THE PRELIMINARY DEVELOPMENT OF A SENTENCE COMPLETION

INVENTORY TO ASSESS PSYCHOLOGICALLY

UNHEALTHY RELIGIOUS BELIEFS

THESIS

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To assess psychologically unhealthy Protestant beliefs
a Religious Sentence Completion Inventory (RSCI), and
Scoring Manual, were developed from a pilot study.

In the main study 103 undergraduate students were
subjects. Interscorer reliability for the RSCI was .83.

Results revealed significant positive correlations
between the RSCI, and maladjustment validity criteria:
a Minnesota Multiphasic Personality Inventory (MMPI) total
weighted score; and MMPI clinical scales 1, 2, 3, 4, 6, 7,
and 8; but not validity scale F; for females. Only MMPI
scale 6 correlated with the RSCI for males.

These data appear to partially support the proposition
that whether Protestant beliefs hinder or do not hinder
mental health depends upon the particular kind of beliefs a
Protestant holds.

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INTRODUCTION

Does religion hinder mental health? Some people

maintain that religious individuals are psychologically

unhealthy. Others claim that religion does not hinder

mental health. There is a third possibility: whether

religion hinders or does not hinder mental health may depend

upon the nature of an individual's belief system; i.e., the

particular kind of beliefs a person holds. Consideration

is given to each of these three possibilities in the

following sections.

Religion a Hindrance to Mental Health

Marx (1844) stated that religion "is the opium of the

people [p. 131]." He saw religion as an instrument of the

bourgeoisie used for oppression of the proletariat.

Freud (1927) regarded religion as man's attempt to

manufacture an illusion of a father image in order to

satisfy his wishes for protection from danger, anxiety, and

helplessness. For Freud religion signified infantile

regression.

Reinach (1930) expressed the opinion of many people

who see religion as an inhibition when he said that

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religion is "a sum of scruples which impede the free exercise of our faculties [p. 3]."

The claim that religion fosters humanitarian attitudes and behavior has been seriously questioned by those who point to the injustices, brutalities, and wars carried out in the name of religion. Religious inquisitions, witch-burnings, crusades, and abuses perpetrated by the divine right of kings seem to contradict blatantly the principles of brotherhood and mercy. Nietzsche (1888) wrote:

> I call Christianity the one great curse, the one enormous and innermost perversion, the one great instinct of revenge, for which no means are too venomous, too underhand, too underground and too petty,--I call it the one immortal blemish of mankind [Aphorism 62].

Hitler, whose bigotry led to the death of six million Jews during World War II, invoked the name of deity to justify his anti-Semitism: "I believe that I am acting in accordance with the will of the Almighty Creator: by defending myself against the Jew, I am fighting for the work of the Lord [Cited by Glock & Stark, 1966, p. xv]." Kirkpatrick (1949) found a significant negative correlation between a measure of religiosity and a measure of humanitarianism.

In a 1946 study Allport and Kramer reported that in college students "who claim that religion was a marked or moderate factor in their training, we find considerably more cases in the higher prejudice group than in the lower [pp. 25-26]." In addition, Allport and Kramer found that

students with no religious affiliation were less likely to
be anti-Negro than those who labeled themselves as Catholics
or Protestants.

The extensive series of studies by Adorno, Frenkel-
Brunswick, Levinson and Sanford (1950) reported under the
title The Authoritarian Personality found significant rela-
tionships between certain types of religionists and author-
itarianism, ethnocentrism, prejudice, and anti-Semitism.
Jones (1958) found that Naval Aviation cadets who scored
high on authoritarianism were more likely to have a relig-
ious background. Stouffer (1955) found religious people to
be less tolerant even after controlling for education.

In a study reported by Rokeach (1960) it was found
that

> on all four variables--opinionation, dogmatism, F
> [authoritarianism-fascism] and ethnocentrism--the
> means for the Catholics are significantly or very
> significantly higher than those obtained by Protes-
> tants and nonbelievers [p. 111].

Also, nonbelievers were found to be significantly less eth-
nocentric than Protestants (Rokeach, 1960). Other studies
using the Dogmatism scales developed by Rokeach have also
found significant relationships between religiosity and
dogmatism (Carmichael, 1963; DiGiuseppe, 1971; Stanley,
1963; Steininger, Durso, & Pasquarriello, 1972).

Furthermore, religiosity has been correlated with
numerous other personality traits. The majority of the

correlated traits noted in this section are typically considered maladaptive. For male and female college students religiosity as measured by three separate methods: the Religion scale of the Allport-Vernon-Lindzey Study of Values (1960), self-ratings, and frequency of church attendance, were each positively correlated with acquiescence (Fisher, 1964).

Tennison and Snyder (1968) used as their measure of religiosity an average of the scores from the Attitude Toward the Church Scale (Thurstone and Chave, 1929), and the Kirkpatrick Religiosity Scale (1949; also known as the Belief Pattern Scale). With 299 college students as subjects Tennison and Snyder found a significant positive correlation between religiosity and the following scales of the Edwards Personal Preference Schedule (EPPS) (Edwards, 1954): abasement,* affiliation,* deference,* and nurturance*; and a significant negative correlation with achievement,* aggression, autonomy, dominance,* and intraception (correct predictions indicated by asterisks). On the basis of psychoanalytic theory the authors made predictions for eight of the 13 EPPS scales and successfully predicted six of the eight.

Using frequency of church attendance as the index of religiosity on an undergraduate sample, McClain (1970) found differences between those attending with high frequency and those attending "rarely" or "never". High-frequency

attenders scored significantly higher on the EPPS scales of abasement and deference, and significantly lower on autonomy and heterosexuality. On The Sixteen Personality Factor Questionnaire (Cattell and Eber, 1962), high-frequency church attenders were significantly more conscientious, tender-minded, conservative, dependent, and subdued, and significantly less assertive (McClain, 1970). McClain states:

> it appears that nonattendance or irregular attendance has the advantages associated with autonomy, independence, and self-sufficiency. Within this pattern of self-direction are many of the components of creativity: free thinking, freedom from being rule-bound, nonconformity, experimentation, love of the new and the different, access to inner stimuli, initiative, artistic temperament, and inquiring attitude [p. 364].

Broen (1955) found a significant positive correlation between combined scores on three indices of religiosity (Thurstone, 1931; Thurstone & Chave, 1929) and the Minnesota Multiphasic Personality Inventory (MMPI) Pt scale.

Religion Not a Hindrance to Mental Health

Other theorists and studies have given support to the view that religion is not a hindrance to mental health. Indeed some individuals have maintained that religion is necessary for mental health. Jung (1931) writes:

> During the past thirty years, people from all the civilized countries of the earth have consulted me. I have treated many hundreds of patients, the larger number being Protestants, a smaller number Jews, and not more than five or six believing Catholics. Among all my patients in the second half of life--that is to say, over thirty-five--there has not been one whose problem in the last resort was not that of finding a

religious outlook on life. It is safe to say that every one of them fell ill because he had lost that which the living religions of every age have given to their followers, and none of them has been really healed who did not regain his religious outlook [p. 264].

In a study of 3,666 entering college freshman Bohrnstedt, Borgatta, and Evans (1968) found the Conventional Religiosity scale (Francesco, 1959) to be significantly and negatively correlated with seven of the 14 clinical and validity MMPI scales: 2, 3, 4, 5, 8, ?, and F. Bohrnstedt et al. (1968) noted that "the negative correlations between religiosity and D [scale 2] confirm results reported in Brown and Lowe (1948) and Johnson (1948) [p. 258]." Verification of these results from the Brown and Lowe (1948) and Johnson (1948) studies is found in Dahlstrom and Welsh (1960). In summarizing the results of the Johnson (1948) study Dahlstrom and Welsh (1960) also state, "undergraduates with strong feelings against religious beliefs were more likely to have primed codes than those who were active in their church activities [p. 272]." The study by Broen (1955) previously cited found a significant negative correlation between higher scores on the Attitude Toward the Bible scale (Thurstone, 1931) and the MMPI D scale.

In the introduction to their study, which sought a clearer picture of the relationship between religion and mental health, Lowe and Bratten (1966) state:

> While both psychoanalytic personality theory and
> clinical evidence relate heightened religiosity to
> disordered personality states, there has been little
> work of an empirical nature done to test such a hypo-
> thesis in a clinical setting [p. 435].

Lowe and Braaten gathered data on 508 mental hospital

patients. Severity of mental illness was determined by

diagnostic categories, open- versus closed-ward status, vol-

untary and committed status, and length of hospitalization.

Lowe and Braaten found that as the severity of mental ill-

ness increased patients became significantly less certain of

God, tended to feel that God was more remote and impersonal,

were less dependent on God's help, less likely to believe

that God loved them, tended to regard religion more as an

instrument for meeting introverted needs, and were less

concerned about loving their neighbor.

Armstrong, Larsen, and Mourer (1962) compared hospital-

ized psychotics with a nonhospitalized normal group and

found that "the patient groups had significantly less

interest in religion; they also had a lower church atten-

dance, [and] found religion less helpful...[p. 48]." The

previously cited study by McClain (1970) with undergraduate

college students indicated possible personality weaknesses

correlated with frequency of attendance at church or

synagogue. This same study also yielded significant

correlations between less frequent attenders and (1) accep-

tance of the pleasure principle, (2) rejection of the reality

principle, and (3) rejection of the morality principle.

Chambers, Wilson, and Barger (1968) compared entering freshmen who labeled themselves as either affiliated or not affiliated with a religious group. Students were also given the Picture Identification Test (Chambers 1965; Chambers & Lieberman, 1965), which purports to measure numerous Murray (1938) needs. The authors concluded that the religiously nonaffiliated group had more need conflicts; e.g., "non-affiliators...are likely to have inner conflicts which make it difficult for them to express their desires for independence effectively [p. 210]." They also had poorer perception of goals than the religiously affiliated group.

A study by Benson (1966) found church attendance negatively related to meaninglessness.

Religion a Hindrance to Mental Health: It Depends

General Considerations

In contrast to those who maintain that religion is invariably a hindrance to mental health, and also in contrast to those who maintain that religion is not a hindrance to mental health, a third alternative has been proposed. Proponents of this third alternative contend that whether religion is a hindrance or not a hindrance to mental health depends on what kind of religion is under consideration.

In his classic work on the psychology of religion, James (1902) opposed the view that all religious experiences should

be lumped into one stereotyped category. James cites examples of a wide spectrum of religious experience (hence the title, Varieties of Religious Experience), which leads him to conclude: "If an Emerson were forced to be a Wesley, or a Moody forced to be a Whitman, the total human consciousness of the divine would suffer [1902, p. 477]."

According to James, two major temperamental types of religious experience may be delineated: the healthy-minded and the sick-minded. The former temperamental type is more likely to be optimistic and liberal, e.g., Whitman. The sick-minded type is frequently found among those who are inclined to be sensitive, pessimistic, and conservative, e.g., Bunyan, Tolstoy. James asserts that whatever temperamental or even neurotic features may accompany an individual's religion, the individual's religion should nevertheless be judged by its fruits. In keeping with his pragmatic philosophy, James makes a case for evaluating religion on the basis of its pragmatic results rather than on the basis of its historical, physiological, or psychological origins. James admits that many of the major exponents of religion exhibited neurotic personality characteristics. Nevertheless, James asserts that the truth of religion must be determined independently of the neurological types of religious individuals. Thus James maintains that some differences among religious individuals are desirable. He also states

that other distinctions among religious individuals are qualitative, e.g., those in whom religion is a "dull habit" and those in whom it is an "acute fever."

Menninger (1945) argues that religion may be either a help or hindrance to mental health.

> The manner in which a man utilizes his religion--
> whether it be to enrich or ennoble his life or to
> excuse his selfishness and cruelty, or to rationalize
> his delusions and hallucinations, or to clothe
> himself in the comforting illusion of omnipotence--
> is a commentary on his mental health [p. 467].

Allport (1950) made a distinction between the mature and immature religious sentiment. The mature religious sentiment is

> (1) well differentiated; (2) dynamic in character in
> spite of its derivative nature; (3) productive of a
> consistent morality; (4) comprehensive; (5) integral;
> and (6) fundamentally heuristic [p. 57]. ... An
> heuristic belief is one that is held tentatively until
> it can be confirmed or until it helps us discover a
> more valid belief. ... The heuristic believer's
> [faith] is his working hypothesis [p. 72].

Adorno et al. (1950) found significant positive rela-
tionships between religiosity and authoritarianism, ethno-
centrism, prejudice, and anti-Semitism. However, one of the conclusions of these same studies was that what a person believes and how a person holds his beliefs are important considerations in determining the relationship between religion and prejudice.

> In general, it appeared that gross objective fac-
> tors--denomination and frequency of church attendance--
> were less significant for prejudice than were certain
> psychological trends reflected in the way the subject

accepted or rejected religion and in the content of his religious ideology [Adorno et al., 1950, p. 221].

In a recent study which used the Rokeach (1960) Dogmatism scale and the California Personality Inventory (CPI), Gilmore (1969) concluded,

> This study provides clear support for the general hypothesis that within a group of Pentecostal believers known to hold highly fundamental religious beliefs, it is possible to identify individuals who hold their beliefs in an open or non-dogmatic manner, and, further, that these non-dogmatic Pentecostals score significantly higher on measures of personal adjustment and interpersonal skill [i.e., the CPI] than do closed or dogmatic Pentecostals [p. 164].

Gilmore (1969) also found that non-dogmatic Pentecostals were as well adjusted as college students and the normative samples of the CPI.

Various theologians, mental hospital chaplains, pastoral counselors, seminary professors of pastoral psychology, general practitioner pastors, and religiously trained college teachers have recognized and made distinctions between psychologically healthy and unhealthy religious faiths (e.g., Bruder, 1963; Buttrick, 1942; Clark, 1958; Clinebell, 1965; Cortes, 1965; Johnson, 1945, 1958; Miller, 1965; Oates, 1955, 1958, 1970, 1973; Roberts, 1950; St. Clair, 1963; Tillich, 1951, 1952, 1957a, 1957b, 1963; Wise, 1942, 1951, 1956). These religious leaders recognize that the wrong kind of religious faith may produce an individual who is rigid, overdependent, repressive, unproductive, inhibited, self-destructive, grandiose, sadistic, unrealistic, obsessive-compulsive,

insensitive to actual consequences, self-deceived,
regressive, negative, isolated, a blind conformer, an
obstructor of progress, passive, or overbearing. In fact,
these religious leaders acknowledge that the wrong kind of
religious faith may result in any variety of neurosis,
psychosis or maladaptive behavior. These same religious
leaders (cited above) take the position that the right kind
of religious faith may initiate, perpetuate, and improve
psychological health. Nevertheless, these religious leaders
do not endorse everything which is done in the name of
religion. In the words of Allport and Ross (1967), these
religious leaders are not "indiscriminately proreligious."
Some religious leaders have maintained that Freud's criticism
of religion would in the long run be helpful in purging
religion from some of its spurious forms of expression.

Fosdick contended that what Freud called religion Jesus
called sin (cited by Oates, 1955, p. 27). Apparently the
most severe words that Jesus ever spoke were directed to re-
ligious people, particularly religious leaders. Jesus forth-
rightly rebuked the scribes and Pharisees for their hostile
and stubborn resistance to truth, their hypocrisy, and their
preoccupation with triviality (Matthew 23). On one occasion
when the religious leaders sought to entangle Jesus in his
talk by asking him trick questions, Jesus handled their ques-
tions adroitly and made the comment, "Truly, I say to you,
the tax collectors and the harlots go into the kingdom of

God before you [Matthew 21:31]." On another occasion the
Pharisees and scribes accused his disciples of not follow-
ing the ceremony of washing their hands at meals, and Jesus
said, "And why do you transgress the commandment of God for
the sake of your tradition [Matthew 15:3]," and, quoting
Isaiah, Jesus added

> 'This people honors me with their lips,
> but their heart is far from me;
> in vain do they worship me,
> teaching as doctrines the precepts of men
> [Matthew 15:8-9].'

That Jesus did not endorse everything that was done in the
name of religion is seen in his admonition, "Not every one
who says to me, 'Lord, Lord' shall enter the kingdom of
heaven, but he who does the will of my Father in heaven
[Matthew 7:21]." Moreover, Jesus told a parable in which
the wheat and tares (good seed and weeds) grew up together
(healthy and unhealthy religion). The servants in the
parable ask whether the two should be promptly separated.
But the servants were told to leave the two together since
if they attempted to destroy the weeds they might destroy
the good seeds as well. Wait until the harvest when they
can be safely separated [Matthew 13:24-30]. Thus Jesus was
aware of qualitative differences between various forms of
religious expression.

Nor have other leaders of the world's chief religions
been indiscriminately proreligious. Mohammed, Buddha,

Zoroaster, Krishna, Moses, Mahavira, Nanak, and Confucius
have all sanctioned certain religious beliefs and practice
and repudiated others. For example, on one occasion Buddha
was approached by a would-be disciple who complained that
he, Malunkyaputta, would not be willing to follow the
Blessed One unless the Buddha would elucidate certain theo-
retical religious questions. Buddha believed, however, that
answering such questions was unnecessary and diverted
attention from more urgent matters. So Buddha replied:

> "It is as if, Malunkyaputta, a man had been
> wounded by an arrow thickly smeared with poison, and
> his friends and companions, his relatives and kinsfolk,
> were to procure for him a physician or surgeon; and the
> sick man were to say, 'I will not have this arrow taken
> out until I have learnt whether the man who wounded me
> belonged to the warrior caste, or to the Brahmana
> caste, or to the agricultural caste, or to the menial
> caste.'
> "Or again he were to say, 'I will not have this
> arrow taken out until I have learnt whether the arrow
> which wounded me was an ordinary arrow, or a claw-
> headed arrow, or a vekanda, or an iron arrow, or a calf-
> tooth arrow, or a karavirapatta.' That man would die,
> Malunkyaputta, without ever having learnt this [The
> Majjhima-Nikaya, Sutta 63]."

Intrinsic and Extrinsic Religion

This subsection describes some of the major theoretical
and empirical attempts which have been made to pinpoint
areas where differences in religious belief may determine
whether religion hinders or does not hinder mental health.

Allport sought to distinguish between intrinsic and
extrinsic religion. According to Hunt and King (1971), the

intrinsic and extrinsic concepts developed out of Allport's
earlier thinking and experimental work.

> The germ of the I-E [intrinsic-extrinsic] concept
> appeared undefined and unnamed in The Individual and
> His Religion (Allport, 1950, p. 59). In the Nature of
> Prejudice, Allport (1954, pp. 451-56) discussed "two
> kinds of religion" related to ethnic prejudice. The
> terms "interiorized" and "institutionalized" were used
> for I and E, respectively; but no formal definition
> was given. He first introduced I and E labels in the
> Tufts lecture published as "Religion and Prejudice"
> (Allport, 1959). The first of his two succinct,
> formal definitions appeared in a preface written for a
> reprinting of that article (Allport, 1960). His most
> complete, and regretfully his last, discussions of the
> concept were in "The Religious Context of Prejudice"
> (Allport, 1966) and "Personal Religious Orientation
> and Prejudice" (Allport and Ross, 1967) [Hunt & King,
> 1971, p. 340].

Extrinsically religious individuals are described thus:

> Persons with this orientation are disposed to use
> religion for their own ends. The term is borrowed
> from axiology, to designate an interest that is held
> because it serves other, more ultimate interests.
> Extrinsic values are always instrumental and utili-
> tarian. Persons with this orientation may find
> religion useful in a variety of ways--to provide
> security and solace, sociability and distraction,
> status and self-justification. The embraced creed is
> lightly held or else selectively shaped to fit more
> primary needs. In theological terms the extrinsic
> type turns to God, but without turning away from self
> [Allport & Ross, 1967, p. 434].

On the other hand, intrinsically religious individuals are
characterized thus:

> Persons with this orientation find their master
> motive in religion. Other needs, strong as they may
> be, are regarded as of less ultimate significance, and
> they are, so far as possible brought into harmony with
> the religious beliefs and prescriptions. Having em-
> braced a creed the individual endeavors to internalize
> it and follow it fully. It is in this sense that he
> lives his religion [Allport & Ross, 1967, p. 434].

Allport's distinction between extrinsic and intrinsic religion was an attempt to determine what kind of religion was more likely to be related to prejudice and what kind of religion was less likely to be related to prejudice. Allport's distinction between extrinsic and intrinsic religious types seems to have grown out of earlier studies where casual, less frequent church attenders were found to be higher in prejudice than the more devout, frequent church attenders. Nonattenders were frequently found to be less prejudiced than casual church attenders but devout attenders were often found to be less prejudiced than nonattenders.

Allport reasoned that if religion makes for prejudice, then the more a person exposed himself to religion, the more prejudiced he would become. However, Allport observed that there was evidence of a curvilinear relationship between church attendance and prejudice. "Many studies show that frequent [church] attenders are less prejudiced than infrequent attenders and often less prejudiced even than nonattenders [Allport & Ross, 1967, p. 433]." In support of the curvilinear relationship between church attendance and prejudice, Allport et al. (1967) cite studies by Adorno et al. (1950), Friedrichs (1959), Holtzman (1956), Pettigrew (1959), Pinkney (1961), Struening (1963), and Tumin (1958).

Allport et al. (1967) regard the casual, infrequent church attender as one who is more likely to be extrinsic

in religious orientation and more prejudiced, whereas the devout, frequent attender is more likely to be intrinsic in his religious orientation and freer of prejudice.

On the basis of Allport's proposed distinction between extrinsic and intrinsic religion, Wilson (1960) developed a 15-item dichotomous Extrinsic Religious Values Scale (ERV). Wilson found that with a variety of religious groups his ERV correlated significantly higher with the California Anti-Semitism Scale (AS) than did Levinson's (1954) Religious Conventionalism Scale (RC). The RC scale is a general measure of religiosity and is not designed to distinguish between extrinsic and intrinsic religion. Thus Wilson found that a certain kind of religion, i.e. extrinsic religion, correlated significantly higher with a measure of prejudice than did a general measure of religiosity.

Wilson's (1960) ERV was designed to measure extrinsic religion only and made no attempt to measure intrinsic religion. Another scale designed to measure both extrinsic and intrinsic religion was developed by members of a seminar at Harvard, apparently under Allport's leadership. This instrument is referred to as the Intrinsic/Extrinsic scale by Feagin (1964), and as the Religious Orientation scale by Allport and Ross (1967). The two scales contain the same items except that one of the 21 items used by Feagin (1964) in his study is omitted in the study by

Allport et al. (1967). In both studies a significantly

higher positive relationship was found between extrinsically

religious subjects and prejudice than was found with

intrinsically religious subjects.

The Allport and Ross (1967) study also turned up

unexpected findings which are summarized by Robinson and

Shaver (1973):

> there were also a number of people who agreed with
> both sets of items [extrinsic and intrinsic], and
> they were the most prejudiced of all! Allport and
> Ross labeled them "indiscriminantly proreligious."
> Since their sample was drawn from church-attenders
> they did not have a chance to observe the fourth
> possible type of person, the "indiscriminantly anti-
> religious (or non-religious)." Recent unpublished
> research with college students, however (Robert
> Brannon, personal communication), indicates that in
> liberal environments such people abound. It remains
> to be seen how they would actually score on prejudice
> measures, however [p. 637].

Protestant Religious Beliefs: Focus of the Present Study

The present study is primarily concerned with the

religious beliefs of Protestants. Therefore, attention is

now directed to some of the specific areas where variant

Protestant beliefs may differentially affect mental health.

Repression and control.--Allport's proposal to separate

out intrinsic and extrinsic religious types to discover

whether they are differentially related to prejudice appears

to be promising. Distinctions among Protestant religious

beliefs along dimensions other than those proposed by

Allport would seem to warrant investigation. Such
distinctions may be fruitful in researching possible
differential relationships with adjustment measures. One of
the major lines of distinction among Protestant beliefs
theorized in the present study is that of unhealthy emotional
repression, and healthy emotional expression and control.

One individual may believe that his religion exempts
him from experiences or temptations of anger, sex, anxiety,
doubt, meaninglessness, despair, or grief--with consequent
repression, denial, anxiety, or guilt. Another individual
may believe that his religion does not require him to deny
his experiences or temptations of anger, sex, anxiety, doubt,
meaninglessness, despair, or grief, but that he is able to
admit, suppress, seek to change, accept, control, or express
these emotions--whichever is appropriate and in accordance
with his personal convictions.

Some Protestants regard temptation as sin. For
example, those who see temptation as sin find it hard to
believe that Jesus did not fail in some way when he cried
from the cross, "My God, My God why hast thou forsaken me
[Matthew 27:46]?" On the other hand, those who make a
distinction between temptation and sin (e.g., Tillich,
1957a) interpret Jesus' cry of dereliction as another
instance in which Jesus participated in the depths of our
humanity (doubt, despair, meaninglessness), but where at

the same time he was able to express honestly what he was
going through, and where at the same time he maintained
faith and control even in the midst of his experience of
disintegrated meaning. This type of faith is not based on
feeling but is the faith which stands when other supports
are taken away (Tillich, 1952). Thus a faith which inte-
grates the experience of doubt is considered as radically
different from the faith which denies the existence of ex-
perienced doubt. Similarly with other affective and
intellectual states.

Jesus said it was "necessary that temptations come
[Matthew 18:7]," and Jesus himself "was in all points
tempted like as we are, yet without sin [Hebrews 4:15]."
The prayer which Jesus taught to his disciples states,
"...lead us not into temptation,/But deliver us from evil
[Matthew 6:13]," which implies that temptation is inevi-
table and that we are not to be delivered from temptation,
but delivered from the evil to which it tempts us. Contrary
to Christ's realism regarding temptation are those who have
taught and believed that Protestants are not supposed to ex-
perience temptation. Many Protestants have been taught and
have believed that they should love and feel no anger, that
decent people do not experience sexual desire except for
their spouse, that those who have faith never experience
doubt, fear, or anxiety; that if you are a Christian you do

not grieve over a lost loved one, that you always feel that
God is real, and that you do not have any problems. Jesus
taught the responsible handling of emotions but did not
teach that when a person commits himself to the Christian
way he no longer experiences negative emotions or
temptations.

Just as some people may deny certain emotions and
temptations, others may believe that there is no need to
control or restrain emotions, impulses, and temptations.
The present study seeks to test the theory that Protestant
beliefs which indicate lack of control are related to
maladjustment measures as well as beliefs that lead to
repression.

Material possessions, the flesh, and the self.--Other
lines of distinction among Protestant beliefs which may
differentially relate to maladjustment measures are found
in the areas of material possessions, the flesh, and the
self. Protestant teaching and preaching have often left
people with the impression that material possessions and
money are inherently evil, that all self-seeking is sin, and
that the flesh is to be despised. Although these aspects of
people's lives have repeatedly become detrimental obsessions
and idolatrous distortions, Biblical theology teaches that
God originally intended for them to be good: "In the be-
ginning God created.... And God saw that it was very good

[Genesis 1:1,31]," "seek ye first the kingdom of God, and
his righteousness; and all these things [food, drink,
clothing] shall be added unto you [Matthew 6:33]," "your
body is a temple of the Holy Spirit [1 Corinthians 6:19],"
"And the Word became flesh... [John 1:14]," "the laborer
deserves his wages [Luke 10:7]," "How hard [but not im-
possible] it is for those who have riches to enter the
kingdom of heaven [Luke 18:24]."

Similarly, Protestants have frequently been given the
impression that all self-seeking is wrong and have conse-
quently engaged in orgies of masochistic behavior. However,
the great commandment, endorsed by Christ, includes proper
love for one's self under God: "Thou shalt love the Lord thy
God.... Thou shalt love thy neighbour as thyself [Matthew
22:37,39]." There is a self that is legitimate, made in the
image of God, which should be affirmed, respected, nurtured,
developed, and expressed; and which should glorify God.
There is another false, narrow, diabolic, and distorted self
which is the self that is to be denied. Bernard of Clairvaux
(c. 1140) described four stages of spiritual development:

1. Loving oneself for one's own sake
2. Loving God for one's own sake
3. Loving God for God's sake
4. Loving oneself for God's sake [cited by Oates,
     1973, p. 68].

According to Bernard of Clairvaux, proper love for one's self
is guided by and may be an expression of one's love for God.

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Important distinctions between selfishness and healthy
self-love have been made by Fromm (1947, 1956).

Religious beliefs may also lead a person to grandiosity,
to conceptions of personal uniqueness or privilege before
God or other people which are unwarranted and unrealistic.
It is one thing for a person to believe that he is the
object of God's love; it is another to believe that God
loves him more than he loves other people.

Thus Protestant beliefs which exaggerate one's special
status before God or other people, or beliefs that deny
legitimate self-love, are regarded in the present study as
unhealthy.

Freedom, responsibility, sin, guilt, and forgiveness.--
Important distinctions may be made among the different
beliefs Protestants hold regarding freedom, responsibility,
sin, guilt, and forgiveness, which may differentially relate
to maladjustment measures.

Some persons believe they have no freedom, others
believe their freedom is unlimited, and others believe they
have a limited measure of freedom. It is theorized that the
first two views of freedom are positively related to
maladjustment.

Release from exaggerated and imaginary guilt has been
an important goal in psychology and psychoanalysis for
decades. More recently there has been a renewal of emphasis

upon the importance of individual responsibility (Glasser,
1965; Mowrer, 1961, 1964; Menninger, 1973; Berne, 1961,
1964), development of a healthy conscience (Mowrer, 1961,
1964; Menninger, 1973), recognition of the reality of
behavioral consequences (Glasser, 1965; Skinner, 1969),
individual acknowledgement of real guilt and sin (Mowrer,
1961, 1964; Menninger, 1973), the genuine need for forgive-
ness (Mowrer, 1961, 1964), the importance of decisions and
contracts (Berne, 1966; Harris, 1967; Steiner, 1971), and
the importance of the conative-volitional aspect of
personality (May, 1969). Protestant beliefs which either
deny or distort the realities of freedom, responsibility,
sin, guilt, and forgiveness are theorized in the present
study to positively relate to maladjustment.

Functional autonomy.--Allport (1961) defined functional
autonomy as "any acquired system of motivation in which the
tensions involved are not of the same kind as the antecedent
tensions which the acquired system developed [p. 229]."
The son of a politician may at first imitate his father's
political behavior. Later the son may engage in political
activities because he has chosen them for himself (Allport,
1961).

Protestant beliefs may or may not be functionally
autonomous. Beliefs may reflect unthinking imitation or
they may be rigorously and independently thought out.

Religious beliefs may be parroted platitudes or they may arise from deep and authentic personal meanings. Whether or not an individual has thought through his beliefs and chosen them for himself is theorized to differentially relate to maladjustment. This is particularly true in the late teen and adult years, when developmentally the mature individual may realistically be expected to achieve functional autonomy.

Acceptance of self, others, and God.--A crucial point in theology and psychology is an individual's ability to accept the acceptance of others and to accept one's self. Rogers (1959) has stated the importance of "unconditional positive regard [p. 208]" on the part of the therapist for the client. But a person may not believe that a therapist or other people accept him unconditionally even when this acceptance is an actual objective reality. Rather he may believe that others are against him, make impossible demands of him, and do not care about him. Such tendencies when they become extreme may be labeled as paranoia.

Likewise, psychological problems may occur when an individual is unable to achieve a reasonable measure of self-acceptance. Harris (1967), an exponent of transactional analysis, has stated in simplified popular form various combinations of self- and other-acceptance and nonacceptance which he calls life positions:

1. I'm not ok--you're ok
2. I'm not ok--you're not ok
3. I'm ok--you're not ok
4. I'm ok--you're ok

Harris designates the last position as healthy and the other three as unhealthy. In Protestant theology the need for acceptance is extended to include the dimension of an individual's relationship with God. Since the Reformation, Protestant theology has held that self-justification and self-rejection result in a breakdown in one's relationship with God (e.g., arrogance, anxiety, guilt, estrangement). Neither insisting that God accept one because one thinks he is good enough (self-justification) nor refusing to believe that one could possibly be accepted because one is not good enough (self-rejection)--neither of these positions is the proper basis of a relationship with God according to Protestant thought. Rather the proper basis is believed to be justification by faith, or, as Tillich (1948) has stated it, accepting the fact that God accepts you in spite of your unacceptability.

It is theorized that Protestants who are self-justifying or self-rejecting, or who are unable to come up with a reason for acceptance--have difficulty accepting the acceptance of God and of others. Such persons are more likely to be maladjusted.

Persuasion and coercion.--When a confrontation occurs between persons of different belief systems, the discussion may deteriorate into destructive conflict. The unpleasant emotional escalations which may come out of such encounters have prompted some to avoid serious involvement in religion and religious debate. Some people believe religious issues can never be proven one way or the other, so that discussion of such issues is futile. Thus the statement is commonly made that one should avoid the discussion of religion and politics, presumably for the sake of avoiding futility and keeping the peace.

Many people are sensitive and resentful when someone asks them if they have made a particular type of religious commitment or when someone seeks to persuade them to change their religious belief, or even to discuss religious beliefs. People who approach others with religion are often considered obscene, out of order, abnormal, insulting, untactful, antisocial, fanatical, irrational, absurd, or presumptuous-- which may or may not do justice to the facts. If religion has become a taboo subject (Farberow, 1963), then some of the same detrimental effects that accrue from treating sex as a taboo subject may be expected to occur.

If persuasion involves genuine respect for another person's freedom, and if coercion, on the other hand, is devoid of respect for the freedom of other persons, then an important distinction may be made between persuasion and

coercion. Protestants who confuse persuasion and coercion in their thinking, feeling, and behavior may be less psychologically healthy than those who are able to achieve this distinction. Protestants who overreact and dogmatically or disrespectfully reject religious encounters may be less psychologically healthy than those who open-mindedly or respectfully decline or accept such encounters. Furthermore, Protestants who use tactics of coercion in religious encounters would be suspect as to the psychological problems or unhealthy religious beliefs which might motivate such behavior.

Measuring the Religious Variable
General Considerations

The aim of the present study is to test the proposition that whether or not Protestant religious belief hinders or does not hinder mental health depends upon the particular kind of beliefs which are adhered to; that is, it depends upon the nature of an individual Protestant's beliefs about religion.

The question then arises: what method is most effective for measuring an individual's beliefs about religion? A brief and helpful introduction to the measurement of the religious variable is given in Robinson and Shaver (1973). Some of the more frequently used and promising religious measuring instruments are given verbatim, with introductions

to each instrument by Robinson and Shaver (1973) and Shaw and Wright (1967).

Many religious instruments are attitude scales, either of the Likert type (e.g., Allport & Ross, 1967; Brown, 1962; Brown & Lowe, 1951; Dynes, 1955; Feagin, 1964; King, 1967; Martin & Westie, 1959; Putney & Middleton, 1961; Thouless, 1935; Wilke, 1934) or Thurstone type (Ausubel & Schpoont, 1957; Bardis, 1961; Ferguson, 1944; Poppleton & Pilkington, 1963; several scales by Thurstone, 1931; Thurstone & Chave, 1929); some instruments are multiple-choice (Faulkner & DeJong, 1965; Survey Research Center, 1969), some are forced-choice questionnaires (Broen, 1956; Kirkpatrick, 1949), dichotomous-choice (Wilson, 1960) or true-false (Martin & Nichols, 1962); some employ a combination of item types (Funk, 1958; Glock & Stark, 1966; Glock, Ringer & Babbie, 1967; Lenski, 1961); there is at least one adjective check list (Gorsuch, 1968), ipsative scale (Allport, Verson & Lindzey, 1960), essay (Brown, 1964), interview (Allen & Spilka, 1967), and one identification with descriptions of religious experience (Hood, 1970).

These instruments were examined and evaluated as to their suitability for the present purpose of assessing unhealthy beliefs about religion. It was concluded that the available instruments were unsatisfactory for the present study for one or more of the following reasons: too direct,

too narrow in scope, too general, too lacking in depth or precision, or too discrepant in purpose from the desired aims of the present study. The interview, as conducted by Allen and Spilka (1967) and modified for the present purpose, was considered promising but too costly.

Consideration was given to the possibility of constructing a questionnaire designed particularly for the purposes of the present study. This was abandoned because this method was deemed too direct for the present study to adequately handle the problems of social desirability or religious desirability. Furthermore, the construction of an indirect, customized questionnaire was thought to require a larger investment of resources than were available for the present study. Various projective methods were then considered, and the sentence completion method appeared to be an appropriate, relatively simple and efficient method for the purposes of the present study.

Sentence Completion Method

Brief histories, overviews, and summaries of research on the sentence completion method are found in Goldberg (1965), Sacks and Levy (1950), Lanyon (1970), and Daston (1968).

In a handbook of readings on projective techniques, editor Murstein (1965) states in the introduction to Goldberg's (1965) article,

> This is the most comprehensive and, in my opinion,
> the best review written on the Sentence Completion
> Method. Further, the thoroughness of the article
> reveals a very unanticipated fact (at least to the
> editor). The Sentence Completion Method is a valid
> test, generally speaking, and probably the most valid
> of all the projective techniques reported in the
> literature [p. 777].

Sundberg's (1961) survey listed Sentence Completion Tests

(of all kinds) as 13th in frequency of use among other

psychological tests. Murstein (1965) points out that one

reason why the sentence completion test has not been used

more frequently is that "it is not as glamorous as the

Rorschach and TAT and has little of the mystical about it to

inspire a cult [p. 778]."

Research on the sentence completion method has centered

around three major areas (following Goldberg, 1965): (1)

effects of instruction and set, (2) effects of variation of

sentence stem, and (3) treatment of responses.

Instruction and set.--There is little evidence to

indicate that instructions which emphasize truthfulness

("Complete these sentences to express your real feelings,"

Rotter Incomplete Sentence Sentences Blank, 1950, p. 5) or

speed ("Complete as rapidly as possible with the first

thing that comes to your mind," Stein, 1947, p. 48) produce

better results than instructions that do not emphasize

these elements (Goldberg, 1965). However, Meltzoff (1951)

found that instructions which were higher in threat pro-

duced more positively toned responses, and instructions

lower in threat produced more negatively toned responses. Meltzoff concluded that subjects have some power to control their responses in accordance with different instructions, set, and levels of threat.

Variation of sentence stem.--Rotter and Rafferty (1950) and Holsopple and Miale (1954) favor sentence stems with minimal structure, e.g., "I like/," "People/," "I can't/," "Reading/," "Sometimes/." Forer (1950), however, favors greater stem structure, e.g., "I could hate a person who/," "When my father came home, I/," "When I am criticized, I/." Forer believes that greater stem structure evokes fewer evasive responses and makes the interpretation of responses easier and more definite.

Person reference (I; or he, she; or an arbitrary proper name) of the sentence stem has received research attention. Although the evidence is inconclusive, first-person stems seem to be most productive generally; however, third-person stems may be more productive of negative feelings. These are the conclusions of Lanyon, 1970, who relies mainly on Sacks' (1949) study because of the weaknesses she finds in other studies in this area.

Treatment of responses.--The third major area of research on sentence completion methodology is the treatment of responses. Treatment of responses has been classified

by Goldberg (1965) into (a) formal analysis, (b) content

analysis, with two subtypes: impressionistic and objective.

Formal analysis of responses includes such characteris-

tics of responses as length of completion, use of personal

pronouns, time for reaction and for completion, absolute

and relative frequency of parts of speech, range of words

used in relation to number of words used, and first word used

(classifications reviewed by Benton, Wilde & Erdice, 1957,

cited by Goldberg). According to Goldberg (1965), formal

analysis of sentence completion responses has not generally

yielded promising results.

Impressionistic methods of treating sentence completion

responses has been endorsed and used particularly by

Holsopple and Miale (1954), although there seems to be little

empirical support for this method. Stein (1947), Sacks and

Levy (1950), and Forer (1960), for the purposes of clinical

interpretation, favor some structuring of treatment re-

sponses. However, they oppose the more highly structured

semi-objective scoring system of Rotter and Rafferty (1950).

Rotter and Rafferty (1950) developed a manual for

scoring responses on their Incomplete Sentences Blank (ISB).

The ISB yields a single total score of adjustment. The ISB

interrater reliabilities are .91 and .96 for male and

female protocols respectively (Rotter & Rafferty, 1950).

The ISB has been cross-validated by Churchill and Crandall

(1955). Other semi-objective scoring systems have also
produced significant research results (Rohde, 1957; Stotsky
& Weinburg, 1956; Sechrest & Hemphill, 1954; Rychlak,
Mussen & Bennett, 1957; Jenkins and Blodget, 1960).

Whether impressionistic or a combination of
impressionistic and moderate structuring or a semi-objective
specific scoring system is preferable seems to depend on
the purposes one is seeking to achieve (Goldberg, 1965).
Specific scoring methods appear to be better for specific
research purposes, whereas less structured approaches seem
to be more suitable for broad clinical purposes.

Advantages and disadvantages.--Examination of numerous
studies by Goldberg (1965) led him to the conclusion that
the sentence completion method has been "relatively un-
successful" in measuring the variables of intelligence,
achievement, and social perception, but has had "consistent
success" in the areas of the psychological adjustment of
adults and the evaluation of the severity of psychiatric
disturbance [pp. 38, 39].

The following advantages and disadvantages of the
sentence completion method have been summarized by Rotter
and Rafferty (1950).

    1. There is freedom of response. That is, the sub-
       ject is not forced to answer yes, no or ? to the
       examiner's question. He may respond, instead, in
       any way he desires.

2. Some disguise in the purpose of the test is present. Although the subject may be aware of the general intent, what constitutes a "good" or "bad" answer is not readily apparent to most subjects.

3. Group administration is relatively efficient. Most incomplete sentences tests can be given to a group of any size without apparent loss of validity.

4. No special training is ordinarily necessary for administration. Interpretation depends on the examiner's general clinical experience, although the examiner does not need specific training in the use of this method.

5. The sentence completion method lends itself easily to objective scoring for screening or experimental purposes. ...the Incomplete Sentences Blank demonstrates the ease with which relatively objective scoring may be done.

6. The time of administration tends to be shorter than for most tests and the time of scoring or analysis tends to be shorter than for most projective techniques.

7. The method is extremely flexible in that new sentence beginnings can be constructed or "tailor made" for a variety of clinical, applied and experimental purposes.

On the other hand, the method has three major disadvantages as compared to other personality measures.

1. Although susceptible to semi-objective scoring, it cannot be machine scored and requires general skill and knowledge of personality analysis for clinical appraisal and interpretation.

2. There is not as much disguise of purpose as in other projective methods. Consequently, a sophisticated subject may be able to keep the examiner from knowing what he does not wish to reveal.

3. Insufficient material is obtained in some cases, particularly from illiterate, disturbed or uncooperative subjects. Application of the method as a group test also requires writing and language skills and has not yet been adequately evaluated for potential clinical usefulness for younger children[p.4].

Some of the advantages of the sentence completion method listed by Rotter and Rafferty seem particularly suited for assessing psychologically unhealthy beliefs about religion. For example, freedom of response is both an opportunity and a requirement for a $\underline{S}$. It is an opportunity in that the $\underline{S}$ is not limited to whatever responses might be presented to him as options by the $\underline{E}$. The $\underline{S}$ is free to respond in whatever way he choses. This is particularly important when one considers the wide variety of beliefs which individuals of different per- suasions hold about religion. Furthermore, the $\underline{S}$ does not have socially and religiously desirable or undesirable options provided for him to evaluate, reject, or accept. Desirable and undesirable responses in many of the existing instruments which measure the religious variable are easily recognized. In contrast, the sentence completion method requires a $\underline{S}$ to provide his own response, and religiously desirable or undesirable responses for a given sentence stem may not be what the $\underline{S}$ expects. As Rotter and Rafferty (1950) maintain, some disguise is achieved for some $\underline{Ss}$.

Moreover, the advantage of group administration is a desirable if not necessary feature of the sentence completion method for the present study.

Definitions

In the present study Protestant and non-Protestant individuals are defined according to self-ratings of subjects regarding their strongest religious or non-religious influence in the past, and the name that best describes a subject's present nonreligious or religious belief.

Protestants are defined in terms of the following combinations of past and present self-ratings:

> PAST Agnostic, Atheist, Non-Protestant, Protestant, or Other; and Protestant, or Other (specific commitment to a Protestant group indicated) PRESENT
> PAST Protestant, or Other (specific commitment to a Protestant group indicated); and Agnostic, Atheist, or Other (no specific commitment to a Non-Protestant group indicated) PRESENT

Non-Protestant individuals are defined in terms of the following combinations of past and present self-ratings:

> PAST Agnostic, Atheist, Non-Protestant, Protestant, or Other; and Non-Protestant, or Other (specific commitment to Non-Protestant group indicated) PRESENT
> PAST Agnostic, Atheist, or Other (no specific commitment to a Protestant group indicated); and Agnostic, Atheist, or Other (no specific commitment to a Protestant group indicated) PRESENT

Statement of the Problem

Are certain beliefs of Protestants, regarded as unhealthy, significantly correlated with psychological maladjustment?

Hypotheses

The following hypotheses are investigated in the present study:

1. For the Protestant group, there is a significant positive correlation between the total unhealthy religious belief scores on the Religious Sentence Completion Inventory (RSCI), and total weighted maladjustment scores on the Minnesota Multiphasic Personality Inventory (MMPI).

2. For the Protestant group, the total unhealthy religious belief scores on the RSCI are significantly and positively correlated with T scores on each of the following MMPI clinical scales: 1, 2, 3, 4, 6, 7, and 8; and with MMPI validity scale F. There is no significant positive correlation between the RSCI, and MMPI clinical scale 9.

3. For the Protestant group, the RSCI is a better predictor of the MMPI criteria (total weighted maladjustment score, clinical scales 1, 2, 3, 4, 6, 7, 8, and validity scale F) than are traditional measures of religiosity (church membership, church attendance frequency, prayer frequency, and Bible reading frequency).

CHAPTER II

METHOD

Subjects

One hundred and three North Texas State University
(NTSU) Protestant undergraduate students from nine sections
of required freshman and sophomore English courses, first
summer session, 1974, served as Ss. According to the NTSU
Registrar's Office, 214 students were enrolled in the nine
English sections to which the survey materials of the
present study were administered. Ss who dropped, were
absent from class when the survey was administered, or who
rejected the survey task were not included in the present
study. Also, Ss who participated in the survey but who
were categorized as non-Protestant (34 individuals) were not
included in the statistical calculations of the present
study. Non-Protestants were excluded because the sentence
stems and Scoring Manual of the Religious Sentence
Completion Inventory (RSCI) appear to be most appropriate
for Protestant Ss.

Ss ranged in age from 17 to 36, mean 20.65, median 19,
and mode 18. Fifty of the Ss were males, and 53 were
females; 82 of the Ss were single, 17 married, and four
were divorced.

Seventy-two Ss were freshmen, 15 sophomores, 12 juniors, 3 seniors, and one was a graduate student.

Forty-three Ss were categorized into the upper socio-economic class, 51 into the middle class, and 9 into the lower class. Ss were categorized according to a system based on father's annual income and/or vocation, and adapted from Hodge, Siegel, and Rossi (1964).

Eighty-four of the Ss were Caucasian, 17 were Black, one was Latin American, and one was Oriental.

Fourteen of the Ss were Education majors, 14 were Biology and health-related, 12 Business, 7 Music, 6 Sociology; and the other Ss were representative of the undergraduate majors available to students at NTSU.

Measuring Instruments

A Religious Sentence Completion Inventory (RSCI), Form A, was constructed to measure psychologically unhealthy religious beliefs. Sentence stems were derived by examining references in theology, psychology, psychology of religion, existing instruments which measure religious variables, and verbatim stems of other sentence completion tests. Several religious stems were found in other sentence completion tests. For example: "God is/," "Religion/," "Death/ [Rohde, 1957, pp. 55, 56, 57];" and "God/," "Sin/," "Death/ [Kelly & Fiske, 1951, Michigan Sentence Completion Test, pp. 218, 219]." Nine

racial-religious stems were used in the study by Glock and
Stark (1966), e.g., "I can't understand why Jews/," "I can't
understand why Catholics/," "Its a shame Protestants/
[Appendix, p. 12]." Two sentence completion stems were
used in a religious study by Brown (1964): "For me as an
individual person, a set of religious beliefs/," and, "In
my everyday life, religious beliefs/ [p. 94]."

Keeping in mind the suggestions which came from the
examination of the sources mentioned above, and the theo-
retical and empirical considerations set forth in previous
sections of the present study, a pool of approximately 600
religious sentence stems were generated. One hundred items
were selected from the pool of sentence stems to make up the
RSCI, Form A. The RSCI, Form A was used in a pilot study
with 33 undergraduate student $\underline{S}$s. Responses to the 100
stems in the pilot study were examined for each $\underline{S}$.
Thirty-five of the 100 original item stems were selected to
be scored. This selection of sentence stems for scoring
was made on the basis of theoretical considerations drawn
from theology and psychology, and on the basis of empirical
statistical analysis of pilot study RSCI responses and
their correlation with criteria measures of psychological
maladjustment. A scoring manual made up of categories and
examples of responses to be scored either "one" or "zero"
was compiled.

It was decided to retain the 100-item RSCI, Form A, for the main study in spite of the fact that only 35 of the items would be scored, and 65 items not evaluated. This was done for two reasons: (1) to avoid carry-over effects which might occur if the scored stems were placed too close together. The nonevaluated items therefore serve as fillers. (2) To accumulate responses from a broader sample of Ss. Additional responses from undergraduate Ss, including the present main study, and a sampling of church populations and mental hospital patients in future projects seems desirable before making a final decision on the exclusion or inclusion of items.

The criterion measure of psychological maladjustment for the main study was the Minnesota Multiphasic Personality Inventory (MMPI) (Hathaway & McKinley, 1943, 1967).

> The Minnesota Multiphasic Personality Inventory (MMPI) is designed to provide an objective assessment of some of the major personality characteristics that affect personal and social adjustment. The point of view determining the importance of a trait in this case is that of the clinical or personnel worker who wishes to assay those traits that are commonly characteristic of disabling psychological abnormality [Hathaway and McKinley, 1967, p. 7].

In the present study the old Group Form of the MMPI was administered in abbreviated form. Thirteen scattered (nonsequential) items were added to the first 366 items to allow full scoring of all MMPI clinical and validity scales relevant to the present study (scales Mf and 0 excluded).

Since 13 of the MMPI items were administered out of their usual order and context, one needs to ask if this would significantly affect the MMPI scores in the present study. Out-of-context (sequence) effects of MMPI items have been extensively studied and do not appear to significantly influence MMPI scale scores (Perkins and Goldberg, 1964).

A Personal Information Questionnaire (PIQ; Appendix B) was included in the study to obtain basic demographic information, and a Religious Information Questionnaire (RIQ; Appendix D) to obtain data on various aspects of the S's religious beliefs and experience.

Instructions for the RSCI, PIQ, and RIQ are found in the Appendices. Instructions for the RSCI state that the S is to write down what he believes. This is a departure from the typical instructions to Ss on sentence completion tests, which state that the S is to write down his feelings. This change was deemed justifiable for the present study since the primary focus of concern is individual beliefs.

Procedure

All tests involved in the study were group-administered. The PIQ, RSCI, and RIQ, were handed out to Ss at the beginning of the testing period. Materials were marked with numbers for the purpose of identifying the materials which belonged to the same S while at the same time preserving the S's anonymity. The first page containing the general

instructions for all parts of the testing was visible to
Ss. Ss were instructed not to turn to other pages of the
testing materials until told to do so. The more projective
RSCI was presented to Ss first, followed by other test
materials.

The attention of the Ss was directed to the chalkboard.
The examiner went over the outline on the chalkboard
(Figure 2.1) with the Ss in order to give the Ss an overall
view of what to expect and to clarify procedure. This

Part	Number of Pages
General Instructions	1
I. Personal Information Questionnaire	1
II. RSCI: Instructions	1
RSCI: 100 Items	7
III. RIQ	3

Turn in materials above.
Pick up part IV from examiner.

IV. Test Booklet	16
Answer Sheet for Test Booklet	1

Read instructions on test booklet.
Answer only the following questions:
#1-366; 373, 374, 382, 383, 396,
397, 398, 405, 406, 460, 461,
501, 502

Fig. 2.1--Chalkboard outline for administration of
survey.

approach was used in the pilot study and was found to
reduce confusion and questions regarding procedure.

The printed general instructions for the entire survey
were read aloud by the examiner with the request that the

Ss read the instructions silently at the same time. Ss were then asked if they had questions. Following the opportunity for questions, Ss were instructed to begin work on the survey materials.

When Ss had completed the PIQ, RSCI, and the RIQ, these materials were turned in to the E. The E checked the test materials for omissions. If omissions were found the S was encouraged to complete the omitted item(s). When the E had determined that all items had been completed by the S (or as many as S was willing to complete) on the PIQ, RSCI, and RIQ, the E gave to the S an MMPI test booklet and answer sheet. Only the S's number was placed on the answer sheet by E for identification.

When the S turned in his MMPI materials a quick check was made of his MMPI answer sheet for omissions (particularly the last 13 scattered items). If omissions were found, the S was encouraged to complete the omissions. If after the S had been given encouragement to complete his omissions, thirty or more omissions remained, this was considered a large number of omissions (Dahlstrom, Welsh, & Dahlstrom, 1972). If the remaining omissions were more than one out of five items, of the total number of items scored for any one of the clinical or validity scales (Dahlstrom et al., 1972) relevant to the present study, the protocol was discarded.

Scoring

Responses from the administration of the 100-item RSCI,
Form A, of the pilot study $\underline{S}s$, were used to construct a
Scoring Manual. Responses of all $\underline{S}s$ in the pilot study for
a given RSCI item were typed on one sheet. This was done
for all 100 items. Responses were numbered and typed in
order so that the particular response of a given $\underline{S}$ could be
quickly identified. Responses of all $\underline{S}s$ to each of the 100
items were examined. Responses were regarded as unhealthy
if they fit into the following guidelines.

> 1. If the response appeared to be unhealthy on
> the basis of theoretical principles in psychology and/
> or Protestant theology (see section above, "Protestant
> religious beliefs: focus of the present study"), and/or
> 2. if the scoring of a given response increased
> the positive correlation between the criterion of
> psychological maladjustment, the Mini-Mult; and the
> RSCI.

The Mini-Mult is a 71-item short form of the MMPI developed
by Kincannon (1967, 1968), and was used in the pilot study
but not in the main study. On the RSCI, responses scored
"one" indicate psychologically unhealthy religious beliefs.
Thus the higher the total score on the RSCI the higher the
maladjustment is considered to be. Responses scored
"zero," indicate the absence of psychologically unhealthy
beliefs about religion.

Scoring sheets were made listing all $\underline{S}s$ in the pilot
study and all 100 of the original sentence completion
items. Possible responses to be scored as "one" were

marked down on these scoring sheets for each S based on the two guidelines listed above. Tentative total scores on the RSCI for each pilot study S were calculated. These total RSCI scores were compared by inspection with each S's corresponding total MMPI score.

When it appeared that a S was being overscored on the RSCI in relation to his MMPI criterion score, responses which had been scored "one" for that S were reevaluated. One or more of that S's responses were changed from score "one" to score "zero." On the other hand, when a S's tentatively proposed total RSCI score was compared by inspection with his total MMPI score and it appeared that the S was being underscored, then that S's responses on the pilot study were also reevaluated. The S's responses were reexamined to see if any of his "zero" scored responses might be changed to "one." Again, both theoretical and empirical considerations in the guidelines above were taken into account. Whenever a particular response scoring was switched from either "zero" to "one" or vice versa, for either an underscored or overscored S, the list of responses for that item for all Ss was examined. If similar responses for other Ss were found which also had to be switched due to a proposed scoring revision for a particular S, then the effect on the RSCI total score for all of these Ss was assessed in making a decision as to

whether the proposed scoring revision actually resulted in
an overall improvement in the desired correlation. At a
number of stages in the scoring development, correlations
between Mini-Mult total scores and RSCI total scores were
conjectured and estimated, and at several stages these
correlations were actually calculated. The method used for
calculating the Mini-Mult total score was the same method
which was subsequently used for the MMPI in the main study
and is explained below.

Dozens of scoring systems were considered and re-
considered in the process of developing the Scoring Manual.
Thus with the two guidelines above, repeated trial and
error, and a series of estimated and calculated correlations,
increasingly firm decisions were made on which responses to
score "one" and which to score "zero." The results of
these efforts may be seen in the Scoring Manual (Appendix
E). When most of the decisions regarding which items and
which responses were to be scored, a final correlation for
this particular phase of the scoring development was
computed. Significant positive correlations were found
between the RSCI total scores and the total Mini-Mult
scores; and for Mini-Mult clinical scales 1, 2, 3, 4, 6, 7,
and 8; and for validity scale F. For these calculations
the Mini-Mult raw scores were first converted to equivalent
raw scores on the standard MMPI. No significant correlation

was found for scale 9. Clinical scales 5 and 0 were not included in the pilot or main study of the present project.

On the basis of the scoring development analysis it was decided to score 38 of the original 100 RSCI items. However, subsequently a further examination of the 38 RSCI items scored was made. As a result of this examination, five items (1, 2, 14, 66, and 75), whose scoring seemed to be on a rather weak theoretical or statistical basis, were eliminated. Two other previously discarded items (56, and 91), were added to the items to be scored because of their seeming theoretical promise. Thus a total of 35 items was selected to be scored in the main study.

On the basis of RSCI response data from the pilot study, and subsequent analysis, a Scoring Manual was constructed (Appendix E) for the 35 items selected for scoring in the main study. Scoring principles, categories, and examples are provided in the Scoring Manual to aid scorers in their scoring decisions. Since the pilot study indicated no significant sex differences ($\underline{t}_{obs}$ = 1.52, $\underline{t}_{.05}(31)$ = 2.04, $\underline{p}$ = .14) it was not considered necessary to set up separate scoring systems for male and female $\underline{S}s$.

As previously stated, the $\underline{E}$ checked all survey materials for omissions when they were handed in by $\underline{S}s$. If, however, in spite of the checking and efforts by $\underline{E}$ to get the $\underline{S}$ to complete his protocol, one to six omissions were

still found by the scorers, the protocol was prorated. If
seven or more omissions occurred in the protocol, it was
discarded. Procedures for discarding protocols with too
many nonscored items are found in the Scoring Manual
(Appendix E). If more than 5% of the Protestant protocols
had been discarded, the sample would not have been
considered random.

Statistical Treatment

Only protocols of subjects defined as Protestants
($\underline{N}$ = 103; see Chapter I) were included in the statistical
analysis of the present study.

Pearson product-moment correlations between $\underline{Ss}$' total
RSCI scores and total weighted MMPI scores (see below) were
calculated. Correlations between $\underline{Ss}$' total RSCI scores and
each of the MMPI clinical scales 1, 2, 3, 4, 6, 7, 8, and 9,
and validity scale F were also calculated. A probability
equal to or less than .05 was set as the level of sig-
nificance for each correlation.

A method for transforming MMPI T-scores into weighted
values has been adapted from Hathaway (Dahlstrom & Welsh,
1960) for the present study, to compute a total MMPI mal-
adjustment score. In their description of the Hathaway
transformation Dahlstrom and Welsh state,

> A linear, unidimensional procedure has been
> devised by Hathaway in the course of MMPI research
> which serves to summarize the degree of similarity

between two sets of personality scores. This
technique, called the code-comparison procedure (CC'),
is based upon the following approximate normalization
of the T scores on each of the MMPI clinical scales:

T-Score Value	Weight
90 or above	6
80-89	5
70-79	4
55-69	3
46-54	2
40-45	1
39 or below	0

The regular, K-corrected T scores for the reference
profile are transformed into these single-digit
values. Generally the scores on scale 5 (Mf) are not
used in these computations, only eight of the basic
clinical scales being retained [p. 259].

To test the potency of traditional measures of

religiosity (church membership, church attendance frequency,

prayer frequency, Bible reading frequency) to predict the

MMPI criteria (MMPI total score, clinical scales 1, 2, 3, 4,

6, 7, 8, and 9, and validity scale F), a multiple regression

correlation technique based on an analysis of variance

rationale (Overall & Klett, 1972, pp. 425-430) was employed.

The between-groups variance (regression variance) divided by

the within-group variance (residual variance) yields an $\underline{F}$

ratio which was used to test the probability of significant

differences. A probability equal to or less than .05 was

set as the level of significance for each multiple

regression correlation ($\underline{F}$ ratio).

A two-way analysis of variance (two-way to take into

account the sex variable) was used to compare MMPI FK

(Freshmen norms, K-corrected T scores) and MMPI AK (Adult

norms, K-corrected T scores) total weighted T-score means among the given categories within each of the four traditional measures of religiosity. The Newman-Keuls procedure was used to test for significance among means. A probability equal to or less than .05 was set as the level of significance for each F test and individual comparison between means.

A two-way analysis of variance (two-way to take into account the sex variable) was used to compare RSCI raw score means among the given categories within each of the four traditional measures of religiosity. Tests for significance followed the same procedure described above for MMPI FK and MMPI AK total weighted T score means.

The most frequently used method for establishing reliability for sentence completion tests has been interrater or interscorer reliability (Rotter & Rafferty, 1950; Rohde, 1957; Lanyon, 1970, 1972; Mosher, 1961; Churchill & Crandall, 1955; Stotsky & Weinberg, 1956; Rychlak, Mussen, & Bennett, 1957; Rozynko, 1959). In the present study three scorers with master's degrees in clinical psychology scored the RSCI protocols. In order to test the reliability of the scoring system, the three scorers independently scored the same 21 protocols chosen by random numbers from the total sample of 105 (two Ss were later discarded by the scorers). For the 21 protocols

which were used to determine interscorer reliability, the following procedure was observed:

      1. Responses to the 35 items to be scored were typed on sheets separate from the protocols themselves to avoid scorer halo effects.

      2. Responses for each item were typed in random order so that the scorer did not know which combination of responses belonged to the same S, to avoid scorer halo effects.

      3. Responses were reproduced in the typing as the S had recorded them, e.g. misspelling, grammatical errors, etc.

      4. The total RSCI scores of Ss were used to calculate interscorer reliability.

For the purpose of the present study an interscorer reliability of .70 was set as the minimum standard for establishing satisfactory reliability for the RSCI (Helmstadter, 1964). An analysis of variance procedure outlined by Winer (1971, pp. 283-296) was used to estimate interscorer reliability for the present study.

Since each of the three scorers scored 21 of the protocols, there were three scores for each of the 21 Ss. To test the hypotheses of the present study, an average of the three total scores for each of these 21 Ss was used (rounded to the closest whole number).

The other 82 protocols were randomly divided among the scorers for scoring. Thus each of the scorers scored the same 21 protocols used for determining reliability, and in addition, each scorer scored 28 protocols independently of the other two scorers. Scorers had no knowledge of the MMPI scores of Ss.

Test-retest reliability is generally not considered satisfactory for sentence completion tests (Stephens, 1960; Goldberg, 1965). Split-half reliability and other tests of internal consistency were not considered appropriate for the RSCI, since many of the items and item responses are regarded as heterogenous.

CHAPTER III

RESULTS

Interscorer Reliability

Interscorer reliability for the three scorers combined was .83. The reliability coefficient between scorers 1 and 2, was .56; between scorers 2 and 3, .76; and between scorers 1 and 3, .66.

Validity

Hypothesis 1: RSCI and MMPI Total Score

The correlations in Tables 3.1 and 3.2 between the total RSCI scores, and the MMPI FK and AK total weighted scores, indicate that Hypothesis 1 of the present study is supported for males and females combined, for females, but not for males. The total weighted MMPI score is tentatively regarded as a rough index of "general adjustment."

Hypothesis 2: RSCI and MMPI Scales 1-4, 6-8

An inspection of Tables 3.1 and 3.2 reveals a significant positive correlation between RSCI scores, and some of the individual MMPI scales. Hypothesis 2 was supported for MMPI scales 2, 4, 6, 7 (MMPI Freshmen norms only), and 8, when all Ss were combined into one group. Thus four (five for the Freshmen norms) of the eight parts of Hypothesis 2 are supported for the entire data.

TABLE 3.1

CORRELATIONS BETWEEN THE RELIGIOUS SENTENCE COMPLETION INVENTORY, AND THE
MINNESOTA MULTIPHASIC PERSONALITY INVENTORY K-CORRECTED T SCORES,
UNIVERSITY OF NORTH CAROLINA FRESHMEN NORMS

		Males and Females[a]			Males[b]			Females[c]	
		Mean	SD[d]	r[e]	Mean	SD[d]	r[e]	Mean	SD[d]	r[e]
MMPI	FK	19.39[f]	6.60[f]	.28**	21.18[f]	6.52	.13	17.70	6.27	.41**
	L	49.84	11.35	.06	49.88	12.50	.16	49.81	10.27	-.09
	F	59.53	17.69	.17	63.96	22.40	.14	55.36	10.23	.14
	K	42.68	15.97	-.04	48.98	10.79	-.09	36.74	17.80	-.14
	1	56.46	12.64	.16	58.44	14.41	-.02	54.58	10.51	.42**
	2	53.40	11.36	.25**[g]	53.98	11.65	.21	52.85	11.16	.30*
	3	53.66	10.97	.14	55.18	11.58	-.01	52.23	10.26	.29*
	4	55.56	11.15	.24*	56.24	9.01	.19	54.92	12.90	.30*
	6	53.67	13.57	.33***	59.00	13.75	.29*	48.64	11.39	.31*
	7	57.18	11.85	.19*	59.30	12.16	.05	55.19	11.31	.34*
	8	60.13	16.21	.27**	65.04	18.00	-.13	55.49	12.85	.42**
	9	58.85	11.96	-.01	59.66	12.65	-.08	58.09	11.35	.06
RSCI		7.73[h]	3.49[h]	.	8.32[h]	3.90[h]	.	7.17[h]	2.99[h]	.

*p < .05
**p < .01

[a]N = 103, df = 101, r.05 = .19, r.01 = .25
[b]N = 50, df = 48, r.05 = .28
[c]N = 53, df = 51, r.05 = .27, r.01 = .35
[d]SD = Standard deviation

Source of MMPI Freshmen Norms: Dahlstrom, Welsh, and Dahlstrom, 1972, pp. 382-383

[e]r = Pearson product-moment correlations

[f]Total weighted score, combines MMPI scales 1-4, 6-9

[g]See text

[h]Raw scores

TABLE 3.2

CORRELATIONS BETWEEN THE RELIGIOUS SENTENCE COMPLETION INVENTORY, AND THE MINNESOTA MULTIPHASIC PERSONALITY INVENTORY K-CORRECTED T SCORES, MINNESOTA ADULT NORMS

		Males and Females[a]			Males[b]			Females[c]		
		Mean	SD[d]	r[e]	Mean	SD[d]	r[e]	Mean	SD[d]	r[e]
MMPI	AK	22.17[f]	5.40[f]	.27**	23.06[f]	5.65[f]	.15	21.32[f]	5.07[f]	.38**
	L	48.00	6.55	.08	49.00	7.16	.15	47.06	5.83	-.08
	F	60.91	13.29	.16	62.52	15.55	.15	59.40	10.67	.14
	K	51.75	8.80	-.06	53.68	9.46	-.09	49.92	7.78	.11
	1	53.99	9.02	.16	55.24	10.09	-.03	52.81	7.78	.42**
	2	53.99	10.94	.26**	55.16	11.83	.21	52.89	10.02	.30*
	3	56.79	8.12	.13	57.36	8.53	.00	56.25	7.77	.29*
	4	61.44	10.99	.24*	62.54	9.20	.19	60.40	12.44	.29*
	6	58.79	11.20	.31***	60.52	12.04	.28*	57.15	10.19	.30*
	7	61.28	11.16	.18	62.08	12.05	.05	60.53	10.31	.34*
	8	64.61	15.34	.26**	66.76	17.23	.14	62.58	13.17	.42**
	9	65.48	12.10	.00	66.54	12.26	-.08	64.47	11.97	.07
RSCI		7.73[g]	3.49[g]		8.32[g]	3.90[g]		7.17[g]	2.99[g]	

Source of MMPI Adult Norms: Hathaway and McKinley, 1967
*p < .05
**p < .01

[a]N = 103, df = 101, r.05 = .19, r.01 = .25
[b]N = 50, df = 48, r.05 = .28
[c]N = 53, df = 51, r.05 = .27, r.01 = .35
[d]SD = Standard deviation

[e]r = Pearson product-moment correlations

[f]Total weighted score, combines MMPI scales 1-4, 6-9

[g]Raw scores

For females by themselves significant positive correlations were found between RSCI total scores and MMPI scales 1, 2, 3, 4, 6, 7, and 8 (Tables 3.1 and 3.2). For males, however, a significant positive correlation was found between RSCI scores and MMPI scale 6 only (Tables 3.1 and 3.2). Thus seven of the eight parts of Hypothesis 2 were supported for females (scale F unsupported), but only one of the eight parts of Hypothesis 2 was supported for males.

The results above were those found for the total sample (N = 103: male N = 50, female N = 53). When inconsistent MMPI TR Index female Ss (N = 4) were eliminated from the total female sample, there were no changes in the significant correlations found for the seven MMPI scales in the total female sample. However, when inconsistent TR Index male Ss (N = 5) were eliminated from the total male sample, MMPI scale 6 was found not to be significant (see below).

Hypothesis 2: RSCI and MMPI Scale 9

No significant correlations were found between the total RSCI scores, and MMPI scale 9 for males, or females, or for males and females combined (Tables 3.1 and 3.2). These findings do not contradict the portion of Hypothesis 2 which states that no significant correlation would be found between the RSCI, and MMPI scale 9.

Hypothesis 2: RSCI and MMPI Scale F

No significant correlations were found between the RSCI scores, and MMPI validity scale F, for males, or females, or for males and females combined (Tables 3.1 and 3.2). These findings fail to support that portion of Hypothesis 2 which states that a significant positive correlation would be found. This was the only portion of Hypothesis 2 which was not supported for females.

Sex Differences

The sex differences found in the present study (Tables 3.1 and 3.2) were not anticipated since, as previously stated, no significant differences were found between RSCI means of males (8.22), and females (6.63) in the pilot study (t_{obs} = 1.52, $t_{.05}(31)$ = 2.04, p = .14). In fact, in the main study no significant difference was found between the RSCI means of males (8.32), and of females (7.17) (t_{obs} = 1.69, $t_{.05}(101)$ = 1.98, p = .10). However, as a further check on possible sex differences, correlations were computed separately for males and for females on the main study data. The differences between males and females which are found in Tables 3.1 and 3.2 were discovered. Thus sex differences do not reveal themselves when means are compared. Differences are found when correlations of males and females are computed separately.

A variance sex difference was also discovered. According to Bartlett's test, there were statistical grounds for accepting the assumption of homogeneity of variance for males and females in the pilot study ($x^2 = .06$, $\underline{p} = .97$), but not in the main study ($x^2 = 8.02$, $\underline{p} = .02$).

Other Subgroup Breakdowns

Correlations for various other subgroup breakdowns were computed to investigate possible differences (church member, $\underline{N} = 79$, nonmember, $\underline{N} = 24$; race: Caucasian, $\underline{N} = 84$, Black, $\underline{N} = 17$; denomination: Baptist, $\underline{N} = 42$, Methodist, $\underline{N} = 11$, Church of Christ, $\underline{N} = 9$, other Protestant, $\underline{N} = 13$, none, $\underline{N} = 28$; present Protestant, $\underline{N} = 74$, former Protestant, $\underline{N} = 29$). The resulting data did not appear to provide any convincing evidence (in many cases this was due to the small $\underline{N}$ of the subgroups) that the RSCI was more or less valid for any particular subgroup. For example, the RSCI did not appear to be more valid for those $\underline{S}$s who indicated that they were at the present Protestant than for those who indicated that they were formerly but not at the present Protestant. Thus no breakdowns of the subgroups listed above are recorded in the present study.

Notes on Tables 3.1 and 3.2

To better understand the validity data found in Tables 3.1 and 3.2, some of the features and background information

regarding these two tables are noted in this section. Both
similarities and differences are found when Tables 3.1 and
3.2 are compared. The two tables are similar in their
general format. However, in Table 3.1 MMPI norms for
University of North Carolina Freshmen were used, whereas in
Table 3.2 norms for Minnesota Adults were employed. In both
tables the data is derived from the same source: the raw
scores on the RSCI and the raw scores on the MMPI criteria
of the 103 Ss who participated in the main study of the
present project. The notation MMPI FK in Table 3.1 indicates
total weighted scores derived from the Freshmen norms and
K-corrected T scores. The notation MMPI AK in Table 3.2
indicates MMPI total weighted scores derived from the Adult
norms and K-corrected T scores. The method for calculating
MMPI FK and MMPI AK is the same method described in Chapter
II. Note that although MMPI total weighted scores are
derived from T scores, the MMPI total score means and
standard deviations (Tables 3.1 and 3.2) are different from
MMPI individual scale standard score means of 50 and
deviations of 10.

In both Tables 3.1 and 3.2, MMPI K-corrected T scores
were used for all calculations involving the individual
MMPI validity and clinical scales. T scores were used for
all Ss, since males and females receive different T scores
for the same raw scores on five of the MMPI scales relevant
to the present study (scales 1, 2, 3, 7, and 8). For

example, a male and female may both obtain a raw score of 37 on MMPI scale 7, but the T score for the female would be 69, whereas the T score for the male would be 79. The differences between T scores of males and females vary as one moves up and down a given scale. However, differences are usually smaller than the 10 T-score points difference cited in the example above. Therefore, since males and females receive different T scores for the same raw score on five of the MMPI scales, it was necessary to use T scores instead of raw scores in calculating the combined male and female data; otherwise these correlations would have been spurious.

In both Tables 3.1 and 3.2, MMPI validity scales L and K are included even though they are not directly involved in any of the hypotheses of the study. MMPI validity scales are included in the tables because this information influences the interpretation of the other scales and are also of general interest.

In regard to the particular correlations which were found to be significant, Table 3.1 (Freshmen norms) and Table 3.2 (Adult norms) are identical, with two exceptions. For males and females combined, MMPI clinical scale 7 is significant for the Freshmen norms but just short of significance for the Adult norms. Also, for males and females combined, MMPI clinical scale 2 is significant at the .05 level for the Freshmen norms but technically not

significant at the .01 level, as is the case for the Adult norms. When the correlation for scale 2 for males and females is rounded to two places, the correlation would seem to be significant, but when the ten-thousandths place of the correlation is considered or when the correlation to four places is transformed into a t score (Hays, 1973, p. 647) the correlation is found to be significant at the .05 level for the Freshmen norms but not at the .01 level, as is the case for the Adult norms.

Sample MMPI Means and Standard Deviations

In examining Tables 3.1 and 3.2 one notes that most of the MMPI validity and clinical scale means tend to be above the standard mean of 50, and some of the standard deviations seem to be large (above the standard standard deviation of 10). Some of these deviations from the mean may be expected due to chance. Nevertheless, when the mean of the means is calculated it is found to be above 50 (Table 3.3) with and without inconsistent TR Index Ss (see below). Inspection of Table 3.3 reveals less deviation in the mean of means for the Freshmen norms than for the Adult norms. Since 72 of the 103 Ss (70%) who participated in the present study were freshmen, it is logical to expect that the Freshmen norms (Table 3.1) would more closely fit the sample than the Adult norms (Table 3.2). However, when the

TABLE 3.3

COMBINED MMPI INDIVIDUAL SCALES, WITH AND WITHOUT
INCONSISTENT MMPI TR INDEX SUBJECTS

	Males and Females		Males		Females	
	With TR $\underline{S}$s	Without TR $\underline{S}$s	With TR $\underline{S}$s	Without TR $\underline{S}$s	With TR $\underline{S}$s	Without TR $\underline{S}$s
Freshmen						
Mean of Means	54.63	53.48	57.24	55.66	52.17	51.48
SD	13.16	12.35	13.54	12.51	11.82	11.31
$\underline{N}$	103	94	50	45	53	49
Adult						
Mean of Means	57.91	56.91	59.22	57.89	56.68	56.01
SD	10.68	9.96	11.40	10.47	9.81	9.35
$\underline{N}$	103	94	50	45	53	49

individual standard deviations (Tables 3.1 and 3.2) and the
means of the standard deviations (Table 3.3) for the 11 MMPI
scales are examined, it is observed that the Adult norms
rather than the Freshmen norms seem to more closely fit the
sample (see below for further notes on the standard
deviations).

In an attempt to determine why the MMPI scale means of
means in the present study repeatedly deviated above 50, an
examination was made of the protocols of $\underline{S}$s ($N = 29$, male
$N = 18$, female $N = 11$) with an MMPI F scale raw score ≥ 10
(T score 70 for Freshmen, 66 for Adult norms). Large F
scores suggest the possibility that a $\underline{S}$ has responded
randomly or carelessly on the MMPI. To check on whether $\underline{S}$s

with F scale raw scores ≥10 were responding randomly or
carelessly, these protocols were scored on the MMPI TR (Test-
retest) Index developed by Buechley and Ball (1952). There
are 16 items on the MMPI that are repeated in the group form
(regular test booklet), which was the form used in the present
study. Subjects answer the same question twice in two
different locations in the total item sequence. "Buechley
and Ball (1952) first pointed out how this duplication could
be employed systematically to furnish a check on the subject's
consistency within one test session [Dahlstrom et al., 1972,
p. 141]." The duplicated items are regarded as a Test-
retest (TR) even though they are scored from a single
administration of the MMPI.

To make the practical problem of hand scoring easier,
Buechley and Ball (1952) scored only 14 of the 16 duplicated
items on the MMPI in developing their TR Index scale. Raw
scores represent the number of items to which a $\underline{S}$ has
responded inconsistently out of the total of 14. Buechley
and Ball (1952) established raw scores of 0-3 as acceptable
levels of response inconsistency and scores of four and above
as indicative of questionable response reliability
(Dahlstrom et al., 1972).

In the present study sample it was found that out of the
29 $\underline{S}$s who had F raw scores ≥10, five males and four females
had TR Index raw scores of four or above. When these nine
$\underline{S}$s were eliminated from the total sample (N = 103),

individual MMPI means decreased approximately 4.5 on the F

scale and 3.5 on scale 8 for males, and 1.5 and 2.0 on these

same respective scales for females. It is on these two

scales that random responding is most likely to result in

scores that are relatively larger than on other scales

(Dahlstrom et al., 1972). However, random responding

increases the probability that validity and clinical scales

(? scale excepted) other than the F and 8 scale will also

be above the standard mean of 50, although not as much as on

these two latter scales. The removal of the inconsistent TR

subjects seems to have affected the sample data in accordance

with the pattern of random responding. Other MMPI scale

means also decreased from approximately 0.5 to 2.0 points for

males. Female means on these other scales decreased as much

as 1.4 and several increased no more than 0.4 (approximate

figures). Thus when one compares the means of the MMPI

scales it is seen that elimination of the inconsistent TR Ss

results in sample means which are for the most part closer

to the standard means of 50 on both the Freshmen and Adult

norms. This same trend is found for the mean of means

(Table 3.3).

Explanations other than random responding apparently

account for the deviation of the sample mean and standard

deviation of the K scale for females on the Freshmen norms

(Table 3.1). The Adult norm sample mean and standard

deviation appear to be closer to expected values. The

larger Freshmen norm deviations on the K scale may have occurred because it was necessary to estimate 19 of the T scores for females on K since no T scores for the 19 females with low K raw scores were provided by the Freshmen norms. It was not necessary to estimate any of the T values for K for the Adult norms. The Freshmen norm T scores for K for the 19 females may have been estimated too low by the E of the present study.

There is another tenable explanation for the mean and standard deviation of K deviation on the Freshmen norms. An inquiry into how the Freshmen norms were derived revealed that the female portion of the norms was based on only 129 Ss, whereas the male norms were based on 1,537 Ss (Dahlstrom, personal communication, 1974). "The [range of] K scale values for the women may be somewhat curtailed because it is a much smaller sized group [Dahlstrom, personal communication, 1974]." This large discrepancy between the number of male and female Ss was due to the fact that most of the women who attended the University of North Carolina as freshmen in the fall of 1971, when the data for the Freshmen norms were collected, attended the women's college branch at Greensboro, whereas only a small number were in attendance on the main campus at Chapel Hill, where the data were collected (Dahlstrom, personal communication, 1974).

Thus the greater deviation of the mean and standard deviation for K on the Freshmen norms as compared with the

Adult norms may be due to inaccurate estimations of the 19 female K T scores by the E and/or the small sample upon which the MMPI Freshmen norms for females are based.

One of the male Ss raw scores for F on the MMPI was quite high (40), and it was necessary to estimate his T score for both the Freshmen (125) and Adult norms (115). However, this one estimation does little to explain either the large means or standard deviations in the total sample. This S was eliminated in the calculations where inconsistent male TR Ss were removed.

Elimination of all nine inconsistent TR Ss resulted in decreasing not only the means on the MMPI scales but also some of the larger standard deviations found in the total sample (Table 3.3). On the Freshmen norm the standard deviation decreased and moved closer to the norm of 10 by approximately five points on the F scale, by three on scale 8 for males, and by approximately 2.0 and 2.5 on these same respective scales, for females. Similar decreases in standard deviations were found for the Adult norms when inconsistent TR Ss were eliminated. Thus when inconsistent TR Ss are eliminated, both means and standard deviations of the remaining subsample(s) are closer to standard standard deviations and standard means of both Freshmen and Adult norms.

As previously noted, when means are compared, the Freshmen norms appear to differ less from the sample than

the Adult norms. In this respect the Freshmen norms may better represent the present sample. This cannot be stated with certainty, however, since it is possible that the higher means on the Adult norms may reflect the actual maladjustment level of the sample. The Adult norms probably do better represent the sample on scale K for females (see above). The larger standard deviation for males on the F scale for the Freshmen norms compared with the Adult norms suggests that the Adult norm may better fit the sample than the Freshmen norms on this particular scale for males.

The Adult norm data (Table 3.2) is included in the present study for purposes of comparison with the Freshmen norms, and because in some respects the Adult norm may better represent the present sample. Furthermore, the Adult norms are widely employed by researchers and clinicians and are useful when comparisons are made in relation to the large accumulation of data and interpretation which uses the Adult norm framework (Dahlstrom et al., 1972).

Hypothesis 2: RSCI and MMPI Scales, Correlational Sketches

The following are generalized adjectival descriptions summarizing the significant correlations between the RSCI, and MMPI scales for males and females. These summaries are based on research studies summarized by Dahlstrom, Welsh, and Dahlstrom (1972).

High males.--College males who scored two standard deviations or above (16.12 or above) the mean score on the

RSCI would tend to be high (70 T score and above) on MMPI scale 6.

These males are described by others as sensitive, emotional, and prone to worry. They also tend to be kind, affectionate, softhearted, sentimental, peaceable, cooperative, courageous, grateful, and have wide interests.

These males described themselves as trustful, amorous and worldly.

High-point males.--No descriptions for college or normal males were provided by Dahlstrom et al., (1972).

Low-point males.--No descriptions for college or normal males were provided by Dahlstrom et al., (1972).

Low males.--College males who scored one standard deviation or below (4.42 and below) the mean on the RSCI would tend to be low (T score of 40 and below) on MMPI scale 6.

These males are described by others as balanced, cheerful, self-distrusting, and conscienceless.

They described themselves as orderly, and mixing well socially.

High females.--College females who scored two standard deviations or above (13.15 or above) the RSCI mean would tend to be high (70 T score or above) on at least one of the

following MMPI scales: 1, 2, 3, 4, 6, 7, or 8. Therefore, these females may be characterized by a large number of adjectives.

These females tend to be described by others as frank, high-strung, sensitive, prone to worry, emotional, soft-hearted, good tempered, modest, responsive, and enthusiastic. They are also characterized as cheerful, conscientious, cooperative, courageous, easygoing, intuitive, practical, orderly, kind, nonaggressive, reasonable, shy, talkative, and verbal. In addition, they are said to be adaptable, assertive, and having general aesthetic interests.

These women described themselves as dissatisfied, high-strung, prone to worry, emotional, frank, fair-minded, sensitive, shy, and talkative. They also described them-selves as affectionate, generous, facing-life, courageous, adventurous, enterprising, enthusiastic, deliberate, modest, naive, idealistic, peaceable, sociable, and talkative.

High-point females.--College females who scored .4 standard deviations or above (8.37 or above) the mean of the RSCI would tend to have a high point on one of the following MMPI scales: 1, 2, 3, 4, 6, 7, or 8. These females may be characterized by a broad spectrum of adjectives.

These females tend to be described by others as affected, arrogant, apathetic, moody, undependable,

frivolous, dependent, shrewd, clever, seclusive, secretive, shy, and submissive. They were also described as high-strung, irritable, incoherent, and flattering. In addition, they were said to be adaptable, clear-thinking, courageous, humble, kind, sociable, peaceable, poised, quiet, serious, orderly, trustful, sophisticated, wise, worldly, religious, and as having general aesthetic interests.

Descriptions of these women significantly avoided such terms as clever, alert, aggressive, enterprising, energetic, cheerful, friendly, talkative, grateful, conventional, practical, idealistic, impatient, rebellious, undependable, independent, self-confident, mature, individualistic, partial, self-centered, self-controlled, and sensitive.

These women described themselves as affected, boastful, show-off, aloof, selfish, moody, gloomy, depressed, hostile, rebellious, pugnacious, ruthless, unself-controlled, eccentric, fickle, dependent, timid, worrying, submissive, shy, secretive, self-dissatisfied, self-distrusting, popular, and as having many physical complaints. They also described themselves as sociable, serious, softhearted, trustful, quiet, conventional, contented, sentimental, naive, and as having aesthetic interests.

Self-descriptions of these women significantly avoided such terms as practical, adaptable, aggressive, easily bored, friendly, independent, lively, loyal, self-confident, alert, boastful, cheerful, clear-thinking, conceited,

contented, courageous, decisive, easygoing, emotional,
energetic, kind, laughterful, natural, peaceable, perse-
vering, poised, show-off, shy, suspicious, talkative,
unrealistic, and worldly.

Low-point females.--College females who scored .4
standard deviations or below (5.97) the mean on the RSCI
would tend to have a low point on one of the following MMPI
scales: 1, 2, 3, 4, 6, 7, or 8. Thus these females may be
characterized by a large number of adjectives.

These women tend to be described by others as humble,
thoughtful, idealistic, and deliberate. They were also
described as inflexible, lacking heterosexual interest,
having poor rapport with others, seclusive, socially with-
drawn, shy, timid, awkward, self-dissatisfied, and self-
distrusting.

Descriptions of these women significantly avoided such
terms as sociable, worldly, cheerful, laughterful, high-
strung, aggressive, adaptable, and unemotional.

These women described themselves as cooperative,
modest, self-effacing, and relaxed. They also described
themselves as aggressive, cynical, hardhearted, rebellious,
rough, secretive, and shrewd.

Self-descriptions of these women significantly avoided
the term sentimental.

Low females.--College females who scored one standard deviation or below (4.18 or below) the mean on the RSCI would tend to be low (T score 40 or below) on at least one of the following MMPI scales: 1, 2, 3, 4, 6, 7, and 8.

These women tend to be described by others as balanced, good tempered, temperate, mature, peaceable, reasonable, trustful, conventional, facing life, cheerful, serious, and modest. They were also described as having general aesthetic interests.

These women described themselves as balanced, trustful, sensitive, and as having wide interests. They also described themselves as contented, facing life, modest, peaceable, placid, relaxed, self-confident, self-controlled, alert, reverent, persevering, loyal, wise, and as having home and family interests. They also described themselves as inflexible.

Hypothesis 3: Traditional Measures of Religiosity

Hypothesis 3 states that the RSCI is a better predictor of the MMPI criteria (total weighted maladjustment score, clinical scales 1, 2, 3, 4, 6, 7, 8, and validity scale F) than are traditional measures of religiosity (church membership, church attendance, prayer frequency, and Bible reading frequency).

Hypothesis 3: Traditional Measures of Religiosity and the
RSCI as Predictors of the MMPI Criteria, Multiple Regression

To test the potency of traditional measures of
religiosity to predict the MMPI criteria, a multiple
regression correlation technique based on an analysis of
variance rationale (Overall & Klett, 1972, pp. 425-430) was
employed. This method involves breaking a single variable
into two or more dummy variables (e.g., the single variable
church attendance was broken down into dummy variables
consisting of the different categories of church attendance:
(1) more than once a week, (2) once a week, (3) once or
twice a month, (4) very seldom, (5) never). Each S is
assigned a number for each category or dummy variable
(except for the last category, which is treated in a special
way). For example, a S who indicated that he attended
church once or twice a month would receive a "one" in
category 3, and zeros in categories 1, 2, and 4. A S who
belonged to category 5 receives a -1 in categories 1, 2, 3,
and 4. In all cases the last category (category 5 in the
case of church attendance) was omitted, received no score,
but was indicated by a -1 in each of the other categories
which were included. From the standpoint of analysis of
variance each category was regarded as a group. The between-
group variance (regression variance) divided by the within-
group variance (residual variance) yields an F ratio which
was used to test the hypothesis and to determine the
probability of significant difference.

Tables 3.4, 3.5, and 3.6 show the results of the multiple regression analysis regarding the potency of traditional measures to predict the MMPI criteria, for males and females, males, and females, respectively. Note that both the multiple $\underline{R}$ and the multiple $\underline{R}_c$ (multiple $\underline{R}$ corrected for shrinkage) are given. Note also that the test of significance is an $\underline{F}$ test, which indicates whether a given multiple $\underline{R}$ significantly differs from a correlation which might occur due to chance (McNemar, 1969, pp. 318-320).

Only one significant multiple $\underline{R}$ is found in Tables 3.4-3.6. Male church attendance did significantly correlate with MMPI validity scale L. However, scale L was not relevant to Hypothesis 3, and furthermore this one statistically significant $\underline{R}$ may have occurred due to chance.

No significant multiple regression correlations were found (Tables 3.4-3.6) which were relevant to Hypothesis 3. Thus of the 108 predictions none were found to be significantly different between traditional measures of religiosity predictors (church membership, church attendance, prayer frequency, and Bible reading frequency) and the MMPI criteria. In contrast to these traditional measures of religiosity, the RSCI was able to predict 14 of the 27 MMPI criteria predictions, according to the results reported above regarding Hypothesis 1 and 2. Thus Hypothesis 3, which states that the RSCI is a better predictor of the MMPI criteria than is any one of the four traditional measures

TABLE 3.4

MULTIPLE REGRESSION CORRELATIONS BETWEEN TRADITIONAL MEASURES OF RELIGIOSITY AND THE MINNESOTA MULTIPHASIC PERSONALITY INVENTORY: FOR MALES AND FEMALES

	Church Membership				Church Attendance				Prayer Frequency				Bible Frequency			
	R^a	R_c^b	F	p	R^a	R_c^b	F	p	R^a	R_c^b	F	p	R^a	R_c^b	F	p
MMPI FK[c]	.09	.00	0.44	.65	.16	.00	0.50	.77	.06	.00	0.08	1.00	.22	.11	1.31	.27
MMPI AK[d]	.06	.00	0.21	.81	.18	.00	0.64	.67	.08	.00	0.13	.99	.23	.11	1.34	.26
L	.04	.00	0.09	.92	.28	.18	1.71	.14	.14	.00	0.38	.86	.14	.00	0.52	.72
F	.17	.09	1.46	.24	.19	.00	0.73	.60	.31	.22	2.05	.08	.06	.00	0.10	.98
K	.09	.00	0.39	.68	.20	.00	0.77	.57	.18	.00	0.65	.67	.08	.00	0.14	.97
1	.04	.00	0.10	.91	.18	.00	0.63	.68	.21	.00	0.92	.47	.13	.00	0.40	.81
2	.04	.00	0.09	.92	.18	.00	0.69	.64	.13	.00	0.33	.90	.20	.03	1.02	.40
3	.03	.00	0.04	.96	.14	.00	0.41	.84	.17	.00	0.60	.70	.13	.00	0.41	.80
4	.00	.00	0.00	1.00	.20	.00	0.80	.55	.24	.09	1.19	.32	.26	.17	1.75	.14
6	.23	.19	2.87	.06	.10	.00	0.19	.97	.08	.00	0.13	.98	.15	.00	0.60	.66
7	.02	.00	0.01	.99	.12	.00	0.30	.91	.16	.00	0.50	.73	.19	.00	0.91	.46
8	.15	.06	1.16	.32	.21	.00	0.87	.51	.16	.00	0.54	.75	.17	.00	0.73	.57
9	.17	.09	1.43	.24	.26	.14	1.42	.22	.13	.00	0.35	.88	.13	.00	0.43	.79

*p < .05

[a] R = Multiple regression correlation coefficient

[b] R_c = Multiple regression correlation coefficient, corrected for shrinkage

[c] MMPI FK = MMPI Freshmen norms, K-corrected T scores, total weighted scores, combines MMPI scales 1-4, 6-9

[d] MMPI AK = MMPI Adult norms, K-corrected T scores, total weighted scores, combines MMPI scales 1-4, 6-9

TABLE 3.5

MULTIPLE REGRESSION CORRELATIONS BETWEEN TRADITIONAL MEASURES OF RELIGIOSITY
AND THE MINNESOTA MULTIPHASIC PERSONALITY INVENTORY: FOR MALES

	Church Membership				Church Attendance				Prayer Frequency				Bible Frequency			
	R^a	R_c^b	F	p	R^a	R_c^b	F	p	R^a	R_c^b	F	p	R^a	R_c^b	F	p
MMPI FK[c]	.11	.00	0.29	.75	.22	.00	0.45	.81	.36	16	1.27	.29	.34	.19	1.45	.23
MMPI AK[d]	.09	.00	0.19	.82	.29	.00	0.55	.73	.32	.03	1.01	.42	.34	.19	1.46	.23
L	.17	.00	0.68	.51	.47	.36	2.46*	.05*	.25	.00	0.61	.69	.39	.27	1.97	.12
F	.14	.00	0.47	.63	.25	.00	0.58	.71	.41	.27	1.79	.14	.19	.00	0.44	.78
K	.00	.00	0.00	1.00	.33	.07	1.05	.40	.23	.00	0.47	.79	.07	.00	0.05	1.00
1	.06	.00	0.09	.92	.28	.00	0.78	.57	.42	.28	1.84	.12	.18	.00	0.37	.83
2	.06	.00	0.10	.91	.25	.00	0.60	.70	.37	.19	1.36	.26	.29	.06	1.05	.39
3	.05	.00	0.06	.94	.25	.00	0.57	.72	.41	.28	1.82	.13	.12	.00	0.18	.95
4	.06	.00	0.08	.93	.13	.00	0.16	.98	.14	.00	0.17	.97	.23	.00	0.63	.64
6	.23	.12	1.34	.27	.24	.00	0.54	.75	.13	.00	0.14	.93	.34	.19	1.45	.23
7	.03	.00	0.03	.97	.28	.00	0.76	.58	.35	.16	1.26	.30	.31	.12	1.17	.34
8	.09	.00	0.21	.81	.32	.00	0.98	.44	.31	.00	0.94	.46	.32	.15	1.27	.30
9	.15	.00	0.57	.57	.27	.00	0.69	.63	.24	.00	0.53	.75	.26	.00	0.84	.51

*p< .05

[a]R = Multiple regression correlation coefficient

[b]R_c = Multiple regression correlation coefficient, corrected for shrinkage

[c]MMPI FK = MMPI Freshmen norms, K-corrected T scores, total weighted scores,
combines MMPI scales 1-4, 6-9

[d]MMPI AK = MMPI Adult norms, K-corrected T scores, total weighted scores,
combines MMPI scales 1-4, 6-9

TABLE 3.6

MULTIPLE REGRESSION CORRELATIONS BETWEEN TRADITIONAL MEASURES OF RELIGIOSITY AND THE MINNESOTA MULTIPHASIC PERSONALITY INVENTORY: FOR FEMALES

	Church Membership				Church Attendance				Prayer Frequency				Bible Frequency			
	R^a	R_c^b	F	p	R^a	R_c^b	F	p	R^a	R_c^b	F	p	R^a	R_c^b	F	p
MMPI FK^c	.08	.00	0.16	.85	.25	.00	0.63	.67	.24	.00	0.60	.70	.28	.02	1.01	.41
MMPI AK^d	.07	.00	0.12	.89	.27	.00	0.76	.59	.19	.00	0.36	.87	.29	.00	0.73	.58
L	.16	.00	0.62	.54	.24	.00	0.59	.71	.18	.00	0.33	.89	.22	.00	0.60	.66
F	.05	.00	0.07	.93	.38	.23	1.58	.18	.19	.00	0.36	.87	.16	.00	0.32	.86
K	.01	.00	0.00	1.00	.20	.00	0.38	.86	.27	.00	0.75	.59	.18	.00	0.39	.81
1	.13	.00	0.42	.66	.35	.17	1.30	.28	.26	.00	0.66	.65	.25	.00	0.79	.54
2	.01	.00	0.01	.99	.18	.00	0.32	.90	.27	.00	0.73	.60	.24	.00	0.75	.56
3	.24	.14	1.52	.23	.33	.13	1.17	.34	.27	.00	0.72	.62	.19	.00	0.47	.76
4	.08	.00	0.18	.83	.28	.00	0.78	.57	.38	.24	1.63	.17	.29	.10	1.13	.35
6	.03	.00	0.03	.97	.23	.00	0.52	.76	.31	.00	0.99	.44	.35	.22	1.67	.17
7	.20	.04	1.05	.36	.21	.00	0.44	.82	.23	.00	0.51	.77	.26	.00	0.87	.49
8	.07	.00	0.12	.89	.27	.00	0.72	.61	.22	.00	0.48	.79	.20	.00	0.51	.73
9	.16	.00	0.66	.52	.29	.00	0.89	.50	.22	.00	0.47	.80	.17	.00	0.37	.83

$*p < .05$

$^a R$ = Multiple regression correlation coefficient

$^b R_c$ = Multiple regression correlation coefficient, corrected for shrinkage

^{c} MMPI FK = MMPI Freshmen norms, K-corrected T scores, total weighted scores, combines MMPI scales 1-4, 6-9

^{d} MMPI AK = MMPI Adult norms, K-corrected T scores, total weighted scores, combines MMPI scales 1-4, 6-9

of religiosity is supported. Note that the multiple
regression data reported in Tables 3.4-3.6 were calculated
from Freshmen norms. Similar results to those reported
here for Freshmen norms were found for Adult norms, although
the numerical data is not recorded in the present study.
The one difference was that for the Adult norms the
multiple correlation for church attendance and MMPI scale
L for males fell just short of significance, whereas this
particular multiple correlation was significant for the
Freshmen norms.

It is noted that both the multiple R correlation and
the simple Pearson product-moment correlation (r) are
involved in the above conclusion, supporting Hypothesis 3.
Hypothesis 3 regards the potency of traditional measures of
religiosity to predict the MMPI criteria compared with the
potency of the RSCI to predict the MMPI criteria. The
multiple R was used to test the potency of traditional
measures to predict the MMPI criteria. The simple Pearson r
was used to test the potency of the RSCI to predict the MMPI
criteria. One may ask whether it is legitimate to compare
multiple R correlations with simple Pearson r's.

The multiple R is itself based on two or more Pearson
r's. If the r's on which a particular multiple R is based
are actually zero in the population, it is probable that
these r's and the consequent multiple R will in the sample
turn out to deviate from zero due to the combined chance

deviations of the several r's. The F test used to test the level of significance of the multiple R's in the present study takes into account these combined chance deviations of the several Pearson r's, which together comprise the multiple R correlations. A given calculated multiple R therefore involves the combined chance variations of several Pearson r's, whereas a simple Pearson r taken by itself involves only once chance variation. Consequently, other things being equal, the multiple R correlation must be relatively higher than a simple Pearson r in order to reach a given level of significance. The respective tests of significance take into account the difference in meaning of, for example, a .40 multiple R as compared with a .40 simple Pearson r. Differences therefore do exist regarding the determination of significant differences for R and r. Nevertheless, once significant differences have been determined or ruled out, the results regarding significance for multiple R's may be compared with the results regarding significance for simple r's, provided the same level of significance has been applied in each case. In the present study a .05 level of significance was used in testing the significance of both multiple R's and simple r's. Comparing the results of multiple R tests of significance with the results of simple Pearson r tests of significance is therefore considered defensible.

Hypothesis 3: Traditional Measures of Religiosity, MMPI Total Score Means, and Sex; Analysis of Variance

As an adjunct to the multiple regression analysis used to test Hypothesis 3, a two-way analysis of variance (two-way to take into account the sex variable) for unequal $\underline{N}s$, using the method of unweighted means (Winer, 1971, p. 445f), was used to compare MMPI FK total score means among the given categories within each of the four traditional measures of religiosity. Tests of significant difference (Newman-Keuls) were made between separate MMPI FK total score means of groups within the various categories of church membership (2 x 2), church attendance (2 x 5), prayer frequency (2 x 5), and Bible reading frequency (2 x 4). Thus 27 comparisons of means were made for each of three groups: males, females, and males and females combined. Hence a total of 81 comparisons was made between MMPI FK total score means among the total of sixteen categories of the four measures of traditional religiosity. No significant differences were found (Tables G.1-G.8). Hence, regardless of the category in which a $\underline{S}$ placed himself or herself in regard to each of the four measures of traditional religiosity, the MMPI FK total score mean of $\underline{S}s$ in a given category did not differ significantly from the MMPI FK total score mean in another category of the same traditional measure. These findings do not contradict Hypothesis 3, which states that the RSCI is a better predictor of the

MMPI criteria of maladjustment than traditional measures of religiosity. Furthermore, these findings are not inconsistent with the general implication of Hypothesis 3; i.e., that qualitative differences in the mental health of Protestants are not adequately distinguished by traditional quantitative and categorical measures of religiosity. Similar statistical results were found for MMPI AK (Adult norm) total score means as for MMPI FK (Freshmen norm) total score means reported above, although the numerical data are not recorded in the present study.

Hypothesis 3: Traditional Measures of Religiosity, RSCI Means, and Sex; Analysis of Variance

As a further adjunct to the multiple regression analysis used to test Hypothesis 3, a two-way analysis of variance (two-way to take into account the sex variable) for unequal $\underline{N}$s, using the method of unweighted means (Winer, 1971, p. 445f), was used to compare RSCI raw score means among the given categories with each of the four traditional measures of religiosity. Tests of significant difference (Newman-Keuls) were made between separate RSCI raw score means of groups within the various categories of traditional religiosity. A total of 81 comparisons was made. Only 11 of the total of 81 comparisons among RSCI means were found to be significant (Tables G.9-G.16).

An inspection of Table G.9 reveals that the RSCI mean for male church members is not significantly different from

that of male nonmembers. Likewise, no significant difference was found between female church members and female nonmembers. However, the RSCI mean for male and female church members combined is significantly smaller than the mean for nonmembers.

An inspection of Table G.11 reveals only one significant difference among RSCI means and various categories of church attendance for males (Never-Very Seldom), and no differences for females. For males and females combined, there are significant differences between those who never attend church, and each of the other four categories of church attendance.

An inspection of Table G.13 reveals only one significant difference among RSCI means and various categories of prayer frequency for males (Never-More Than 1/Day), and no significant differences for females. For males and females combined, there are significant differences between those who never pray and each of the other four categories of prayer frequency.

An inspection of Table G.15 reveals no significant differences among RSCI means and various categories of Bible reading frequency, for males, for females, and for males and females combined.

Thus the preponderance of these findings is not inconsistent with the general implication of Hypothesis 3;

i.e., that qualitative differences in the mental health of Protestant beliefs (in this instance as measured by the RSCI) are not adequately distinguished by traditional quantitative and categorical measures of religiosity.

CHAPTER IV

DISCUSSION

Introductory Summary

Does religion hinder mental health? Some people

maintain that religious individuals are psychologically

unhealthy. Others claim that religion does not hinder

mental health. A third possibility is investigated in the

present study: whether religion hinders or does not hinder

mental health depends upon the nature of an individual's

belief system; i.e., the particular kind of beliefs a person

holds.

The present study is confined to Protestants and

Protestant beliefs about religion. To assess the particular

Protestant beliefs regarded as unhealthy, a Religious

Sentence Completion Inventory (RSCI) was developed. A

Scoring Manual for the RSCI was developed from a pilot

study, using an abbreviated form (Mini-Mult) of the

Minnesota Multiphasic Personality Inventory (MMPI) as the

maladjustment criterion. The main study followed, with 103

undergraduate students as $\underline{S}$s. Interscorer reliability for

the RSCI was .83.

The results of the main study revealed significant

positive correlations for females between the RSCI and

the MMPI total score, and MMPI scales 1, 2, 3, 4, 6, 7, and 8. No significant correlation was found for females between the RSCI and MMPI validity scale F. Only MMPI scale 6 correlated with the RSCI for males. These data appear to partially support the proposition that whether or not Protestant beliefs about religion are psychologically unhealthy does depend upon the nature of an individual's belief system; i.e., the particular kind of beliefs a person holds.

Support for this main thesis of the present study is stronger for females (eight of nine correlations hypothesized significant), than for males (one of nine correlations hypothesized significant) (Tables 3.1 and 3.2). Possible reasons for the sex differences which were found are the small number of males in the pilot study, and the inability of many Protestant males to see religion as a legitimately masculine endeavor.

Furthermore, the RSCI was found to be a better predictor of the MMPI criteria (14 of 27 predictions significantly different) than were traditional measures (church membership, church attendance, prayer frequency, and Bible reading frequency) of religiosity (none of 108 predictions significantly different). These findings are interpreted as supporting the view that traditional quantitative and categorical measures of religiosity do not satisfactorily discriminate qualitative mental health differences among Protestants.

Further analysis of the data from the present study, including examination of specific RSCI responses, and additional appropriate research, are seen as likely to contribute to the improvement of reliability and validity of the RSCI in the future.

Interscorer Reliability

Interscorer reliability for the three scorers (.83) appears to be satisfactory for the present preliminary stage of the Scoring Manual. The relatively lower reliabilities between pairs of scorers are probably partly due to the restricted range of the correlated comparisons (Guilford, 1965, p. 341f).

Improvement of interscorer reliability may be achieved by having the developer of the RSCI score all of the protocols in the present study. Item-by-item, as well as total-score comparisons, could then be made among the developer of the Scoring Manual and each of the three scorers who participated in the present main study. Large differences among the scorers would probably indicate that the developer had not adequately defined and communicated the scoring system to the scorers.

A question for consideration is whether scoring of the RSCI requires any special psychometric, psychological, or theological training. Scoring decisions on the RSCI do require more than elementary arithmetic skills. Some

appreciation of the importance of accuracy and objectivity seems necessary. Likewise acquaintance with basic psychological and Protestant theological concepts seems desirable. Further research on the minimal qualifications necessary for scorers would be appropriate, particularly after the RSCI has been more adequately developed. Until this developmental adequacy is achieved, it is recommended that individuals who served as scorers for the RSCI have at least elementary psychometric, psychological, and theological discrimination skills.

Validity

A number of considerations are relevant regarding validity in the present study.

Sex Differences

The question arises as to why the RSCI seems to be more valid for females than for males. Why are there eight significant correlations for females and only one for males? In fact, even the one significant correlation which was found for males (scale 6) is suspect, since it falls below the level of significance when inconsistent TR Ss are removed from the total sample (see Chapter III).

Small number of males in the pilot study.--A logical explanation for the sex differences which were found appears to be that only nine male Ss participated in the pilot study,

in which there was a total of 33 Ss. The Scoring Manual may
not adequately represent distinctions between healthy and un-
healthy responses for males, or may need to be scored in a
different manner than for females.

True-and-false questionnaires require that a S put
himself in one of two categories (if the S answers at all).
In contrast to true-and-false questionnaires, sentence
completion tests elicit a wide variety of responses. Thus
it is necessary to have a large sample of responses to each
item for a sentence completion test in order to make
empirically meaningful decisions as to response scoring.
The sample of responses needs to be large in order to have
some indication of the variety of responses which are
likely to occur. Also, the sample of responses needs to be
large in order to have a sufficient number of similar-type
responses to determine whether the scoring of a particular
response improves the correlation with the criteria. The
number of males in the pilot study may have been too small
to achieve this sampling adequacy for males.

Is it masculine to be religious?--In addition to the
reason offered above as a possible explanation for the sex
differences discovered in the present study, there is
another consideration. For many Protestant males there is
a tendency to look upon interest in religion and the church
as something that most appropriately belongs to the life and
role of women and children.

Early conditioning often subconsciously but influentially leads males to believe that religion is for sissies, weaklings, losers, the overdependent, overly emotional, and the gullible; that religion is anti-rational, unscientific, and impractical. All of these impressions of religion for many Protestant males subtract from the popular American image of masculinity. For college men, taking an interest in sports, sex, cars, and motorcycles is a way of boosting the male image with many of one's peers. Taking an interest in religion often has the opposite effect. Contributing to this sissified image of Protestant religion is the frequently weak and effeminate partrayal of the central personage of Christianity, Jesus Christ. For many Protestant males religion is put into the same category as tiddlywinks, Mickey Mouse, crying, and the outward show of the more tender emotions. Thus this sex-religion stereotype may stunt the religious development of many Protestant males and may have made it difficult for males in the present study to participate responsibly in the Religious Sentence Completion Inventory.

Summary and conclusion.--The failure to support Hypothesis 1 and all but one of the eight parts of Hypothesis 2 for males in the present study may be accounted for by the small number of males in the pilot study on which the RSCI Scoring Manual is largely based,

and/or the inability of Protestant males to see religion as a legitimately masculine endeavor.

Therefore, for future research it seems advisable to devise separate RSCI Scoring Manuals for males and for females. The lack of homogeneity of variance for males and for females in the main study may be another reason in favor of separate Scoring Manuals.

Other investigators have found it necessary to devise separate scoring manuals for their sentence completion instruments. In their development of the Incomplete Sentences Blank, designed to measure general adjustment, Rotter and Rafferty (1950) found it necessary to devise separate scoring manuals for males and females. Although in many instances the two manuals seem to score very much alike, there are enough differences to significantly affect the total score if the sex-appropriate scoring manual is not used.

> The examiner is cautioned against using inter-changeably the scoring manual for male and female records. In constructing the scoring manuals, it was found that responses made by male and female subjects can not be scored by using the same criteria [Rotter & Rafferty, 1950, p. 54].

Mosher (1961) also found it necessary to devise a separate scoring manual for males and for females for the Mosher Incomplete Sentences Test (MIST), which was designed to measure guilt.

Comparison of the Sample with Other Undergraduates

Since the sample means of the individual MMPI scales in the present main study are for the most part above 50 (Tables 3.1 and 3.2), and since the standard deviations seem large, the question is raised as to whether the sample is atypical; i.e., more maladjusted than a typical undergraduate or adult sample would normally be. This question is particularly relevant to the male subsample. The elimination of the TR Index $\underline{S}$s with raw scores ≥ 4 reduced some of the means and standard deviations so that they appear to be closer to the norm groups. However, even after the inconsistent TR $\underline{S}$s are removed, the mean of means of the MMPI scales continues to be larger than 50, and some standard deviations appear to remain large (Table 3.3). Some of this variation is no doubt due to chance. The chance factor probably explains the female subsample deviations, since they appear to be minor and occur on both sides of the standard mean of 50 (see Chapter III for explanation of Freshmen norm K scale deviations).

However, since most of the means are larger than 50 for males, and the mean of means remains rather large even when the inconsistent TR $\underline{S}$s are removed, the possibility that the male sample is somewhat atypical cannot be ruled out. That is, the male subsample may be moderately more maladjusted than the typical undergraduate or adult population. This characteristic of the male subsample should be kept in mind

when evaluating and comparing the results of the present study. For example, the RSCI mean for males may be higher for males in the present study than it would be in another more normal sample.

Hypothesis 1: RSCI and MMPI Total Scores

The total weighted MMPI score is tentatively regarded as a rough index of general adjustment. A general adjustment index was desired as a criterion for the RSCI, since the RSCI is considered heterogenous in content. The MMPI total weighted score is regarded as experimental and should be interpreted with caution.

Combining scores on the MMPI (see Chapter II) is not a typical or well-established procedure. One may question the validity of the particular MMPI total score used in the present study, on several grounds.

First, some if not all of the MMPI clinical scales used in the present study (1-4, 6-9) to calculate the total MMPI score may not be unipolar. A review of the MMPI Handbook scale interpretations (Dahlstrom et al., 1972) reveals some evidence for the unipolarity of MMPI clinical scales 1, 2, 4, 7, and 9. Evidence for unipolarity on scales 3, 6, and 8 appears to be less convincing.

In the second place, one may question the value of the relative weights assigned to various T scores on the scales. Is a T score above 90, weighted as 6, indicative of three

times as serious maladjustment as a T score of 53, which is
weighted as 2? If not, what values should be assigned to
these and other T scores?

Third, no significant correlation was found between the
RSCI, and MMPI scale 9, either in the pilot study or in the
main study. However, in the present study the MMPI total
score includes scale 9. Therefore, a more accurate index of
general adjustment for the specific purpose of comparison
with the RSCI might be a total MMPI weighted score which
excluded scale 9. For purposes of comparison and explo-
ration, this abbreviated MMPI total score without scale 9
was calculated (Table 4.1), using both the Freshmen and Adult
MMPI norms previously cited. Inspection of Table 4.1 shows

TABLE 4.1

COMPARATIVE CORRELATIONS OF THE RSCI, WITH MMPI
TOTAL WEIGHTED SCORES: WITH AND WITHOUT MMPI
SCALE 9; FOR ADULT, AND FRESHMEN NORMS

	MMPI Total K-Corrected Weighted T Scores			
	Adults With 9	Adults Without 9	Freshmen With 9	Freshmen Without 9
Males	.15	.18	.13	.16
Females	.38	.41	.41	.44
Total	.27	.29	.28	.31

slight improvements in the correlation without inclusion of
scale 9 in the MMPI total score for both Freshmen and Adult

norms. Whether or not these correlational improvements are stable and significant needs to be demonstrated in future research.

The MMPI total scores used in the pilot study to develop the RSCI Scoring Manual included scale 9. For the purpose of improving the RSCI Scoring Manual in the future, it will probably help if scale 9 is excluded from the MMPI total score when making criterion comparisons.

The three considerations discussed above raise questions of caution regarding the validity of the MMPI total score employed in the present study. On the other hand, there is evidence from the present study which lends some support to the validity of the MMPI total score. For example, the MMPI total score was used in the pilot study to develop the RSCI Scoring Manual. Since the RSCI seems to have some tentative validity when it is correlated with the MMPI individual scales in the main study, one possible inference is that the MMPI total score is picking up to some extent on elevations from the individual MMPI scales.

More direct support for the validity of the MMPI total score is found in MMPI total score correlations with MMPI individual scales in the present main study. The MMPI FK total score correlated with individual MMPI scales 1-4, 6-8, from .66 - .83 for all $\underline{S}$s, .57 - .86 for males, and .68 - .82 for females, in the present main study. These correlations were all significant (p< .01). The MMPI FK total

score correlations with MMPI scale 9 were .50 for all $\underline{Ss}$,
.47 for males, and .53 for females (all p< .01). Similar
results were found for MMPI AK correlations.

Thus, the total MMPI weighted score may be tentatively
regarded as a rough index of general adjustment. The
probability is that the MMPI total score has considerable
validity but could be improved by further research and
revision. For the present study the MMPI total score is
regarded as experimental and should be interpreted with
caution.

Hypothesis 2: RSCI and MMPI Scales

Since the validity of the MMPI protocols of inconsistent
MMPI TR Index $\underline{Ss}$ (see Chapter III) is questionable, it is
more likely that the correlations between the RSCI and MMPI
criteria are more valid without these nine inconsistent TR
$\underline{Ss}$. When these inconsistent TR $\underline{Ss}$ were removed, there were
no changes in significant correlations for females from the
total female sample results. However, when the inconsistent
TR $\underline{Ss}$ (N = 5) were eliminated from the male sample, no
significant correlations were found for males between the
RSCI and MMPI criteria. A significant correlation for MMPI
scale 6 was found for the total male sample (Tables 3.1 and
3.2), but scale 6 was not significant (for both Freshmen and
Adult norms $\underline{r}_{obs}$ = .20, $\underline{r}_{.05}(43)$ = .29) when the inconsistent
TR $\underline{Ss}$ were eliminated. This finding casts doubt upon the

significant correlation found in the total male sample of
the present study. This finding lends added support to the
need for devising a separate RSCI Scoring Manual for males.

When inconsistent TR Ss were removed, no significant
differences were found between the RSCI and MMPI FK total
scores, or for scales 7 or 8, for males and females combined.
This contrasts with the total sample results, where sig-
nificant differences on these scales were found. Significant
differences on MMPI AK, and scales 2, 4, and 6 remained the
same with or without inconsistent TR Ss for males and
females combined. Since no significant correlations were
found for males, whereas seven of eight were found to be
significant for females, the combined correlations for males
and females appear to have limited meaning.

The sections which follow attempt to relate the meaning
of RSCI item responses to the MMPI individual scales.
Adjectival descriptions of the meaning of the various
correlations between the RSCI, and MMPI scales are given in
the previous chapter. There is value in these general
descriptions, based on empirical research. The composite
descriptions in Chapter III are based on collective profile
configurations of correlations between the RSCI and the
MMPI. In most cases more than one MMPI scale is involved.
Evaluations of several MMPI scales together has the advantage
of avoiding descriptions based on one scale only. For

example, one individual may be high on MMPI scale 4, but he may also be high on three other scales. Another person may be high only on scale 4. Interpreting these two protocols on the basis of scale 4 only may make these individuals appear more similar than they actually are.

On the other hand, broad descriptions such as those in the previous chapter can become quite diffuse and difficult to apply meaningfully, and may lack a persuasive theoretical framework. Thus there is value also in analyzing the significant correlations between the RSCI and MMPI on the basis of the separate individual MMPI scales.

RSCI and MMPI scale 1.--A significant positive correlation was found between the total RSCI scores and MMPI scale 1 for females, but not for males (Tables 3.1 and 3.2). Individuals who are elevated on this scale are characterized by a "lack of insight into the emotional basis for their preoccupation with somatic processes [Dahlstrom et al., 1972, p. 178]." Ninety percent of the items on this scale are concerned with physical symptoms and health. The RSCI was not intentionally designed to correlate with scale 1. One may ask which items and responses on the RSCI might be related to MMPI scale 1. There are responses on the RSCI which are scored unhealthy because of a lack of admission of emotional reality, denial of emotional need, naive beliefs about the magical removal of emotional problems, and item

responses where a lack of healthy affirmation regarding
one's self, body, sickness, and the material world are
found. It is conceivable that these unhealthy and un-
realistic religious beliefs may either precipitate or be
derived from emotional immaturity and abnormal concern for
one's bodily functioning.

RSCI and MMPI scale 2.--A significant positive
correlation was found between the RSCI, and MMPI scale 2 for
females, but not for males (Tables 3.1 and 3.2). Unhealthy
and unrealistic religious beliefs regarding faith, hope,
love, giving, sacrifice, success, failure, "goodness," and
death may result in a denial on the RSCI of the human
emotions of anger, grief, pessimism, doubt, and sexuality, as
well as a denial of legitimate self, material, and achievement
needs. Such denial may lead to overt or covert depression;
e.g., smiling depression, loss of interest in things,
feelings of uselessness, worthlessness, retardation of
functioning, and shyness. Protestant religious beliefs may
be used in Pollyanna ways as a denial of depression, as an
escape from emotional responsibility, an excuse for not
functioning, a resignation from problem solving, an emphasis
on grace that does not take competence and works seriously,
and as a compensation for failures: personal, physical,
social, or vocational. Thus unhealthy Protestant beliefs may
precipitate or be derived from depression.

RSCI and MMPI scale 3.--A significant positive

correlation was found between the RSCI and MMPI scale 3

for females, but not for males (Tables 3.1 and 3.2).

> This scale was developed to aid in the indentifi-
> cation of patients using the neurotic defenses of the
> conversion form of hysteria. These patients appear to
> use physical symptoms as a means of solving conflicts
> or avoiding mature responsibilities [Dahlstrom et al.,
> 1972, p. 191].

Scale 3 has the second highest percentage (38) of items

regarding physical symptoms, of the ten basic MMPI clinical

scales. Endorsement of physical symptoms on scale 1 is more

likely to be general and diffuse, whereas endorsement of

physical symptoms on scale 3 is more likely to be specific.

Individuals with elevated scores on this scale appear

to be particularly fond of denial. They have a tendency to

deny troubles and to deny impulses in themselves which are

uncomplimentary to them. The contradictions and denials of

these women seem to appear in the form of various reaction

formations; i.e., the more they feel one way, the more they

act the opposite. For example, the more disappointed,

irritated, and negative their attitudes toward others are,

the more friendly and sociable they attempt to be. The more

worrisome and insecure they are, the more poised and assured

they attempt to appear. The greedier they feel, the more

generous they attempt to appear. The more inferior they

feel, the more vain they become. The more impotent they

feel, the more they seek to display, dramatize, and convince others of their power.

These women have a tendency to become increasingly overexcited and hysterical under increasing stress, presumably because of their inability to adequately and inwardly handle escalations of emotion. These escalations of emotion get out of control because they are denied and because methods of coping are unsatisfactory.

The denial and reaction formations described above are logically and psychologically similar to responses on the RSCI which are scored as psychologically unhealthy; e.g., denial of fears, doubts, problems, sexual feelings, and anger. Personal denial may easily be compounded by social denial, and personal and social denial may be even further compounded by religious denial (or vice versa).

RSCI and MMPI scale 4.--A significant positive correlation was found between the RSCI and MMPI scale 4 for females, but not for males (Tables 3.1 and 3.2). Unhealthy religious beliefs on the RSCI which indicate a lack of control of temptation, a lack of concern regarding matters of conscience, a more-sinned-against-than-sinner attitude, would appear to have some similarity to the characteristics of females with elevated scores on this scale. Females with elevated scores on scale 4 tend to externalize blame for their troubles. They complain that, because of what others

have done to them or failed to do for them, they have been unjustly deprived of freedom, happiness, prosperity, success, prestige, love, and understanding. These women have a tendency to act out their dissatisfactions on their environment by disregarding social customs and moral standards, by violating laws and getting into trouble with authority figures. These women have a tendency not to profit from punishment and to be emotionally shallow in their relations with others "particularly in sexual and affectional display [Dahlstrom et al., 1972, p. 195] ."

RSCI and MMPI scale 6.--A significant positive correlation was found between the RSCI and MMPI scale 6 for females, for males, and for females and males combined (Tables 3.1 and 3.2). Individuals with elevations on this scale tend to believe that other people are against them, that the motives of others are unscrupulous, and that they are being adversely pressured, influenced, and plotted against. Individuals with elevations on scale 6 have a tendency to build up false and rigid belief systems which do not correspond with reality. A number of responses on the RSCI which are scored as unhealthy reflect unrealistic beliefs. Such persons are likely to be shy, timid, suspicious, and cynical about others. These individuals are characterized by others as ruthless, clever, fickle, and hardhearted. They have a tendency to project motives onto

others which actually are within themselves. "People are
against me," actually means, "I am against others." "People
are not trustworthy," actually means, "I am not trustworthy."
"People won't relate to me," actually means, "I won't relate
to others." "People don't care about me," actually means,
"I don't care about others." "People don't do good things
for me," actually means, "I don't do good things for others."
"People are no good," actually means, "I am no good." The
excessive downgrading of others and upgrading of themselves
may both largely stem from an individual's downgrading of his
own self. Some items on the RSCI specifically concern
acceptance of others and the acceptance of oneself (4, 17,
36, 47, 56, 58, 72, 86, 88), and may be important contrib-
uting elements to the correlation with scale 6.

RSCI and MMPI scale 7.--A significant positive
correlation was found between the RSCI, and MMPI scale 7
for females, but not for males (Tables 3.1 and 3.2).
Responses of perhaps 22 of the 35 items evaluated for
scoring on the RSCI may directly or indirectly contribute to
the correlation on this scale. RSCI responses regarding
fear, anger, sex, temptation, sin, conscience, forgiveness,
and self-evaluation may contribute to the correlation on this
scale. Individuals with elevations on this scale are likely
to repress threatening emotions, have abnormal fears,
experience excessive anxiety and guilt, be easily embarassed,

have unrealistically high levels of morality and aspiration,
suffer from excessive self-criticism and self-dissatisfaction,
and are likely to be indecisive, inhibited, and immobilized.

RSCI and MMPI scale 8.--A significant positive
correlation was found between the RSCI and MMPI scale 8 for
females, but not for males (Tables 3.1 and 3.2). Individuals
with elevated scores on scale 8 tend to be seclusive,
secretive, and serious. They are likely to be apathetic
and undependable, lacking in self-confidence and maturity.
These individuals describe themselves as conceited, boastful,
selfish, hostile, rebellious, and pugnacious. In contrast
to these self-descriptions, other people described these
individuals as humble, peaceable, and grateful. This
contrast suggests that even normal inner feelings of
aggressiveness, anger, self-seeking, self-affirmation,
self-autonomy, and competitiveness may arouse excessive
concern, suppression, and concealment on the part of these
individuals. This may cause them to appear outwardly placid,
even apathetic. Thus their oversensitivity within may
result in their presenting a poker face of "insensitivity"
to other people.

Unhealthy RSCI responses regarding social and emotional
isolation and immaturity may relate to this scale. In
general, unhealthy Protestant beliefs may lead to withdrawal
and alienation from others. And in particular, unhealthy

Protestant beliefs regarding fear, anger, doubt, sexuality, temptation, conscience, and self may lead to emotional immaturity.

> Unlike psychotic groups who are high on this scale,
>
> there is little to suggest any appreciable degree of disorganization in their [college women] behavior... since [they were described by their peers with] such terms as orderly, wise, clear-thinking, and adaptable [which] seem to convey good control and integration [Dahlstrom et al., 1972, p. 280].

RSCI and MMPI scale 9.--No significant correlations were found between the RSCI and MMPI scale 9 for males or for females, or for males and females combined (Tables 3.1 and 3.2). The two major reasons for not hypothesizing a significant correlation between the RSCI and MMPI scale 9 were (1) the pilot study failed to indicate such a relationship, (2) there is no reason to believe at the present time that a substantial number of responses which are scored as unhealthy on the RSCI would reflect personality characteristics associated with MMPI scale 9.

RSCI and MMPI scale F.--No significant correlations were found between the RSCI and MMPI validity scale F for males or for females, or for males and females combined (Tables 3.1 and 3.2). A relationship between the RSCI and scale F was hypothesized mainly on the basis of the pilot study, where a significant correlation was found.

A reconsideration of the factors which influence scale
F indicates that under some circumstances a correlation
between the RSCI and scale F might be found. The
endorsement of certain items on the F scale may correspond
to certain items on the RSCI. However, (1) if the
appropriate corresponding items on the RSCI and scale F are
not endorsed, or (2) if items on the F scale are endorsed
concerning past behavior which has been adequately resolved
and overcome by the individual, or (3) if the individual
endorses items on the F scale out of ignorance, carelessness,
confusion, an unusually atypical test-taking orientation, or
out of hostility, then it is quite possible that the RSCI
and scale F would not correlate.

Hypothesis 3: RSCI and Traditional Measures of Religiosity

The RSCI was found to be a better predictor of the MMPI
criteria than were any of four traditional measures of
religiosity (Tables 3.4-3.6). Thus Hypothesis 3 was
supported. This finding is interpreted as supporting the
view that a qualitative measure of religiosity (RSCI) rather
than quantitative traditional measures of religiosity
better predicts maladjustment (MMPI criteria).

Many studies concerning the relationship between
religion and mental health have used traditional measures
of religiosity as independent variables. The results of

the present study regarding Hypothesis 3 call into question
the adequacy of traditional measures in such studies.

Professional baseball scouts do not judge the quality
of a prospective player exclusively on the basis of whether
or not the player is a formal member of a baseball team, the
frequency with which the player plays baseball, how often
the player reads books about baseball, or how much the
player meditates on the game. These indices leave a lot to
be desired in chosing a professional baseball player.
These indices may indicate necessary basic conditions for a
professional baseball player but they are far from
sufficient conditions. Likewise, the quality of an indi-
vidual's religious faith would not seem to be adequately
measured by the typical quantitative indicators of re-
ligiosity such as church membership, church attendance,
prayer frequency, or Bible reading frequency. This is not
to say that such activities may not be important or vital to
a healthy and vigorous religious life. It is simply to say
that a given quantitative category of religiosity, such as
Bible reading frequency, does not adequately distinguish the
qualitative level on which a given individual is functioning.

CHAPTER V

CONCLUSIONS

Limitations of the Present Study

One limitation of the present study is that the
responses on the three sets of 28 protocols, which were
independently scored by each of the three scorers, were <u>not</u>
typed out randomly on sheets separate from the original
written protocols of the <u>S</u>s. The failure to take this pre-
caution may mean that the results of the present study are
contaminated by "halo" effects. The method of typing re-
sponses on separate sheets was employed with the 21 protocols
which were used to determine interscorer reliability (see
Chapter II).

Another apparently serious limitation of the present
study is that only nine males were included in the pilot
study upon which the RSCI Scoring Manual was largely based.
This may have been a major factor in the failure to
anticipate and provide separate Scoring Manuals for males
and females in the present main study.

A further limitation of the present study was that the
<u>N</u> for Blacks and for the lower socio-economic class groups
were too small to determine whether relevant significant
differences exist for these subgroups.

Moreover, there may be a limitation as well as an advantage in using religious sentence-completion stems. The religious stems which make up the RSCI frequently evoke strong emotional responses. Observation by the E of Ss in both the pilot and main studies, as well as examination of Ss written responses, seem to indicate both an advantage and a disadvantage of religious stems. Religious stems apparrently give some Ss an opportunity to respond in ways which they may not have revealed themselves on "nonreligious" tests. Religious stems may encourage some Ss to be more self-disclosing in their expression of positive and/or negative belief responses. However, for other Ss religious stems may cause them to react with responses indicating greater rebellion, rejection, and evasiveness than they would on a nonreligious test. Thus religious stems may be responsible for increasing validity for some Ss, and decreasing validity for others. The possibility of constructing validity measures for the RSCI might be considered to discriminate between individuals whose validity remains intact, or is increased, or decreased by religious stems or other factors.

Another possibility for consideration is to use some of the religious stems in the RSCI in combination with other nonreligious stems. The heavy concentration of religious stems on the RSCI may have adverse effects on the responses and scores of some Ss.

Future Research and Development

The RSCI responses and data gleaned from $\underline{S}$s in the present study may be used to improve the RSCI Scoring Manual. The revised RSCI Scoring Manual may then be used in future research. RSCI total scores, as well as the specific responses of individual $\underline{S}$s, may be examined in relation to the same $\underline{S}$s MMPI total score. By this method discovery of additional responses to score, or other scored responses which need to be made more precise or otherwise revised, may be achieved.

From the present study it seems advisable to devise separate RSCI Scoring Manuals for males and for females, as previously discussed.

A reconsideration seems in order regarding the possibility of a graded scoring system for RSCI responses adjudged to be unhealthy. Such graded systems of scoring have apparently been successful in other developments of sentence completion tests. Weights of 0-6 are assigned to sentence completion responses by Rotter and Rafferty (1950), weights of 0-5 by Mosher (1961), and weights of 0-2 by Lanyon (1970).

The above-suggested experimentations and changes may improve the reliability and validity of the RSCI.

The possibility of devising scales for the RSCI may also be considered. At the present time it appears that

responses scored as unhealthy on the RSCI are related to
the standard defense mechanisms outlined by psychoanalytic
theory. Unhealthy RSCI responses are related to MMPI
clinical scales which reflect characteristics and
categories that have traditionally been set forth in
abnormal psychology. RSCI responses regarded as unhealthy
are also related to some of the more recent emphases on
responsibility cited previously. Viable scales might turn
out to include one or more of the above dimensions or others
determined by factor analysis.

Following improvements in the scoring system, mentioned
above, research could be done with mental hospital, prison,
post-college, and Protestant church groups. Also, research
could be done with Protestant pastoral-counseling
counselees, Protestant seminary students, and practicing
Protestant clergymen.

It is important to note at this point that
administering the RSCI in a church environment may
significantly change the set of a given S from a set which
this same S might have in a college classroom. It is well
to keep in mind that the present main study data was
collected in a college classroom setting. Thus data
collected from administrations of the RSCI in a church or
semi-church environment should be treated with caution. To
solve this problem, an RSCI validity scale to measure factors
such as social-religious desirability might be devised and

used to correct and adjust RSCI raw scores. The RSCI already has some built-in protection against social-religious desirability effects, since some of the item stems are designed to elicit (unless the S knows better) what a S may believe is a desirable social-religious response which actually turns out to be an unhealthy belief. For example, consider the following response to RSCI item 57: "A Christian who has doubts about God / is not a true Christian." This particular response would be regarded by some Ss as a healthy response but the response is actually scored as unhealthy. Conversely, in a church environment some Ss may actually approach the RSCI with an anti-social-religious desirability set which they might not have in a college classroom. Anonymous administrations or administrations of the RSCI by persons not on the church staff or membership, who agreed to keep results in confidence, may help to offset some of the adverse influences on RSCI scores of contaminating sets.

Criterion measures other than those employed in the present study might also be researched: MMPI special scales for ego strength, dependency, anxiety, and Welsh's A and R factors, pastor's ratings, psychologist's ratings, and sociometric data.

It seems reasonable to assume that the results of the present study would generalize rather well to other normal populations of Protestant females in the United States. The one MMPI scale (6) with which RSCI scores for men

correlated was barely significant. Furthermore, this one

correlation for males on scale 6 was not significant when

inconsistent MMPI TR Index males were removed from the

total sample of males. This finding casts doubt upon the

validity of the significant correlation found in the total

male sample. A more adequate and valid scoring system for

males needs to be developed before generalizations to

male groups could be made with confidence.

The results of the present study may not generalize

well to Protestant seminary students or to Protestant

pastors, either male or female. Special norms and

possibly special scoring manuals for seminary students and

pastors may be needed. Such modifications of the RSCI may

be worthwhile. At the present time Protestants seem to be

taking greater interest in not only training pastors in

pastoral psychology but also in improving the mental health

of pastors themselves. It may be that pastors are par-

ticularly susceptible to problematic involvements with

psychology and theology precisely because they often have

heavy personal and professional investments in both fields.

In the present study the decision was made to include a

broad "Protestant" sample. Individuals with Protestant

backgrounds who at the present regarded themselves as

agnostic, atheist, or "Other," and who had not committed

themselves to a specific nonProtestant group, were all

categorized as Protestants (N = 29). Of course individuals

who regarded themselves as Protestant at the time they were
tested were also regarded as Protestants (N = 74). From the
standpoint of religious development, many undergraduate
students go through a stage of evaluation, reevaluation,
and rebellion regarding the beliefs to which they were
exposed earlier in life. With many undergraduate students
in an unsettled state, it is difficult to determine whether
doubt and rejection of their religious background represents
a mature permanent choice or whether their doubt and
rejection is a transitory stage of religious development.
Thus for this reason the Protestant category in the present
study was made broadly inclusive. Although the present
study data did not indicate that former Protestants and
present Protestants should be considered separately, more
research is needed to determine if this finding is stable.

Sentence completion tests similar to the RSCI could be
developed for agnostics, atheists, and the indiscriminantly
anti-religious, as well as faith groups such as Catholics,
Jews, and Moslems, etc.

The question arises as to whether a sentence completion
test could be devised which would be applicable to any
faith group. Perhaps the same sentence completion stems
could be used with different scoring systems. Assuming that
this would be possible, the massive resources required to
carry out research on such a gigantic project would seem

prohibitive at the present time. However, with the increasing contact and intermingling of faith groups which were previously more confined to certain geographical areas, and with the plurality of belief systems, the need for devising a universal instrument becomes more pressing.

Uses of the RSCI

The first thing which needs to be said about the RSCI is that it is in a preliminary stage of development. Therefore, the RSCI should be used for research purposes only.

If and when the reliability and validity of the RSCI have been satisfactorily established, it may be found to be useful for a number of purposes. The RSCI might be used as part of a test battery for Protestant mental-hospital patients. In a mental-hospital setting useful information for the psychologist, psychiatrist, and chaplain might be obtained from the RSCI. Similar use might be made of the RSCI in a prison setting.

Furthermore, in other clinical settings the RSCI might be used particularly to assess bizarre and dangerous religious beliefs. Some individuals who have tendencies to be self-destructive or destructive to others have found justification for their tendencies in a grossly sick religious faith. Individuals have justified their killing of others by saying that "It was the will of God." People

have justified radical self-abuse, such as tearing out their eyes, on the basis of twisted literalistic interpretations of scripture.

The RSCI might be used by pastors or by pastoral counselors in a Protestant church setting where there is concern for mental health and qualified personnel are present to administer and follow up on the RSCI. One of the more natural settings for the RSCI would be in pastoral counseling centers.

Many Protestant seminaries are showing increasing interest in the mental health of seminary students. Likewise, the need for pastoral counseling and psychotherapy for practicing clergymen and their families has become increasingly apparent. Assuming that the RSCI could be adapted for use with such religiously specialized groups it may be one of the helpful tools in assessment.

Proper use of the RSCI raises the question as to who should administer the RSCI, and who should treat the individual where a combination of theological and psychological problems is indicated. Qualifications for administration would seem to include those attributes which are important for most paper-and-pencil tests. Qualifications for scorers were discussed previously. The question of who should treat the individual where a combination of theological and psychological problems is indicated has been

discussed by Menninger (1953), Mowrer (1961), and Clinebell
(1966). Clergymen vary widely in their psychological
training, sophistication, and objectivity; and psychologists
and psychiatrists vary widely in their theological training,
sophistication, and objectivity. The answer to this
question seems to lie in the individual clergyman's,
psychologist's, psychiatrist's, or counselor's ability to
assess his own and others' competence or lack of competence
in dealing with theological-psychological problems. The
ability to assess competence and to act accordingly, e.g.
to refer when one cannot do justice to his counselee, seems
to be a logical but sometimes difficult solution to
apply.

What About Psychologically Healthy Religious Beliefs?

One may ask why the present study is preoccupied with
psychologically unhealthy religious beliefs. What about
psychologically healthy beliefs? Is not the assessment of
healthy religious beliefs as important as, or even more
important than the assessment of unhealthy religious
beliefs? The omission of more direct consideration of
psychologically healthy religious beliefs from the present
study was not chosen because of a prejudgment that such
beliefs do not exist or are not important. This omission was
due to the following practical and theoretical considerations.

First, consideration of healthy beliefs was omitted because of the difficulty of making distinctions between genuinely healthy religious beliefs and religious beliefs which are socially or religiously desirable. Socially and religiously desirable beliefs may be adopted merely because they are socially acceptable or respectable, not because they have been independently evaluated and autonomously chosen by an individual. The importance of identifying and/or eliminating socially desirable responses from psychological testing instruments has been recognized in psychology (Crowne & Marlowe, 1964, Edwards, 1957). The social desirability problem has been one of the reasons by psychological testing instruments have generally been geared to assessing psychological maladjustment rather than adjustment and normalcy.

Second, consideration of healthy beliefs was omitted because the MMPI, criteria measure of the present study, is regarded as predominantly a measure of maladjustment rather than adjustment. This limitation of the MMPI seemed indirectly to be borne out in the pilot study of the present study when it was discovered that a graded system of scoring for the RSCI which attempted to include healthy religious belief responses did not result in improved positive correlations between the RSCI and MMPI (Mini-Mult). Use of other criterion measures such as sociometric data may

result in improved correlations with the RSCI, particularly
if the RSCI were scored according to a graded scoring system
which scored healthy as well as unhealthy responses.

Third, another reason for omitting consideration of
healthy religious beliefs from the present study was to
limit the scope of the present study.

A fourth reason for omitting consideration of healthy
beliefs from the present study was that to some extent
psychologically healthy beliefs may be inferred from the
absence of psychologically unhealthy religious beliefs.
This inference, however, is subject to two important
qualifications: (a) using the analogy of medicine, one may
see that one person who is sick and another person who is
well may both undergo the same series of medical tests, and
in both cases no indication of disease may be found. In the
case of the sick person the medical tests did not detect the
particular disease problem. In the case of the well person
there was no disease to detect. Thus one may see that
evidence for the absence of disease from medical tests
may or may not indicate the actual absence of disease in
a given individual. From the standpoint of probability,
each addition of a valid instrument of medical diagnosis
(excluding overlapping elements) to a series of medical
tests increases the probability of detecting disease if
such disease exists, and increases the probability that an

individual is healthy if no evidence of desease is
discovered. However, the possibility that disease exists
is not entirely eliminated in the latter case. This
illustration from medicine would seem to generally apply
to psychological tests which are predominantly mal-
adjustment measures. In particular, the medical analogy
would seem to apply in the present study to the MMPI
criteria, and to the interpretation of RSCI scores.
And (b) again using a medical analogy, medical diagnostic
tests do not always indicate the degree of positive health;
e.g., the individual's physical skill, agility, endurance,
muscular strength, organismic reserve, exercise habits,
nutritional habits, sleep habits, or ability to apply his
physical energy to his tasks. Likewise psychological
instruments, specifically the MMPI and RSCI, may not indicate
the degree of psychological or religious health which an
individual may possess over and beyond signs which indicate
the absence of psychological maladjustment. Thus the absence
of psychologically unhealthy religious beliefs on the RSCI
may indicate an increased probability that one's beliefs are
healthy, but it does not eliminate the possibility that one's
beliefs are not healthy.

Because of the four considerations above, psychologically
healthy religious beliefs were omitted from more direct
consideration in the present study.

Is Sincerity Enough?

One of the most prevalent beliefs in the United States regarding religion is "It doesn't make any difference what you believe as long as you are sincere." Americans like to pride themselves in showing tolerance of diversity-- including diversity of belief. Nevertheless, in practice there is still much intolerance, dogmatism, prejudice, and inconsideration. However, in an effort not to hurt people's feelings, to be nice, fair, an all-embracing sincerity is proclaimed, endorsed, and exalted above all belief differences. Many times the motives for endorsing sincerity are themselves quite sincere and noble. Perhaps the endorser of sincerity sincerely does not wish to be rejectionistic, condemnatory, narrow-minded, self-righteous, arrogant, or offensive in his attitude toward others who differ in their belief.

There is a great deal to be said in favor of tolerance and sincerity regarding religious beliefs. Ugly, destructive, and horribly tragic consequences have come from religious conflicts.

On the other hand, abhorence of religious strife may have pushed Americans to the other extreme. All beliefs are regarded as equal--equally good, or equally bad, or equally indifferent, depending on one's point of view. On the surface, such a view of equality of belief sounds very good, altogether fitting and proper. However, sincerity

does not determine truth. Consider the following instances in which a person may be sincerely wrong. "I sincerely believed the mushroom wasn't the poisonous kind, so I gave it to a friend to eat." "I sincerely didn't think the gun was loaded, so I pulled the trigger and shot a neighbor." "I sincerely believed I was doing the right thing when I insisted that my son take over the family business." "I sincerely thought I was doing the right thing when I quit school and got married." "I sincerely believed that the other car would give me the right of way." From these examples one is able to see that sincerity does not determine truth nor does sincerity preserve one from possible disastrous consequences of erroneous belief.

In physics, chemistry, biology, mathematics, sincerity is not regarded as the ultimate criterion of truth. In the social sciences sincerity, although it is a desirable virtue, is not regarded as a sufficient criterion for establishing scientific law. Even in philosophy, more than sincerity is required in most cases, and one is expected to set forth logical arguments in defense of his view. In religion, however, there is thought to be little or no basis for one's convictions other than subjective experience and sincere belief. It is true that the subjective element is a major factor in religion, as it often is in other fields.

However, if the proposition of the present study is true, that some beliefs are psychologically unhealthy, then one must raise a serious question concerning the popular American notion of sincerity.

There are certain differences in religious belief which are due to individual taste, interest, preference, and need. What is best religiously for one person may not be for another. Nevertheless, over and above these preferential differences in belief, there may be religious beliefs that are qualitatively different. A parallel example is found in the field of nutrition. Cultures as well as individuals may differ in their dietary habits. Two diets may differ in the types of foods consumed and yet may still be equally nourishing. Nevertheless, one would be mistaken in drawing the conclusion that all diets therefore are equally healthy. All diets, whatever the variety of their content, need to be evaluated from the standpoint of sound nutritional principles. Likewise, allowances should be made for certain individual preferences in religious belief. Such allowances, however, should not overlook the possibility that some beliefs may be quite different in their effect upon one's mental health, or, for that matter, upon some other legitimate criterion.

One of the problems faced by clergymen, psychologists, psychiatrists, and counselors is whether another person's religious beliefs should be confronted and challenged. If

all religious beliefs are regarded as detrimental, then all

religious beliefs may be challenged. If all religious

beliefs are regarded as good, there is no reason or basis for

confrontation. If all religious beliefs are regarded as

entities that should never be tampered with, whether they

be good, bad, or indifferent, then they shall be left

alone. Howevever, even when another person's beliefs are

left alone, the individual may be as much or more affected

as when his beliefs are challenged. But if a counselor

believes that some religious beliefs are unhealthy and

others are not, then there need to be some criteria for

making this discrimination. The proposition of the present

study is that this distinction does exist, and that the

distinction needs to be researched and delineated. Tolerance

of religious beliefs sounds good, and is often called for.

But where religious beliefs are detrimental to oneself or

others, they need to be diagnosed and treated. Serious

errors have and may be made in the diagnosis and treatment

of unhealthy religious beliefs. This does not mean, however,

that attempts to diagnose and treat religious beliefs that

are unhealthy should be abandoned, any more than that errors

in medical practice mean that medicine should be abandoned.

Rather, errors in diagnosing and treating religious beliefs

emphasize the importance of developing reliable and valid

tools and methods for diagnosing and treating unhealthy

religious beliefs.

CHAPTER VI

SUMMARY

Does religion hinder mental health? Some people maintain that religious individuals are psychologically unhealthy. Others claim that religion does not hinder mental health. A third possibility was investigated in the present study: whether religion hinders or does not hinder mental health depends upon the nature of an individual's belief system; i.e., the particular kind of beliefs a person holds.

The present study is confined to Protestants and Protestant beliefs about religion. To assess the particular Protestant beliefs regarded as unhealthy, a Religious Sentence Completion Inventory (RSCI) was developed. A Scoring Manual for the RSCI was developed from a pilot study, using an abbreviated form (Mini-Mult) of the Minnesota Multiphasic Personality Inventory (MMPI) as the maladjustment criterion. The main study followed with 103 undergraduate students as Ss. Interscorer reliability for the RSCI was .83.

The results of the main study revealed significant positive correlations between the RSCI and maladjustment validity criteria: an MMPI total score, and MMPI clinical scales 1, 2, 3, 4, 6, 7, and 8, but not F, for females.

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Only MMPI scale 6 correlated with the RSCI for males, although this one correlation is suspect. Possible reasons for the sex differences were the small number of males in the pilot study, and the inability of many Protestant males to see religion as a legitimately masculine endeavor.

These data appear to partially support the proposition that whether or not Protestant beliefs about religion are psychologically unhealthy does depend upon the nature of an individual's belief system; i.e., the particular kind of beliefs a person holds. Support for this main thesis of the present study is stronger for females (eight of nine correlations hypothesized significant) than for males (one of nine correlations hypothesized significant).

Furthermore, the RSCI was found to be a better predictor of the MMPI criteria (14 of 27 predictions significantly different) than were traditional measures (church membership, church attendance, prayer frequency, and Bible reading frequency) of religiosity (none of 108 predictions significantly different). These findings are interpreted as supporting the view that traditional quantitative and categorical measures of religiosity do not satisfactorily discriminate qualitative mental health differences among Protestants.

Further analysis of the data from the present study, including examination of specific RSCI responses and

additional appropriate research, are seen as likely to contribute to the improvement of reliability and validity of the RSCI in the future. Uses of the RSCI were considered, as well as the development of instruments of similar type for other faith groups.

APPENDIX A

INSTRUCTIONS

*Please do <u>not</u> write your name on any of the survey
   materials. Only numbers will be used to identify
   survey materials.

*Answer each part of the survey in the proper order.
   When you have completed on part go on to the next
   part.

*Your responses to the following test materials will
   be kept in confidence. Your name will not be
   associated with your test responses.

*Your responses to the survey materials will have no
   influence upon your grades in courses in which you
   are presently enrolled, and will not influence your
   future academic standing at North Texas State
   University.

*You will receive no academic credit for your participation
   in this research project.

*Some parts of this survey concern your personal beliefs
   about religion. If you sincerely object to revealing
   your personal beliefs about religion you may turn
   this sheet over and write a statement explaining the
   reason for your objection.

*Your honest answers will increase the accuracy of the
   research.

APPENDIX B

PERSONAL INFORMATION QUESTIONNAIRE

Please do <u>not</u> put your name on this questionnaire.

Date_____.

Age_____; Sex (circle one) : Male Female ;

Nationality_____; Race_____;

Marital status (circle one) :   Single Married Divorced

Widow(er);

Highest grade completed in elementary or high school

(circle one): 1 2 3 4 5 6 7 8 9 10 11 12 ;

Check highest educational level or degree in college or

university: I have never attended_____;

I am a freshman_____; sophomore_____; junior_____; senior_____;

I am a college graduate_____;

I am a graduate student_____; have a master's degree_____;

have an earned doctorate_____;

Present occupation_____.

For the following questions, "father" means the major adult
male person in your household when you were growing up. If no
male figure was present answer for mother or major female
person in household.

Whether your "father" is living, deceased, or retired;
answer in terms of his present or previous most productive
years.

Father's occupation_____.

Father's approximate income for a year: $_____.

APPENDIX C

RELIGIOUS SENTENCE COMPLETION INVENTORY

*On the seven pages which follow you will find one
   hundred numbered items. Each item is an incomplete
   statement.

*Complete the numbered incomplete statements so that
   they make complete sentences.

*EXAMPLES of how one incomplete statement might be
   completed by four different people:

   (A) I believe that Adam and Eve / never actually
       existed.

   (B) I believe that Adam and Eve / were actually
       the first two people on earth.

   (C) I believe that Adam and Eve / don't help us
       to understand very much about what people
       are like today.

   (D) I believe that Adam and Eve / illustrate some
       important characteristics of human nature
       that are still true today.

*The slash mark (/) in the examples above indicate the
   separation of the printed incomplete statement from
   the written response given by the person.

*The Religious Sentence Completion Inventory is
   concerned with any and all beliefs about religion
   which you may have.

*Whether your beliefs are in disagreement or agreement
   with, or are indifferent toward toward traditional
   and orthodox religious belief systems we are
   interested in having you fill out the following
   items.

*Please write so that your answers can be read.

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RELIGIOUS SENTENCE COMPLETION INVENTORY

*Do the items in order.

*If you are unable to complete an item, circle the
  number of that item and go on to the next item.

*Do the items as quickly as you can.

*Complete the following incomplete sentences by
  writing down what you believe.

1. Believing in God

2. To me God seems

3. As far as I am concerned the ten commandments

4. Racial integration in the churches

5. When I have a hard decision to make, I believe God

6. Heaven

7. Talking about religion in my family when I was
    growing up

8. My sins

9. People join the church because

10. Asking God in prayer

11. Christianity is based on

12. After death

13. People sin because

14. I consider the authority of the Bible

15. Becoming spiritually perfect in this life

16. For me to evangelize other people

17. The unforgivable sin

18. When Jesus said a person should take up his cross, he meant

19. A person who does not feel good enough to pray

20. The rewards of a Christian

21. Serving God

22. A good definition of sin

23. Knowing God

24. If someone asks me if I have been saved

25. God's will for me

26. Temptation

27. To lose one's life for Christ

28. When I feel that God is not real

29. From a Christian point of view, drug pushers

30. Depending on God

31. When my conscience bothers me

32. Hypocrisy in the church

33. God's love for me

34. Resisting temptation with will power

35. Jesus taught that God's eye is on the sparrow, which means

36. Compared with other people my sins

37. A Christian faces death

38. The difference between Jesus and other men

39. God's purpose for people

40. Punishment for sin

41. If you become a Christian your freedom

42. God's achievement of a final victory over evil in history

43. The way to handle temptation

44. Christians who let other people run over them

45. The voice of God

46. To the Christian material things

47. When someone accuses me of being a sinner, I

48. To deny oneself

49. Prayer

50. An open-minded Christian

51. The Bible verse, "every one who is angry with his
    brother shall be liable to judgment," to me means

52. Certainty in religion

53. To the Christian, money

54. The main message of the Bible

55. Billy Graham

56. The great commandment in the Bible teaches that
    loving oneself

57. A Christian who has doubts about God

58. If there is a judgment after death, and I am asked why
    I should be allowed into heaven, I would

59. To a Christian sickness means

60. When a person becomes a Christian learning more

61. I believe the way I do, because

62. People can stop sinning by

63. To obey Christ's commandment to love, means that feeling angry toward other people

64. Jesus Christ

65. People who do not attend church

66. The Bible verse, "every one who looks at a woman lustfully has already committed adultery with her in his heart," to me means

67. To say that Christ is the answer

68. To be humble a Christian must

69. Conquering my sins

70. I think of clergymen as

71. The effectiveness of private prayer depends on

72. When someone tries to persuade me to believe in Christ

73. When a person has faith, his fears

74. Evil in the world means that the goodness of God

75. I believe my relationship with God

76. I like sermons that

77. A Christian who feels discouraged

78. For a Christian, the flesh

79. My calling from God

80. When you have sinned, you should

81. An ambitious Christian

82. An emotional religious experience

83. The purpose of the church

84. To change human nature

85. The problems of Christians

86. Because of my relationship with God, I believe I am

87. To me the cross of Christ

88. The difference between my temptations, and the temptations of other people

89. Hell

90. If a church service is not interesting

91. A Christian who feels sexual desire

92. The failures of the church

93. Forgiving myself

94. People who pray in their battle with temptation

95. When I compare the way I look at religion with the way my mother looks at it

96. Reading the Bible

97. People who don't believe that they must give an account of themselves to God after death

98. When a Christian loses a loved one, grieving

99. Believing without understanding

100. Tests like this

   *At the beginning of this part of the survey you were asked to circle the number of any items that you were unable to complete.

   *Go back and complete any items which you may have omitted before going on to the next part.

APPENDIX D

RELIGIOUS INFORMATION QUESTIONNAIRE

<u>Instructions:</u>

Please do <u>not</u> put your name on this Religious
Information Questionnaire.

Please answer all questions.

If you are not clear on how to answer any of the
following questions, ask the administrator of the survey
for help.

1a. In the list below write the word "PAST" in the blank to

the <u>left</u> of the name that best describes: the strongest

religious or nonreligious influence upon you in the

past (choose <u>one</u> name only):

PAST   PRESENT
_____Agnosticism (I do <u>not know</u> whether God can be
          known or not)_____
_____Atheism (I do <u>not</u> believe in God)_____
_____Bhuddism_____
_____Confucianism_____
_____Eastern Orthodox Christianity_____
_____Hinduism_____
_____Islam (Muslim)_____
_____Judaism_____
_____Protestant Christianity (E.g., Assembly of God,
          Baptist, Christian, Christian Science, Church
          of Christ, Church of God, Congregational,
          Episcopal, Jehovah's Witnesses, Lutheran,
          Methodist, Mormon, Pentecostal, Presbyterian,
          Quaker, Salvation Army, Seventh Day Adventist,
          United Church of Christ, etc.)_____
_____Roman Catholic Christianity_____
_____Shintoism_____
_____Taoism_____
_____Unitarian Universalist (I consider myself part of
          Protestant Christianity)_____
_____Unitarian Universalist (I do <u>not</u> consider myself
          part of Protestant Christianity)_____
_____Zoroastrianism_____
_____Other (please be specific)_____

1b. In the list on the previous page (Question 1a) write the word "PRESENT" in the blank space to the right of the name that best describes your present nonreligious or religious belief (choose one name only).

2a. Are you a member of a church, synagogue, temple or other religious group? Yes_____; No_____.

2b. If you answered, "yes" to question 2a, what is the full name of the church, synagogue, temple or religious group of which you are a member? _____

_____

2c. How often do you attend church, synagogue, temple or other religious group? Never_____; Very Seldom_____; Once or twice a month_____; Once a week_____; More than once a week_____.

3. Which of the following do you believe best describes your view about religion (check one only): Nonbeliever_____; Undecided_____; Conservative_____; Liberal_____; Somewhere between Liberal and Conservative_____.

4. How often do you pray? More than once a day_____; Once a day_____; At least once a week_____; Very seldom_____; Never_____.

5a. How often do you read the Bible? (please answer
regardless of your religious position) Never____;
Very Seldom____; Weekly____; Daily____.

5b. If the Bible is not the sacred literature of your
religion: What is the sacred literature of your
religion (be specific, e.g. Koran, Torah, Tripitaka,
Vedas, etc.)? _____

5c. If the Bible is not the sacred literature of your
religion: How often do you read the sacred literature
of your religion? Never____; Very Seldom____;
Weekly____; Daily____.

6. I consider myself to be: Very religious____; of
Average Religiosity____; Not very religious____;
Neutral toward religion____; Against religion____.

APPENDIX E

RELIGIOUS SENTENCE COMPLETION INVENTORY
SCORING MANUAL

Scoring

Scoring of the Religious Sentence Completion Inventory (RSCI) requires that a decision be made as to whether or not a given response is psychologically unhealthy. Psychologically unhealthy responses are defined and determined by the categories and examples which are found in the RSCI Scoring Manual.

The meaning of a psychologically unhealthy response is defined separately for each sentence stem. The principles or categories for scoring one sentence stem may be different from the principles used to score another item. Furthermore, scorers should note that only 35 of the 100 sentence stems are evaluated for scoring (4, 8, 17, 24, 26, 28, 29, 31, 34, 36, 39, 41, 43, 46, 47, 49, 51, 56, 57, 58, 59, 63, 67, 69, 72, 73, 78, 85, 86, 88, 89, 91, 93, 97, and 98). The other 65 sentence stems do not need to be evaluated.

There should be sufficient grounds, based on the scoring manual categories and examples, for scoring a response as "one," otherwise score the response as "zero." In other words, if there is more doubt than confidence that a response should be scored as "one," the response should be

scored "zero." When a decision has been made to score a response as psychologically unhealthy, one point, and only one point is assigned to that response.

The sentence completion method may elicit a wide variety of responses for any given sentence stem. Therefore, it is _not_ _possible_ _to_ _include_ in the Scoring Manual _every_ _example_ of sentence completions which subjects may give. Thus the Scoring Manual may be used as a guide to determine whether a given response of a subject sufficiently approximates the principles or categories and examples found in the Scoring Manual to be scored as "one" or "zero."

Response _fragments_ are scored in the usual manner if a _complete_ _thought_ has been expressed. For example, "Temptation / is hard to overcome at times but with...." Even though the subject did not finish the sentence in a formal sense he has expressed a complete thought which in this case is scored "zero." Such response fragments therefore are _not_ considered to be omitted items, nor are they considered to be nonscorable responses (see below).

Responses which include _errors_ _in_ _spelling_ _grammatical_ _structure_ are scored if the scorer is able to make a good guess as to the meaning and intent of the subject. For example, "The unforgivable sin / is dieing." The scorer may assume that the subject made a spelling error and that his corrected response would be, "is dying," which would be

scored "one." Similarly, "My sins / is always forgiven," may be reasonable interpreted to mean, "My sins / are always forgiven," and scored "zero."

Responses which have been <u>crossed out</u> but which are still readable and scorable, are scored. For example, "Temptation / is-the-work-of-the-devil," is evaluated as if it had not been crossed out, and would be in this case scored "zero."

Responses which have been crossed out but which include, in addition, <u>uncrossed out revisions</u>: score uncrossed out revisions only. For example, "Temptation / is-the-work-of the-devil doesn't bother me," only the uncrossed out revision is scored and in this case is scored "one."

Omissions

It is important for scorers to note and add up all omissions since one to six omissions are prorated, and protocols with seven or more omissions are discarded (see below). Omissions are defined as sentence stems which have no written responses following the stem, whether or not sentence stem numbers have been circled. Sentence stems followed only by a slash (/) are also considered omissions.

Nonscored Responses

In addition to omissions it is important for scorers to note certain types of responses which are <u>not scored</u>.

Nonscored responses in the RSCI protocol are counted and mean that the protocol is either prorated or in some rare cases discarded (see below). Nonscored responses are defined as responses to sentence stems such as

> don't want to answer.
> I can't answer.
> don't know.
> unknown.
> no idea.
> don't understand.
> I haven't thought about it.
> no comment.
> no opinion.
> I can't speak for other Christians.
> I can't identify with this.
> ?
> !
> --------------. (line drawn after sentence stem)

The following are also considered nonscored responses. Response fragments with incomplete thought, e.g., "The unforgivable sin / is...." Errors in spelling and grammar where the scorer is unable to make a good guess as to the meaning and intent of the subject, e.g., "Temptation / is fishie. Illegible responses where a good guess cannot be made by the scorer as to the meaning or intent of the subject. Crossed out responses which are illegible or nonscorable by the above standards.

Caution: some responses are scored that should not be confused with the examples and principles outlined above for nonscored responses. Examples of responses which are scored but which may be confused with nonscored responses are:

24. If someone asks me if I have been saved /
I'd say I didn't know.

39. God's purpose for people / I don't know why
we are here.

58. If there is a judgment after death, and I am
asked why I should be allowed into heaven, I would /
not know what to say.

Treatment of Omissions and
Nonscored Responses

Whenever an RSCI protocol contains omissions and/or
nonscored responses, the following procedure should be
followed in sequence.

A. Discard protocols with seven (7) or more omissions.

B. Discard protocols with nineteen (19) or more
omissions and/or nonscored responses.

C. Prorate protocols with six (6) or less omissions.

D. Prorate protocols with six (6) or less omissions,
and in which there are eighteen (18) or less total omissions
and/or nonscored responses. Furthermore, when the total
omissions and/or nonscored responses ranges from seven (7)
to eighteen (18), points are added to the individual's
RSCI prorated score according to the following system:

Total Omissions and/or Nonscored Responses	Points Added to Prorated Score
7 - 8	1
9 - 10	2
11 - 12	3
13 - 14	4
15 - 16	5
17 - 18	6

The following examples illustrate the corresponding
capital letters of the general principles above concerning
the treatment of omissions and nonscored responses.

A. Example 1: protocol containing eight (8) omissions.
Discard protocol.

B. Example 2: protocol with five (5) omissions and
fifteen (15) nonscored responses. Total of twenty (20)
omissions and/or nonscored responses. Discard protocol.
Example 3: protocol with nineteen (19) nonscored responses.
Discard protocol.

C. Example 4: protocol with five (5) omissions and a RSCI
raw score of 9. Prorate:

$$\frac{\text{Total RSCI items scored}}{\text{Total RSCI items scored} - \text{number of omissions}}$$

$$X \quad \text{RSCI raw score}$$

$$= \frac{35}{35 - 5} \times 9 = \frac{35}{30} \times 9 = 10.499 \text{ (round off to 10)}$$

RSCI prorated score is 10.

D. Example 5: protocol with two (2) omissions and four
(4) nonscored responses, and RSCI raw score of 5. Total
omissions and nonscored responses is 6. Prorate:

Total RSCI items scored

Total RSCI items scored — Total omissions and non-scored responses

$\qquad$ X $\quad$ RSCI raw score

$$= \frac{35}{35 - 6} \text{ X } 7 = \frac{35}{29} \text{ X } 7 = 8.45 \text{ (round off to 8)}$$

RSCI prorated score is 8.

Example 6: RSCI protocol with four (4) omissions and twelve (12) nonscored responses, and a RSCI raw score of 6. Total omissions and nonscored responses is 16. Prorate:

Total RSCI items scored

Total RSCI items scored — Total omissions and/or nonscored responses

$\qquad$ X $\quad$ RSCI raw score

$$= \frac{35}{35 - 16} \text{ X } 6 = \frac{35}{19} \text{ X } 6 = 11.05 \text{ (rounded off to 11)}$$

RSCI prorated score is 11. Also, an addition is made to this prorated score. Points are added for total omission and/or nonscored responses ranging from seven (7) to eighteen (18). Thus in this case for sixteen (16) omissions and nonscored responses five (5) points are added to the already prorated score according to the system on the previous page. Finally, RSCI prorated score plus added points = 11 + 5 = 16 = RSCI total score.

4. Racial <u>integration</u> in the churches/

Score 1   Score 0

Prejudice   General
  should not exist   is a good idea
  I'm against it   is good
  should be allowed but   should be practiced more
    I'm too prejudiced   is needed
    to feel comfortable   is ok
    with it   should always have been
  is stupid
  is silly   means nothing because most
  why should we have to   people will remain
  they don't want it   prejudiced

                                   doesn't exist

                                   will be widely accepted in
                                     the future

8. My sins/

Score 1   Score 0

Denial   General
  are none   are many
  don't exist   are forgiven
  are not sins to me, but   are like the average
    probably are to other   persons
    people   are many but I am eager to
                                     repent
Minimizing
  are few
  are very few in my way
    of thinking

Neutralizing
  are relative to social
    norms

Obliteration
  must be demolished

Doubts about forgiveness
  will hopefully be
    forgiven

17. The unforgivable sin/

Score 1   Score 0

   Specific act or sin   Spiritual condition, shutting
     is murder   oneself off from God
     is taking God's name in   is blasphemy against the
       vain   Holy Spirit
     is hate   is rejecting Christ
     is hypocrisy   is placing yourself in a
     is to use a person   position where God cannot
     is not believing in God   get through to you
     is dying   is the sin that is not asked
                                     to be forgiven
   Guilty of, no hope
     is what I've done   Other
     no hope   can't be defined
                                   has not been discovered
                                   does not exist
                                   is none
                                   God can forgive all
                                   differs with different people

24. If someone asks me if I have been saved/

Score 1   Score 0

   Overdecisive   General
     I tell them I have   I say yes
       without a doubt   I say no
                                    I'd say I didn't know
                                    I really wouldn't know what
                                     to say
                                    I could not answer
                                    I hope so
                                    I ask them from what
                                    I ask them, "by whose
                                     terms?"
                                    I wonder
                                    I then begin to think about
                                     getting saved

26. Temptation/

Score 1   Score 0

Denial   General
  doesn't exist   is part of everyone's life
  I don't have any   is everywhere
  doesn't bother me   is hard to overcome
                                   is hard to overcome at times
Uncontrolled   but with the help of God
  is something to yield to   it is possible
  is good, everyone needs   is hard to defeat
    something   is strong in everyone's life
  is too great   is really hard to stay away
  is impossible to   from
    overcome   occurs all the time
                                   something you shouldn't do
Guilt   is often pleasant
  makes me feel guilty   is a normal want for
  makes me feel bad about   something
    myself   is not of God
  brings anxiety to the   is the work of the devil
    conscience   is desirable for growth

28. When I feel that God is not real/

Score 1   Score 0

Denial   General
  I never have this thought   I remember my faith is not
  I don't   based on my feelings
  is never   Whatever my feelings God is
                 still God
Overdisturbed   Feelings come and go
  I am doubting him   Something is missing in me,
  I feel guilty   not God
  I have a serious problem   It will pass
    I can't get out of   It usually means I've
  I get so scared I cry   neglected him
  I think I have lost my   He understands and remains
    mind   the same
                 I talk it over with him
                 I've lost touch temporarily
                 it tests my faith
                 I pray to him to strengthen
                  my faith
                 I don't worry about it
                 I don't feel ashamed
                 I think of all the good
                  things
                 is because things have gone
                  bad
                 when sadness hits me
                 is when I lose a loved one
                 I think about his word
                 I just think about it
                 I have the oddest feelings
                 I just look around

29. From a Christian point of view, drug pushers/

Score 1   Score 0

  Overly punitive   General
    don't deserve to live   should be stopped
    should be thrown out of   are bad and should be helped
      the country   and forgiven
    shot on sight   are wrong
    should be put in jail   are sinners
      for life   need help
    should be severely   should be punished
      punished   are helping users mess up
        their lives
        are tempters
        are workers of the devil
        are sinners and need to turn
          to God
        are in need of Jesus
        are probably non believers
        do not believe in God
        are people too
        are hurting his fellow man

31. When my conscience bothers me/

Score 1   Score 0

  Denial   General
    it doesn't   I try to straighten out in
        my mind what I have done
  Rejection   I try to find out why
    I ignore it   I try to think over how
    I work on my bicycle   serious it is
    I sublimate the feelings   I am usually doing the wrong
      and react the complete   thing
      opposite   I know I have done wrong
        I sometimes pray
  Neutralize   I pray and try to make it
    I rationalize it   right
    I realize it is because   I do what I have to do so it
      my environment has told   will stop bothering me
      me what I have done is   I usually dwell on it a
      not socially acceptable   while then let it go
        I ask God to forgive me
        I try to make things right
        I feel I may have been
          unfair to someone
        I stop doing what is wrong
        I am thankful

34. Resisting temptation with will power/

Score 1   Score 0

Loss of control   General
  doesn't work for me   is possible with God's help
  can't be done (unquali-   may not be enough in some cases,
    fied)   then we should ask God to
                                     strengthen our will
Near loss of control   can be done but is still hard
  is something I'm not too   to do
    good at   is good for those who can
  is something I've done   is hard
    once in my life   is a tough thing to do, I
                                     don't always succeed
No need to control   is hard but rewarding
  who wants to resis it?   will make smaller disciplinary
  if you can't beat it   actions easier
    join it   is one of man's most difficult
  is like not eating when   feats
    you are hungry   will make you feel better
                                   can be accomplished

36. Compared with other people my sins/

Score 1   Score 0

Denial   General
  don't exist   are just as bad
  are none   are no different
  mean nothing; sins are   are just as great
    relative   are just as many
                                   are probably the same
Much less   aren't any worse
  aren't that bad   are average
  are minor   are the same in God's eyes
  are not as bad as some   are about equal to theirs
    people's are   are the same but have been
  are few   atoned for by Christ
  are very small   are just as bad or worse
  are small   are probably entirely
  are few, but who am I to   different
    say

Much more
  are great
  are greater in number
Irrelevance and redundance
  are between God and I
  are my sins

39. God's purpose for people/

Score 1   Score 0

  Unknown (unqualified)   General
    is beyond me   is to love one another
    I don't know why we are   is to love him
     here   is unclear to me except that
    has yet to appear to me   they should love him
             is to be saved
  Unclear   is to live right
    is not clear to me   is to take care of his earth
     (unqualified)   is varied
  Destructive   is to spread the Gospel to
    is to kill each other   others
     off   is to live in harmony
             is to better their lives
             is for people to have their
              own purpose
             is to build a better world
             is to let them be free
             I really don't know, but God
              does desire all men to
              come to know Him
             is to trust in Jesus and have
              abundant life
             is to glorify God and enjoy
              him forever
             is to die and go to heaven,
              which is ridiculous
             is to survive on earth
             is his will according to his
              plan

41. If you become a Christian your freedom/

Score 1   Score 0

Loss of freedom to have or   General
do good   increases
  is taken away   expands
  is lost   is changed
  is none   is limited from doing wrong
  still don't have it   not kept from doing good
  is limited (unqualified)   to love others grows
  is severely limited   not kept from having good
    (unqualified)   things
                                   hasn't left you
Unlimited (unqualified)   does not change
  is unlimited   is the same as before
                                   is not really harmed
                                   is not taken away from you
                                   from Satan's influence will
                                     be greater
                                   is about the same
                                   is God's will
                                   is from sin
                                   perfect obedience to God is
                                     perfect freedom

43. The way to handle temptation/

Score 1   Score 0
                                 is to ask God to help you
Uncontrolled   conquer it
  is to succomb to it   is through prayer
  is to do what you feel   is to pray for strength
    like doing   is in the power of Christ
                                 is to not let it happen
Dismissal (unqualified)   cast it out of your mind and
  is to cast it out of   put your mind on what is
    your mind   good
                                 is up to you
Rationalize   is avoid it
  is to realize it may not   is to face it and decide what
    be an evil move   you want more--the right
                                   thing or the wrong thing
                                 confront it and conquer with
                                   God's help
                                 is to avoid tempting situations

46. To the Christian material things/

Score 1   Score 0

   Over rejection   General
     are not necessary   are a gift from God
     are not important   are fine as long as you put
     are irrelevant   God first
     are of no value   are subordinated to God's will
     wrong to possess   are meant for good but man
     are evil   often makes them evil
     don't count   are often needed
                                      are still important
                                      should not blot out their
                                        love for God
                                      shouldn't be the main focus
                                        of his life
                                      are good
                                      are transient
                                      should be of little importance
                                      are useless in heaven
                                      aren't really material things
                                      are as important as spiritual
                                        things

47. When someone accuses me of being a sinner, I/

Score 1   Score 0

   Denial   General
     can't agree   agree
                                       agree with them even though
   Defensive   sometimes it hurts
     ask who are they to   get mad but I know it is true
       judge me   ask God about it
     say it takes one to know   reply yes, no one has ever
       one   been without sin except
     tell them to mind their   Jesus
       own business   ask for some explanation
     take it as their personal   ask them what do they consider
       opinion   sin
     ask them what makes them   tell them they are probably
       think they are so   right
       perfect   just look at them
                                      say, everyone is a sinner

49. Prayer/

Score 1   Score 0

  Platitudes   General
    is good for the soul   is a way of talking to God
    is the answer   is helpful
                    is the answer to many
                      problems
                    can make you close to God
                    is comforting
                    is fantastic
                    is a very important part of
                      Christianity
                    in your own words is very
                      healthy for your mind
                    is a way of relieving
                      tension
                    is for fools
                    is not for me
                    is not useful to me

51. The Bible verse, "every one who is angry with his
    brother shall be liable to judgment," to me means/

Score 1   Score 0

Anger is wrong   General
  we shouldn't get angry   watch your inner feelings
  that being angry with   that when we get angry
    another person is evil   there is a danger that we
    in the sight of God   will sin and suffer the
  that its a sin to get   consequences
    mad at anybody

Reference to love, kindness,
niceness, etc. without
mention of a way to cope
with anger
  try to be nice to every-
    one
  that you should love
    everyone
  love your neighbor
  love thy brother in
    spite of what happens
  he is not practicing
    brotherly love

Complaints about stem
  that someone has jerked
    a verse out of
    context
  is incomplete
  nothing

Irrelevance
  every person is judged
    for his own sins but
    mine have been taken
    care of by Jesus

56. The great commandment in the Bible teaches that loving oneself/

Score 1   Score 0

Wrong   General
  is sinful   is not sinful
  is wrong   is permitted
  is selfish   is all right
  ain't too cool   is commanded
                                      is ok when its for God
                                      is approved by Christ
  is ok when its rightly
    understood and practiced
  may express one's love for
    God
  is not selfish
  is ok if its for the right
    self
  is ok if its the right kind
    of love
  is secondary to loving God
  helps you understand how to
    love your neighbor
  means that we should love
    others as much as ourselves
  is important
  is a guide to loving others
  should be equal to loving thy
    neighbor and less to loving
    God
  should take a back seat to
    loving your fellow man
  is needed to live
  is not as important as loving
    God
  is secondary to loving others
  comes last
  should be expressed by loving
    your neighbor
  is probably wrong, but to me
    its not
  is necessary to love others
  I don't know

57. A Christian who has doubts about God/

Score 1   Score 0

Not a Christian   General
  is not a Christian   is not uncommon
  is not truly a Christian   is very normal
  will not be one   is normal
  cannot be a true   is just human
    Christian   is the rule rather than the
    exception
  is still a Christian
  should do some soul searching
  should pray a lot
  is weak in his faith
  should ask for help to solve
    his doubts
  should find out why he has
    doubts
  should wonder why he is a
    Christian
  isn't really sure of himself
    or God
  should re-evaluate Christianity
  is probably more likely to be
    on the right track about God

58. If there is a judgment after death, and I am
    asked why I should be allowed into heaven,
    I would/

Score 1   Score 0

Self-justification   General
  answer because I have   say because I believe God in
    been as good as   his love will receive me
    anyone else   say because I believe in God
  say I lived a good life   say because of my belief in
  say that I committed no   Christ
    big evil on earth   answer because Jesus took my
  say that I treated   sins away
    everyone fairly   say because I accepted Jesus
  say because I am a   Christ into my life
    good person   say because I love and believe
  hope that my life would   in God
    prove how I have   reply God gave me eternal
    lived   life if I would only ask
  say that I want to be-   say I've believed and accepted
    cause "me" is what is   God into my heart
    important   say for I believe
  say because I love you   say because Jesus died for my
  say that I would try   sin and I accept humbly his
    to live accordingly   forgiveness
  say because I led my   say because Jesus Christ has
    life the only way I   taken my iniquity and I
    felt was right   accept his work

Self-rejection
  say because I don't
    belong
  say I'm not good
    enough
  say I'm unworthy
  say my sin is too great

Unable to answer
  not have an answer
  not answer
  not know the answer
  not know what to say

Other
  ask why does heaven
    exist
  say because I've already
    lived in hell all
    my life
  say I'm afraid of hell
  say I'm not a sinner often
    and I believe in an after
    life

59. To a Christian sickness means/

Score 1   Score 0

   Redundancy   General
     sickness   being in sin
     illness   God's will
     being ill   punishment
     that someone is ill   losing faith with God
                             what it means to any other
                              person

The text in the Score 0 column continues:

- being in sin
- God's will
- punishment
- losing faith with God
- what it means to any other person
- people have drifted away from God
- nothing
- a physical or mental ailment
- prayer
- strengthening of faith
- you haven't been taking care of yourself
- spiritual sickness
- that it must have been something you ate
- a sign that the body is not all important
- that he better see a doctor
- God as your doctor
- a natural event that has to happen sometime due to the chaos around in the world since the Fall
- having to pray and join with people to make things better
- not to be afraid

63. To obey Christ's commandment to love, means
that feeling angry toward other people/

Score 1   Score 0

Denial   General
  is not possible   is wrong
  should never come about   is a sin
  doesn't exist   is bad
  won't happen   is not right
                                 is natural, but don't let it
                                   last long
                                 is not loving
                                 is normal
                                 is not acceptable
                                 isn't the right way to feel
                                   or act
                                 should be suppressed
                                 can be wrong
                                 is natural but forgive and
                                 forget
                                 is something to be worked on
                                 can't solve anything
                                 is to care about other people
                                 is still a basic human emotion
                                   but you still forgive in
                                   the end
                                 is wrong but it will happen
                                 would all be forgiven
                                 is normal but you must
                                   reconcile with them

67. To say that Christ is the answer/

Score 1   Score 0

Dogmatic agreement   General
  is the only way to   is what some people believe
    look at things   is one alternative to the
      troubles of life
    is right for some people
    is to say that Christ is the
Assumption that statement   way to heaven
is dogmatic   shouldn't be forced on
  is being dogmatic   anyone
    raises a question: "the
      answer to what?"
    is not telling the truth
    is right to a certain
      degree
    is an over simplified
      version of salvation
    is all you need
    isn't good because you
      yourself and Christ and
      other people are the
      answer
    is the truth
    is as right as saying there
      is no answer
    means Christ is the mediator
      between God and men
    means no matter what the
      problem he's there
    is a good thing for some
      people but not all
    is heard a lot in sermons
    is that Christ knows the way
    may be a way of not looking
      at the problem realistically
    is saying he is the way, the
      truth and the life
    does not help an immediate
      problem
    is not always right
    is correct if you have a
      problem of wanting
      something to make life
      worth living

69. Conquering my sins/

Score 1   Score 0

No need to   General
  is stupid   is difficult
  no need to   would be hard
  why should I?   is a big task
  would be hazzardous to   would take a lifetime
    my health   is never easy
                     is impossible
                     is not forseeable in the near
                       future
Extreme hardship   is too big a job for me alone
  is hell   is accomplished only through
                       Christ's help
                     is possible with the help of
                       God
                     is my task with God's help
                     is possible through Christ
                     is what Christ did
                     has been done by Christ
                     doesn't worry me
                     is all in my mind
                     would be a great victory
                     is a must
                     is making me closer to God
                     I hope I can
                     is strictly up to the
                       definition of sin

72. When someone tries to persuade me to believe in Christ/

Score 1   Score 0

Overreation against   Honest admission of feelings
persuasion   I find it hard to take
   I don't listen   I usually get very
   I just turn my   defensive
     attention away
   I turn off
   I don't always listen
   I don't always listen,   Non-dogmatically or
     although I should   respectfully decline or accept
   I tell them to practice   I listen
     what they preach   I listen but I have my own
   I tell them I already   feelings
     do, do you?   I listen, and proceed with
                                      what I was doing before
                                      they showed
                                  I politely excuse myself
                                  I say I'm okay, you're okay,
                                      and then walk off
                                  I listen to why they feel
                                      this way

                              Other
                                  I say I already do
                                  I already believe in Him and
                                      am glad to find a "brother"
                                      or "sister" in Christ
                                  I listen and agree
                                  I don't need to be persuaded
                                  I usually give it some
                                      thought
                                  I ask them to give me a
                                      reason why

73. When a person has faith, his fears/

Score 1   Score 0

Denial   General
  nothing   still come, and still need to
  are nonexistent   be conquered
  are gone   are not completely gone
  are ended   are lessened
  unnecessary because God   are still there
    is in control   are as real as anyone elses
                                   are still real
                                   for the most part are still
Underestimation   there but many of them are
  will soon disappear   taken care of by his faith
  should be few   are controllable
  are few in number   will be helped to be over-
  can easily be conquered   come
                                   decrease
                                   still exist
                                   has something to lean on
                                   are not so hard on him
                                   are not as great as a person
                                     without faith
                                   have supposedly diminished
                                   disappear sometimes
                                   are multiplied tenfold

78. For a Christian, the flesh/

Score 1   Score 0

Evil (unqualified)   General
  is sinful   is good only when in a
  is the sinful nature   Christian manner
                                   is not as good as the
                                     unknown
                                   is a house for us while we
                                     are on the earth
                                   is the temporary container of
                                     his soul in this world
                                   is secondary to the soul
                                   is minor--its the soul that
                                     counts
                                   is a cover for the soul
                                   is of God
                                   is sacred
                                   is weak
                                   is merely a passing thing
                                   is something to be covered
                                     by clothing
                                   is only physical
                                   is giving into material
                                     temptations
                                   is an important thing
                                   is the flesh
                                   is Jesus' body
                                   is done in rememberance of
                                     God
                                   has the same meaning that it
                                     has for other people
                                   in the context of Paul
                                     represents the ways that
                                     are not of God
                                   is part of the integumentary
                                     system
                                   can be hurt
                                   don't know
                                   is not important
                                   is unimportant

85. The problems of Christians/

Score 1	Score 0

Denial
   they don't have problems
   no problems

Minimizing
   are few compared to others
   are fewer than those
     who aren't

General
   are no different than
     anyone else's
   are the same as anybody's
   are different because they
     know where the answer
     lies
   are many
   is their failure to see
     their mistakes
   is that they are afraid to
     do what God wants them
     to do
   are they lack faith in God
   is that few are really
     sincere
   is not being strong enough
     Christians
   is narrow-mindedness
   is that they are not true
     Christians
   are none that can't be
     handled with a little
     help from God
   is that it's hard to
     sacrifice today for a
     reward that may be many
     tomorrows away
   is that there is not
     enough of them
   is that they have yet to
     discover the meaning of
     a true Christian
   is that they are too often
     hypocrites
   is they try to make
     everyone believe and
     they can't
   many are not real
     Christians

86. Because of my relationship with God, I believe I am/

Score 1   Score 0

  Overly special   General
    more favored by God   part of God's family
      than others   one of God's children
    more fortunate than the   richly blessed
      non-Christians   beginning to understand God's
    unique   love for me
                                  a little better person
                                  as good as anyone else
                                  free to make the most of my
  Uncertainty, confusion   life
    totally in the dark   able to give back something
    a person who is a   to him in return for what
      little mixed up now   he has done for me
                                  trying to live a good life
                                  in good standing
  Overly negative   saved
    destined to hell   going to be saved
    cast into the outer   far from a real Christian
      darkness   Christian
    possessed by the devil   a good person
                                  honest with him and myself
                                  going to heaven
                                  a minority
                                  an average person
                                  with him
                                  saved in my heart
                                  right before him
                                  to be rewarded with life
                                    after death

88. The difference between my temptations, and the
temptations of other people/

Score 1   Score 0

Very different   General
  are pretty large   are few
  they just aren't like   are no different
    mine   are pretty much the same
  no one could understand   are very minor
    what I go through   is zero
  is that mine are more   are nil
    sinful   are the same, it is the
  is that my desires are   responses that are
    different from theirs   different
Uncontrolled   is that my temptations are
  is that I try to fulfill   mine and yours are yours
    mine   there is no difference, its
  is that I yield   in how you deal with them
  is that I yield and   is that they are my
    seldom feel guilty   temptations
                             are the same from the
More control than others   devil
  is that I have greater   are none
    will power to control   is probably not really
    them   different
                             is that they are testing me
                               as to whether I'm a
                               Christian

89. Hell/

Score 1   Score 0

Platitude   General
  is fire and brimstone   for sinner's who won't
  is fire and torment   accept God's love
  is burning   when a person is unwilling
    to accept God's love
  is the place unbelievers go
    after death
For sinners (unqualified)   is when your sins aren't
  is for sinners   forgiven
  is a place for sinners   is not a place but a feeling
    unbelieving sinners get
  separation from God
Hostile consignment   is a place of eternal
  is where some people   separation from God
  ought to be now   its not God's will that any
    should perish
  is not a good place to go
Lack of love   is where I don't want to go
  is the ungodly   is the place where no one
  is other people   wants to go
  was once a part of heaven
  is on earth
  is the Devil's home
  is the Devil's heaven
  is experienced by some
    people everyday
  being apart from God
  is horrible
  is punishment
  like heaven is no specific
    area
  exists if you believe it
    exists
  is an abstract term
  is a real place, but I'm
    undecided as to who will
    occupy it
  doesn't exist
  does not exist, I pray
  is in your mind
  is a place for Satan and his
    followers
  no one knows if it exists or
    not
  is make believe

91. A Christian who feels sexual desire/

Score 1

Denial
  doesn't feel it
  doesn't have any
  doesn't exist
  I don't have any
  none
  doesn't
  is not possible
  won't happen
  can't happen

Wrong
  shouldn't
  shouldn't feel that way
  isn't a Christian

Score 0

General
  is normal
  is a normal human being
  is a normal Christian
  is human
  needs not to worry
  is not sinning
  should overcome it through
    marriage or God or both
  is blessed under marriage
  should pray and conquer his
    his desires
  is a normal person, as long
    as the desire isn't too
    great
  is ok if he doesn't let it
    get out of control
  should relieve his desires
  is healthy
  this is a temptation of the
    devil
  sex can be beautiful

93. Forgiving myself/

Score 1   Score 0

Over disturbed   General
  much crying and   is sometimes hard to do
    sleepless nights   can be difficult
                              means nothing unless God does
                              comes after God's forgiveness
Impossible   is easier when I know God is
  can't be done   forgiving me also
  impossible   helps
  I just can't   is easy
                              for things is not as important
                                as God forgiving them
Ridiculous   is great if God does too
  is ridiculous   is what I do if I feel I
  is silly   should
                              is wrong, only God can
                                forgive us
                              should be asked of God
                              takes a lot of courage
                              is harder than being forgiven
                                by others
                              is natural
                              depends on what needs to be
                                forgiven
                              helps me to rationalize my
                                wrong doings

97. People who don't believe that they must give an
    account of themselves to God after death/

Score 1   Score 0

Overreaction   General
  are hell bound   shouldn't have to believe it
  are crazy   know just as much about
                                     death as anyone else
                                   are kind of like me
                                   are being realistic
                                   believe the way I do
                                   shouldn't be looked down upon
                                   is their right to believe
                                     that
                                   are welcome to think that way
                                   are fooling themselves
                                   are going to have a big
                                     surprise
                                   are the ones that are
                                     probably going to be too
                                     embarrassed to do so
                                   are badly mistaken
                                   shall regret when it is too
                                     late
                                   should read their Bible
                                   are ignoring their sins and
                                     are probably very guilty
                                   are being bold when they
                                     should be humble
                                   don't believe his written
                                     words
                                   are sinners and the devil
                                     has got them
                                   are in great number
                                   that's their opinion
                                   don't care about the present
                                     life
                                   have their own beliefs
                                   realize it would be useless
                                   are as accurate as anyone
                                     else
                                   don't believe in God
                                   are not Christians
                                   have not been raised in the
                                     Presbyterian Church!

98. When a Christian loses a loved one, grieving/

Score 1   Score 0

Denial   General
  should not be present,   is still hard
    only joy   is only natural
  is unnecessary   is only natural, but comfort
  should be happiness   is there
    instead   is healthy, but not over a
                long period of time
Wrong   should not consume his whole
  is wrong   life
  should be omitted   is normal
  is not what God wants   is not quite as hard because
  is unChristian   of God's help
  is not acting like a   is not as hard
    true Christian   expresses how he felt
                won't bring him back
Minimize   is natural and God helps them
  is easy to bear   along
  doesn't bother him   should be done
                relieves pressure
                is understandable
Cannot be resolved   is not shameful
  never stops   is good for himself
  you never get over it   is good to talk over with
  no reason for living   someone who understands
  no reason for going on   is not the chief function
  life is over   but being happy for him is
                comes because it hurts
                sometimes weakens his faith
                  in God
                is human nature, yet he
                  should have faith enough to
                  know that he will meet the
                  dead after his death

APPENDIX F

RELIGIOUS SENTENCE COMPLETION INVENTORY SCORING FORM (reduced from 8½ x 11)

RELIGIOUS SENTENCE COMPLETION INVENTORY

BLUE = BLUE NUMBER ON RSCI PROTOCOL

RED = RED NUMBER ON RSCI PROTOCOL

RAW = RAW SCORE

OMIS = OMISSIONS

NON = NONSCORED RESPONSES

O+N = OMISSIONS PLUS NONSCORED RESPONSES

35 = O+N = 35 (TOTAL ITEMS) MINUS (OMISSIONS PLUS NONSCORED RESPONSES)

PRO = PRORATED SCORE

ADD = ADDED POINTS

TOT = TOTAL SCORE

1 = RESPONSE SCORED "ONE"

— = RESPONSE SCORED "ZERO"

O = OMITTED RESPONSE

N = NONSCORED RESPONSE

X = DISCARDED PROTOCOL, "PLACE IN "TOT" COLUMN"

APPENDIX G

SUPPLEMENTARY TABLES

TABLE G.1

2 x 2 ANALYSIS OF VARIANCE OF MMPI FK TOTAL SCORES, CHURCH MEMBERSHIP, AND SEX

		Church Membership		
		Members	Nonmembers	Total
Males	$\underline{N}$	33	17	50
	$\underline{SD}$	6.58	6.46	6.52
	Means	20.67	22.18	21.18[a]
	Difference		1.51	
Females	$\underline{N}$	46	7	53
	$\underline{SD}$	6.25	6.75	6.27
	Means	17.89	16.43	17.70[b]
	Difference		1.46	
Total	$\underline{N}$	79	24	103
	$\underline{SD}$	6.50	6.93	6.60
	Means	19.05	20.50	19.39
	Difference		1.45	

*$p < .05$

[ab]Difference between row means for Males and Females = 3.48, $\underline{p} < .05$.

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TABLE G.2

SUMMARY OF 2 x 2 ANALYSIS OF VARIANCE (UNWEIGHTED
MEANS) OF MMPI FK TOTAL SCORES, CHURCH
MEMBERSHIP, AND SEX

Source of Variation	SS	df	MS	F	p
Sex	286.3203	1	286.3203	6.94	.01
Church Membership	0.0087	1	0.0087	.00	.99
Interaction	34.8253	1	34.8253	.84	.36
Within	4085.9747	99	41.2725	. . .	. .
Total	4207.1290	102	. . . .	. . .	. .

TABLE G.3

2 x 5 ANALYSIS OF VARIANCE OF MMPI FK TOTAL SCORES,
CHURCH ATTENDANCE, AND SEX

		Church Attendance					
		More Than 1/Week	1/Week	1 or 2 /Month	Very Seldom	Never	Total
Males	$\underline{N}$	9	9	6	17	9	50
	$\underline{SD}$	5.49	6.06	6.60	7.88	5.40	6.52
	Means	21.22	18.44	22.50	21.29	22.78	21.18[a]
	r=2[c]	2.78	4.06	1.21	1.48		
	r=3[c]	1.28	2.85	0.28			
	r=4[c]	0.07	4.33				
	r=5[c]	1.56					
Females	$\underline{N}$	16	11	10	11	5	53
	$\underline{SD}$	6.47	5.46	4.88	7.58	7.09	6.27
	Means	16.25	20.00	18.30	16.27	19.20	17.70[b]
	r=2[c]	3.75	1.70	2.03	2.93		
	r=3[c]	2.05	2.72	0.90			
	r=4[c]	0.02	0.80				
	r=5[c]	2.95					
Total	$\underline{N}$	25	20	16	28	14	103
	$\underline{SD}$	6.49	5.64	5.76	8.02	6.05	6.60
	Means	18.04	19.30	19.88	19.32	21.50	19.39
	r=2[c]	1.26	0.58	0.55	2.18		
	r=3[c]	1.84	0.02	1.63			
	r=4[c]	1.28	2.20				
	r=5[c]	3.46					

*$\underline{p}$< .05

[ab]Difference between row means for Males, and Females = 3.48, $\underline{p}$< .01.

[c]r = number of steps between means; row data represents the difference between means, and significant differences were determined by the Newman-Keuls test.

TABLE G.4

SUMMARY OF 2 x 5 ANALYSIS OF VARIANCE (UNWEIGHTED
MEANS) OF MMPI FK TOTAL SCORES, CHURCH
ATTENDANCE, AND SEX

Source of Variation	SS	df	MS	F	p
Sex	238.3677	1	238.3677	5.69	.02
Church Attendance	74.7215	4	18.6804	0.45	.78
Interaction	136.9133	4	34.2283	0.82	.52
Within	3894.4446	93	41.8757	. . . .	. .
Total	4344.4471	102	. . . .	. . . .	. .

TABLE G.5

2 x 5 ANALYSIS OF VARIANCE OF MMPI FK TOTAL SCORES,
PRAYER FREQUENCY, AND SEX

		Prayer Frequency					
		More Than 1/Day	1/Day	At Least 1/Week	Very Seldom	Never	Total
Males	N	13	9	11	9	8	50
	SD	6.26	6.23	5.26	6.50	7.76	6.52
	Means	23.31	19.89	17.45	22.67	22.63	21.18[a]
	r=2[c]	3.42 2.43 5.21 0.04					
	r=3[c]	5.85 2.78 5.17					
	r=4[c]	0.64 2.74					
	r=5[c]	0.68					
Females	N	16	11	11	9	6	53
	SD	6.80	7.23	4.66	5.27	7.31	6.27
	Means	16.69	18.00	20.45	16.67	16.33	17.70[b]
	r=2[c]	1.31 2.45 3.79 0.33					
	r=3[c]	3.77 1.33 4.12					
	r=4[c]	0.02 1.67					
	r=5[c]	0.35					
Total	N	29	20	22	18	14	103
	SD	7.27	6.69	5.08	6.52	7.97	6.60
	Means	19.66	18.85	18.95	19.67	19.93	19.39
	r=2[c]	0.81 0.10 0.71 0.26					
	r=3[c]	0.70 0.82 0.97					
	r=4[c]	0.01 1.08					
	r=5[c]	0.27					

*p< .05
**p< .01

[ab]Difference between row means for Males, and
Females = 3.48, p< .01.

[c]r = number of steps between means; row data represents
the difference between means, and significant differences
were determined by the Newman-Keuls test.

TABLE G.6

SUMMARY OF 2 x 5 ANALYSIS OF VARIANCE (UNWEIGHTED
MEANS) OF MMPI FK TOTAL SCORES, PRAYER
FREQUENCY, AND SEX

Source of Variation	SS	df	MS	F	p
Sex	305.5166	1	305.5166	7.60	.01
Prayer Frequency	16.2002	4	4.0500	0.10	.98
Interaction	330.7457	4	82.6864	2.06	.09
Within	3739.7585	93	40.2125	. . .	. .
Total	4392.2210	102	. . . .	. . .	. .

TABLE G.7

2 x 5 ANALYSIS OF VARIANCE OF MMPI FK TOTAL SCORES, BIBLE READING FREQUENCY, AND SEX

		Bible Reading Frequency				
		Daily	Weekly	Very Seldom	Never	Total
Males	N	4	14	24	8	50
	SD	5.45	6.53	5.97	7.39	6.52
	Means	24.50	17.86	22.42	21.63	21.18[a]
	r=2[c]	6.64		4.56	0.79	
	r=3[c]		2.08		3.77	
	r=4[c]			2.87		
Females	N	5	13	25	10	53
	SD	3.56	7.24	6.31	5.27	6.27
	Means	15.80	17.38	19.32	15.00	17.70[b]
	r=2[c]	1.58		1.94	4.32	
	r=3[c]		3.52		2.38	
	r=4[c]			0.80		
Total	N	9	27	49	18	103
	SD	6.20	7.24	6.31	5.27	6.27
	Means	19.67	17.63	20.84	17.94	19.39
	r=2[c]	2.04		3.21	2.89	
	r=3[c]		1.17		0.31	
	r=4[c]			1.72		

*$p < .05$

[ab]Difference between row means of Males, and Females = 3.48, $p < .01$.

[c]r = number of steps between means; row data represents the difference between means, and significant differences were determined by the Newman-Keuls test.

TABLE G.8

SUMMARY OF 2 x 4 ANALYSIS OF VARIANCE (UNWEIGHTED
MEANS) OF MMPI FK TOTAL SCORES, BIBLE READING
FREQUENCY, AND SEX

Source of Variation	SS	df	MS	F	p
Sex	394.4568	1	394.4568	10.05	.002
Bible Reading Frequency	123.0713	3	41.0238	1.04	.38
Interaction	177.4356	3	59.1452	1.51	.22
Within	3729.7395	95	39.2604	. . .	. .
Total	4424.7032	102	. . . .	. . .	. .

TABLE G.9

2 x 2 ANALYSIS OF VARIANCE OF RSCI RAW SCORES,
CHURCH MEMBERSHIP, AND SEX

		Church Membership		
		Members	Nonmembers	Total
Males	N	33	17	50
	SD	4.04	3.25	3.90
	Means	7.58	9.76	8.32[a]
	Difference		2.19	
Females	N	46	7	53
	SD	2.91	3.58	2.99
	Means	7.02	8.14	7.17[b]
	Difference		1.12	
Total	N	79	24	103
	SD	3.41	3.36	3.49
	Means	7.25	9.29	7.73
	Difference		1.59*	

*$p < .05$

[ab]Difference between row means for Males and
Females = 1.15, $p < .05$.

TABLE G.10

SUMMARY OF 2 x 2 ANALYSIS OF VARIANCE (UNWEIGHTED
MEANS) OF RSCI RAW SCORES, CHURCH
MEMBERSHIP, AND SEX

Source of Variation	SS	df	MS	F	p
Sex	18.6597	1	18.6597	1.61	.21
Church Membership	43.1831	1	43.1831	3.72	.06
Interaction	4.4941	1	4.4941	0.39	.54
Within	1148.9548	99	11.6056	. . .	. .
Total	1215.2917	102	. . . .	. . .	. .

TABLE G.11

2 x 5 ANALYSIS OF VARIANCE OF RSCI RAW SCORES, CHURCH ATTENDANCE, AND SEX

		Church Attendance					
		More Than 1/Week	1/Week	1 or 2 /Month	Very Seldom	Never	Total
Males	$\underline{N}$	9	9	6	17	9	50
	$\underline{SD}$	3.64	0.58	2.50	3.26	3.84	3.90
	Means	6.67	9.33	8.33	7.00	11.44	8.32[a]
	$r=2^c$	2.67	1.00	1.33	4.44*		
	$r=3^c$	1.67	2.33	3.11			
	$r=4^c$	0.33	2.11				
	$r=5^c$	4.78					
Females	$\underline{N}$	16	11	10	11	5	53
	$\underline{SD}$	2.85	3.47	3.31	1.50	3.91	2.99
	Means	7.13	6.64	7.50	6.36	9.60	7.17[b]
	$r=2^c$	0.49	0.86	1.14	3.24		
	$r=3^c$	0.38	0.27	2.10			
	$r=4^c$	0.76	2.96				
	$r=5^c$	2.48					
Total	$\underline{N}$	25	20	16	28	14	103
	$\underline{SD}$	3.09	4.13	2.97	2.69	3.83	3.49
	Means	6.96	7.85	7.81	6.75	10.79	7.73
	$r=2^c$	0.89	0.04	1.06	4.04**		
	$r=3^c$	0.85	1.10	2.97*			
	$r=4^c$	0.21	2.94*				
	$r=5^c$	3.83**					

*$\underline{p} < .05$

**$\underline{p} < .01$

[a][b]Difference between row means for Males and Females = 1.15, $\underline{p} > .05$.

[c]r = number of steps between means; row data represents the difference between means, and significant differences were determined by the Newman-Keuls range test.

TABLE G.12

SUMMARY OF 2 x 5 ANALYSIS OF VARIANCE (UNWEIGHTED
MEANS) OF RSCI RAW SCORES, CHURCH
ATTENDANCE, AND SEX

Source of Variation	SS	df	MS	F	p
Sex	27.9505	1	27.9505	2.55	.11
Church Attendance	169.0729	4	42.2682	3.86	.01
Interaction	26.3721	4	6.5930	0.60	.66
Within	1018.0965	93	10.9473	. . .	. .
Total	1241.492	102	. . . .	. . .	. .

TABLE G.13

2 x 5 ANALYSIS OF VARIANCE OF RSCI RAW
SCORES, PRAYER FREQUENCY, AND SEX

		Prayer Frequency					
		More Than 1/Day	1/Day	At Least 1/Week	Very Seldom	Never	Total
Males	N	13	9	11	9	8	50
	SD	2.81	2.96	3.49	5.40	3.34	3.90
	Means	5.62	8.44	9.18	9.11	10.50	3.32^a
	r=2[c]	2.83	0.74	0.07	1.39		
	r=3[c]	3.57	0.67	1.32			
	r=4[c]	3.50	2.06				
	r=5[c]	4.88*					
Females	N	16	11	11	9	6	53
	SD	2.47	3.03	3.35	1.13	4.13	2.99
	Means	5.69	8.00	8.27	6.44	8.67	7.17^b
	r=2[c]	2.31	0.27	1.83	2.22		
	r=3[c]	2.59	1.56	0.39			
	r=4[c]	0.76	0.67				
	r=5[c]	2.98					
Total	N	29	20	22	18	14	103
	SD	2.58	2.93	3.37	4.02	3.67	3.49
	Means	5.66	8.20	8.73	7.78	9.71	7.73
	r=2[c]	2.54*	0.53	0.95	1.94		
	r=3[c]	3.07**	0.42	0.99			
	r=4[c]	2.12*	1.51				
	r=5[c]	4.06**					

*p < .05
**p̄ < .01

[a,b]Difference between row means for Males and Females = 1.15, p > .05.

[c]r = number of steps between means; row data represents the difference between means, and significant differences were determined by the Newman-Keuls range test.

TABLE G.14

SUMMARY OF 2 x 5 ANALYSIS OF VARIANCE (UNWEIGHTED
MEANS) OF RSCI RAW SCORES, PRAYER
FREQUENCY, AND SEX

Source of Variation	SS	df	MS	F	p
Sex	32.2276	1	32.2276	3.03	.09
Prayer Frequency	166.8046	4	41.7011	3.92	.01
Interaction	23.2196	4	5.8049	0.56	.70
Within	988.9993	93	10.6344	. . .	. .
Total	1211.2511	102	. . . .	. . .	. .

TABLE G.15

2 x 4 ANALYSIS OF VARIANCE OF RSCI RAW SCORES, BIBLE READING FREQUENCY, AND SEX

		Bible Reading Frequency				
		Daily	Weekly	Very Seldom	Never	Total
Males	$\underline{N}$	4	14	24	8	50
	$\underline{SD}$	2.06	3.34	4.24	3.81	3.90
	Means	5.25	8.07	8.29	10.38	8.32[a]
	$r=2^c$		2.82	0.22	2.08	
	$r=3^c$		3.04	2.30		
	$r=4^c$		5.13			
Females	$\underline{N}$	5	13	25	10	53
	$\underline{SD}$	2.92	2.72	3.08	3.20	2.99
	Means	7.00	6.08	7.72	7.30	7.17[b]
	$r=2^c$		0.92	1.64	0.42	
	$r=3^c$		0.72	1.22		
	$r=4^c$		0.30			
Total	$\underline{N}$	9	27	49	18	103
	$\underline{SD}$	2.59	3.17	3.66	3.73	3.49
	Means	6.22	7.11	8.00	8.67	7.73
	$r=2^c$		0.89	0.89	0.67	
	$r=3^c$		1.78	1.56		
	$r=4^c$		2.44			

*$p < .05$
**$\underline{p} < .01$

[ab]Difference between row means of Males and Females = 1.15, $\underline{p} > .05$.

[c]r = number of steps between means; row data represents the difference between means, and significant differences were determined by the Newman-Keuls range test.

TABLE G.16

SUMMARY OF 2 x 4 ANALYSIS OF VARIANCE (UNWEIGHTED
MEANS) OF RSCI RAW SCORES, BIBLE READING
FREQUENCY, AND SEX

Source of Variation	$\underline{SS}$	$\underline{df}$	$\underline{MS}$	$\underline{F}$	$\underline{p}$
Sex	16.7303	1	16.7303	1.43	.24
Bible Reading Frequency	72.7724	3	24.2575	2.07	.11
Interaction	57.6239	3	19.2080	1.64	.19
Within	1114.5750	95	11.7324	. . .	. .
Total	1261.7016	102	. . . .	. . .	. .

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