Developmental Analytics. This will be a one-time research project for my doctoral dissertation in educational psychology at Texas Tech University. My title is "An Investigation of the Relationship of Protestant Religious Fundamentalism to Intellectual and Moral Development among College Students". I will be using a self-developed scale of religious fundamentalism, Rest's Defining Issues Test and your SID-IV. The instruments will be administered to approximately 250 college students in colleges and universities in Texas. The general hypothesis is that students who exhibit high levels of fundamentalism will score lower on the SID-IV and DIT than students with lower fundamentalism scores.

In an effort to keep my instrument package manageable for participants, I would like to use the SID-IV in the format attached. I realize this will not provide for efficient scoring, but I think it will be a simpler process for administration.

I appreciate this consideration. I assure you I will protect the integrity of your instrument.

Thank you for your time.

Sincerely,

Tom Copeland
808 Vernon
Plainview, Texas 79072

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Kerry
3-21-93*

OPINIONS ABOUT SOCIAL PROBLEMS (Copyright 1972, James Rest. All rights reserved)

This questionnaire is aimed at understanding how people think about social problems. Different people often have different opinions about questions of right and wrong. There are no "right" answers in the way that there are right answers to math problems. We would like you to tell us what you think about three problem stories. The scores will be analyzed by a computer to find the average for the whole group and no one will see your individual answers.

Here is a story as an example.

Frank Jones has been thinking about buying a car. He is married, has two small children and earns an average income. The car he buys will be his family's only car. It will be used mostly to get to work and drive around town, but sometimes for vacation trips also. In trying to decide what car to buy, Frank realized that there were a lot of questions to consider. Below is a list of some of these questions.

If you were Frank, how important would each of these questions be in deciding what car to buy?

Instructions

On the left hand side check one of the spaces by each statement, indicating how important that question was in making the decision. For instance, if you think statement #1 is not important to the decision of what car to buy, check the space on the right labeled "None".

Importance					
Great	Much	Some	Little	None	
				✓	1. Whether the car dealer is on the same block where Frank lives. (Note that in this sample, the person taking the questionnaire did not think this was important in decision-making.)
✓					2. Would a used car be more economical in the long run than a new car? (Note that a check was put in the far left space to indicate that this was an important issue in making a decision about buying a car.)
		✓			3. Whether the color was green, Frank's favorite color.
				✓	4. Whether the cubic inch displacement was at least 200. (Note that if you are unsure what "cubic inch displacement" means, then mark it as "none".)
	✓				5. Would a large roomy car be better than a compact?
				✓	6. Whether the front connibilities were differential. (Note that if the statement sounds like gibberish or nonsense to you, mark it "none".)

Now, from the list of questions above, select the most important one of the whole group. Put the number of the most important question in the space below left. Do likewise for your 2nd, 3rd, and 4th most important choices. (Note that the top choices in this case come from the statements that were checked on the far left side - statements 2 and 5 were thought to be very important. In deciding what was the most important, a person would re-read 2 and 5, decide which was most important, then put the other as 2nd most important, and so on.

most important . 2nd most important 3rd most important 4th most important
2 5 3 1

Doctor's Dilemma

A lady was dying of cancer which could not be cured and she had only about six months to live. She was in terrible pain, but she was so weak that a good dose of pain-killer, like morphine, would make her die sooner. She was delirious and almost crazy with pain, and in her calm periods, she would ask the doctor to give her enough morphine to kill her. She said she couldn't stand the pain and that she was going to die in a few months anyway.

What should the doctor do? Check one answer.

Give her the overdose Can't decide Don't give the overdose

Importance					
Great	Much	Some	Little	None	
					1. Whether the woman's family is in favor of giving her the overdose or not.
					2. Is the doctor obligated by the same laws as everybody else if giving her an overdose would be the same as killing her?
					3. Whether people would be better off without society regimenting their lives and even their deaths.
					4. Whether the doctor could make it appear like an accident.
					5. Does the state have the right to force continued existence on those who don't want to live?
					6. What is the value of death prior to society's perspective on personal values?
					7. Whether the doctor has sympathy for a woman's suffering or cares more about what society might think.
					8. Is helping to end another's life ever a responsible act of cooperation?
					9. Whether only God should decide when a person's life should end.
					10. What values the doctor has set for himself in his own personal code of behavior.
					11. Can society afford to let everybody end their lives when they want to?
					12. Can society allow suicides or mercy killings and still protect the lives of individuals who want to live?

From the list of questions above, select the four most important.

most important 2nd most important 3rd most important 4th most important

Escaped Prisoner

A man had been sentenced to prison for 10 years. After one year, however, he escaped from prison, moved to a new area of the country, and took on the name of Thompson. For eight years he worked hard, and gradually he saved enough money to buy his own business. He was fair to his customers, gave his employees top wages, and gave most of his own profits to charity. Then one day, Mrs. Jones, an old neighbor, recognized him as the man who had escaped from prison 8 years before, and whom the police had been looking for.

Should Mrs. Jones report Mr. Thompson to the police and have him sent back to prison?
Check one answer.

Should report him Can't decide Should not report him

Importance					
Great	Much	Some	Little	None	
					1. Hasn't Mr. Thompson been good enough for such a long time to prove he isn't a bad person?
					2. Every time someone escapes punishment for a crime, doesn't that just encourage more crime?
					3. Wouldn't we be better off without prisons and the oppression of our legal system?
					4. Has Mr. Thompson really paid his debt to society?
					5. Would society be failing what Mr. Thompson should fairly expect?
					6. What benefit would prisons be apart from society, especially for a charitable man?
					7. How could anyone be so cruel and heartless as to send Thompson back to prison?
					8. Would it be fair to all prisoners who served out their full sentences if Thompson were let off?
					9. Was Mrs. Jones a good friend of Mr. Thompson?
					10. Wouldn't it be a citizen's duty to report an escaped criminal, regardless of the circumstances?
					11. How would the will of the people and the public good best be served?
					12. Would going to prison do any good for Mr. Thompson or protect anybody?

From the list above, select the four most important issues

most important 2nd most important 3rd most important 4th most important

Webster

Webster was the owner and manager of a gas station. He wanted to hire another mechanic to help him, but good mechanics were hard to find. The only person he found who seemed to be a good mechanic was Mr. Lee, but he was Chinese. While Mr. Webster himself didn't have anything against Asians, he was afraid to hire Mr. Lee because many of his customers didn't like Asians. His customers might take their business elsewhere if Mr. Lee was working at the gas station. When Mr. Lee asked Mr. Webster if he could have the job, Webster said that he had already hired someone. But Mr. Webster had really not hired anyone, because he could not find anybody who was a good mechanic besides Mr. Lee. What should Mr. Webster have done? Check one answer.

Hire Mr. Lee Can't decide Not hire him

Importance					
Great	Much	Some	Little	None	
					1. Does the owner of a business have the right to make his own business decisions or not?
					2. Whether there is a law that forbids racial discrimination in hiring for jobs.
					3. Whether Mr. Webster is prejudiced against Asians himself or whether he means nothing personal in refusing the job.
					4. Whether hiring a good mechanic or paying attention to the wishes of his customers would be best for his business.
					5. What individual differences ought to be relevant in deciding how society's roles are to be filled.
					6. Whether the greedy and competitive capitalistic system ought to be completely abandoned.
					7. Do a majority of people in Webster's society feel like his customers or are a majority against prejudice?
					8. Whether hiring capable men like Mr. Lee would use talents that would otherwise be lost to society.
					9. Would refusing the job to Mr. Lee be consistent with Webster's own moral beliefs?
					10. Could Mr. Webster be so hard-hearted as to refuse the job, knowing how much it meant to Mr. Lee?
					11. Whether the Christian commandment to love your fellow man applies in this case.
					12. If someone is in need, shouldn't he be helped regardless of what you get back from him?

From the list of questions above, select the four most important.

most important 2nd most important 3rd most important 4th most important

INVOICE

CENTER for the study of
ETHICAL DEVELOPMENT

University of Minnesota / Fed ID: #1-416007513G

SEND TO:

Tom Copeland
Wayland Baptist U
643
Plainview, TX 79072

Date: 03-03-1993
Account # 3829

Item Description	Number	Price
Sample DIT questionnaire & Info Package	1	free
Manual for the DIT, 1986	1	\$ 25.00
Printed DITs for optical scanning and Scoring	15	\$ 31.00
Total cost of items ordered		\$ 56.00
Balance Owed		\$ 56.00

* Make checks payable to: University of Minnesota *
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* SEND TO: Center for the study of Ethical Development *
* c/o James Rest / 206-A Burton Hall *
* 178 Pillsbury Drive SE / Minneapolis, MN 55455 *

(This is your copy for your records.)

Permission for use of DIT for dissertation study
received via telephone from Center for the study of
Ethical Development, March 3, 1993.

APPENDIX B
INSTRUCTIONS FOR ADMINISTRATION

Project Administration

Introduction and Instructions

Please read the following introduction before passing out packets. Feel free to use your own words. Allow students who feel that they cannot participate to leave the class or sit quietly while others complete the instruments. Participation is totally voluntary.

"Today we have the opportunity to participate in a research project designed to assess religious attitudes and college student development. The project is being conducted by Tom Copeland, a doctoral student in the educational psychology department at Texas Tech University. Results of the study will be used in a doctoral dissertation and will contribute useful information to the area of student development in higher education, and particularly Christian higher education. Your participation will consist of the completion of an information sheet and three brief instruments. The project should take no more than the time allotted for this class period. I encourage you to participate in the project and assist Mr. Copeland. The experience may be valuable to you in the future as you conduct research of your own. If you feel that you cannot participate in the project, you will be allowed to decline. You will not be penalized for refusing to participate, however the success of the project depends on a significant level of participation at each participating institution and your involvement will be greatly appreciated by Mr. Copeland and myself. Is there anyone who feels that he/she is not able to participate?"

At this point, allow any declining students to leave the room, or instruct them to remain in their seats quietly while others complete the instruments. Then pass out the packets to the remaining students.

After packets are passed out, please emphasize the following instructions:

- there are no right or wrong answers for any of the questions in the packets
- Do not spend too much time on one question. Your first impression is usually best.
- Work thoroughly but quickly.
- Please keep all pages stapled together.
- All responses are totally anonymous.

Please feel free to answer any questions, if you wish. Remember to leave at least 45 minutes for completion. Thanks again.