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An Empirical Examination of the Construct Validity of the Spiritual Leadership Qualities Inventory

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An Empirical Examination
of the Construct Validity of
the Spiritual Leadership Qualities Inventory

by

Thomas G. Parker, Jr.

Presented to the Faculty of
Western Conservative Baptist Seminary
in partial fulfillment
of the requirements of the degree of
Doctor of Philosophy
in Clinical Psychology

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An Empirical Examination
of the Construct Validity of
the Spiritual Leadership Qualities Inventory

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DISSERTATION ABSTRACT

The The Spiritual Leadership Qualities Inventory (SLQI) is a self-report measure of the qualifications for elders and deacons given in I Timothy 3 and Titus 1. This study examined the construct validity of the SLQI by means of correlations with measures of religiosity and personality inventories, and by factor analysis at the subscale level for 90 male, evangelical, Christian seminary students in the Southwest.

A one-way analysis of variance on sample groups (two random and one nonrandomly selected) produced evidence of a very homogenous sample and no evidence of sampling bias. Correlations to the Spiritual Well-Being scale, the Religious Orientation scale, the Interpersonal Behavior Survey, and the Minnesota Multiphasic Personality Inventory were accurately predicted at a marginal level. Principle components factor analysis rotated to a Varimax solution produced a five-factor explanation of the SLQI that was intuitively feasible. However, a large percentage of the total variance of the SLQI was attributed to one factor. A confirmatory factor analysis using the multiple groups technique suggests that a two factor

explanation (a large "general" and a smaller "specific" factor (s)) best explains the structure of the SLQI.

The SLQI needs considerable further development in order to reliably and accurately quantify the constructs it measures. At this stage of development, the SLQI should be limited to research designed to improve its psychometric qualities. Based on these findings and the paucity of present validity studies for this instrument, it is suggested that further development focus on a reexamination of the exegesis of the passages under consideration, item level analysis, and finally reliability and validity studies. Further research into using biblical constructs to develop measures of spiritual maturity and leadership is encouraged.

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CHAPTER 1

Introduction

The science of psychological testing by means of self-report inventories has become an accepted form of evaluation in spheres that range from the academic arena to the court system. Concomitantly, as the psychological assessment of personality constructs becomes more exact and thus more useful, seminaries, churches, and religious organizations are increasingly examining the possible uses of objective testing for specific beliefs and behaviors for their students, members, and employees.

In particular, the evaluation and selection of leadership within the religious domains, as well as the identification and measurement of characteristics conducive to religious leadership development, are concerns which could be greatly enhanced through the development and employment of objective instruments. For example, church leaders (deacons, elders, pastors) are often selected on the basis of vaguely defined criteria such as reputation, prejudice, or social status. There is a clear need for churches which endorse biblical values to compliment the process of

leadership development and selection through objective means. Self-report inventories designed to quantify these values can increase the effectiveness of leadership development and selection.

In a discussion concerning personality and leadership selection within evangelical Christianity, Kotesky (1980) notes

Credentials can be positive or negative and include educational records, criminal records, mental health records, work records, test scores, awards, publications, and merit badges earned in Boy Scouts. Credentials are often the primary basis for judgement in our society and are becoming increasingly important in the church. Individuals must have a seminary degree from the "right" seminary. To get into that seminary, they had to have the right IQ scores, the right personality scores on tests, and the right college credentials. To get the right college credentials, they had to have the right high school credentials, etc. Thus our church leaders are now chosen by a series of gatekeepers . . . The Bible is quite specific about the qualifications of church leaders . . . We must . . .

develop "tests" to measure the God-like aspects of humans. We may even want to develop measures of spiritual maturity. (pp. 129-130)

This study is an examination of the construct validity of one such instrument, the Spiritual Leadership Qualities Inventory (Wichern, 1980), for a sample of male evangelical seminary students. This chapter will review the pertinent literature, give the rationale and purpose of the study, and state the hypotheses and questions to be tested.

Review of the Literature

An understanding of the historical emphasis and de-emphasis of the psychology of religion during the past century by professional psychologists is essential in providing perspective to the present revival of interest in theoretical treatises and empirical investigations in this field. As a consequence of the growing attention afforded to the construct of religiosity by the sphere of psychological research, measures of religiosity, and in particular self-report inventories, have increasingly appeared in psychological literature. In order to provide this perspective, the literature will be reviewed in two

areas: (a) the history of psychology of religion and
(b) the measurement of religiosity.

Brief History of the Psychology of Religion

Religion has been overtly and universally present throughout recorded history. Worldwide estimates indicate that over two billion people have religious commitments. For most of these people, religious commitment plays an important role in how they choose to live and experience life (Zimbardo, 1979). American society is no exception. The 1980-1981 Gallup survey Religion in America (1981) demonstrates that the general population places a substantial investment in religion: Ninety-three percent state a religious preference; 69% belong to a synagogue or church; 40% had attended a religious service within 7 days prior to being surveyed; 55% consider religion to be very important in their lives; and 31% consider their religious belief to be the most important element in their lives. Clearly, the element of religion in human behavior is a phenomenon that cannot be ignored. Even so, in recent decades psychology has at best watched from a distance and has at times been hostile towards religion. In contrast, early pioneers in the science

of human behavior attempted to study and empirically evaluate the religious variable.

This early interest in the psychology of religion was not conceived in a philosophical vacuum. Before the advent of psychology, philosophy had been the gatekeeper of questions concerning belief and behavior. At the beginning of the present century, psychology, as a science of human behavior, made strong headway into the religious sphere, and "took upon itself the chore of objectively studying subjects that formerly belonged to philosophy" (Beit-Hallahmi, 1974, p. 86). It was the challenge of this positivistic approach, coupled with respect for religion as a human and social enterprise, that prodded the pioneers of the study of the psychology of religion to find no cause to avoid empirical investigation of this area (Schaub, 1924).

As mentioned above, religion was a concern of psychology from the beginning of psychology's existence as a formal science (James, 1902; Leuba, 1926; Starbuck, 1899). The most notable pioneer of psychology to examine religious phenomena was the father of American psychology, William James. In his Varieties of Religious Experience (1902), James theorized that basic personality differences accounted

for different expressions of religiosity.

Yet even before the attention afforded by James, books and journal articles addressing religious belief and behavior were common occurrences on the American psychological scene. Principle mouthpieces for the movement were the American Journal of Psychology and later the Psychological Bulletin (Beit-Hallahmi, 1974). G. Stanley Hall founded the Journal of Religious Psychology in 1904 (Flakoll, 1977).

In 1896, J. H. Leuba published one of the first empirical studies of religious conversion. Three years later, E. D. Starbuck published a book entitled the The Psychology of Religion (1899), a title which proved to be popular during the next 30 years (Coe, 1916; Cronback, 1933; Leuba, 1926; Pratt, 1908; Schaub, 1926).

However, the interest generated at the turn of the century in the psychology of religion began to decay during the 1920's and 1930's. The most obvious barometer of the downturn of attention in this area was the lack of articles concerning the psychology of religion in the journals previously mentioned, particularly the Psychological Bulletin. Beit-Hallahmi (1974) notes that

Since 1904, though more particularly with the issue of June, 1909, the Psychological Bulletin had carried reviews of publications in the psychology of religion . . . The decline in this area was reflected in the fact that no reviews were published between the years 1928 and 1933. The last review (Cronbach, 1933) contained mostly material taken from German and French sources, showing the loss of interest in the area in the United States. (p. 97)

Undergraduate college course offerings also reflected this increasing lack of interest in the psychology of religion. Out of 154 colleges surveyed in 1958, only 24 offered psychology of religion courses, down significantly from the previous ten years (Henry, 1958).

Bergin (1983) characterizes the relationship between psychology and religion in the 1940's and 1950's as one which reflected "lassitude and malaise". Further description of this decline has been outlined with more precision by others who note that religion became a taboo topic (Douglas, 1966; Strunk, 1957). Two prominent theses advocated to explain that decline are: (a) the nonreligious orientation of social

scientists during that time and the difficulty of definition and (b) validation of religious constructs (Bergin, 1983; Douglas, 1966; Maloney, 1977; Strunk, 1957). Indeed, as early as 1921 it was demonstrated that the scientific community, and especially psychologists, were less religious than most other vocational populations (Lueba, 1921, 1934; Stark, 1963).

Beit-Hallahmi (1974) notes that

Since academic communities in general are less religious than most of the population, social scientists acquire the impression that religion is neutralized. This misconception may have contributed to the declining interest in religion. Scientists in the late 1930's might have felt that the long war between science and religion was won by science and there was not much left to study in religion. (p. 90)

The second thesis offered by those who have studied the decline of the psychology of religion in the 1930's and 1940's is the difficulty of empirical validation of religious constructs (Douglas, 1966; Strunk, 1957, Warren, 1977). Despite the initial impetus provided by the empirical attempts of Hall, Starbuck, and Lueba at

Clark University, experimental studies of religiosity were soon few and far between (Flakoll, 1977).

The diverse methodology of early investigation in the psychology of religion further reflects much of the frustration encountered by attempts to quantify a socially sensitive, and from a definitive standpoint, a "slippery" construct for independent manipulation. Hall (1904), Starbuck (1899), and Clark (1929) made extensive use of questionnaires. Interview techniques (Coe, 1900), diaries (Kupky, 1928), biographical information (James, 1902), observation (Stolz, 1937), scales (Thurstone and Chave, 1928), surveys (Allport, Gillespie, and Young, 1948), and projective techniques (Nelson and Jones, 1957) are some of the methodologies that were employed in order to discover the critical elements of the religious variable.

Perhaps the best avenue of judging the success of such methodologies in providing data for theoretical constructs or manipulation is the quality and quantity of empirical studies produced. When this criteria is applied, the results are at best disappointing. The absence of more advanced methods of analyzing data as well as reliable and valid measures of dependent variables contributed significantly to disinterest and

frustration among researchers in the sphere of the psychology of religion.

Since the decline in the late 1920's noted by Beit-Hallahmi (1974), there have been increasing attempts and some success in reviving the field of the empirical study of religion (Bergin, 1980a, 1980b). Carter and Narramore (1979) suggest that the drought of interest in the 1930's, 1940's, and early 1950's concerning this field ended at the 1959 American Psychological Association convention symposium entitled "The Role of the Concept of Sin in Psychotherapy". Malony (1977) suggests that the reintroduction of a symposium on religious psychology into the Fifteenth International Congress of Psychology in 1957 was the beginning of renewed interest into the subject.

Whatever event or date one attaches to the renewed interest in the psychology of religion, it is clear that concern has been rekindled. Bergin (1983) asserts that the topic is far from being "dead" as Beit-Hallahmi (1974) once lamented. The appearance and growth of journals such as the Journal for the Scientific Study of Religion and Journal of Psychology and Theology, coupled with the appearance of graduate schools of psychology associated with seminaries and Christian

colleges, tangibly documents the present resurgence of academic interest in the psychology of religion.

During the past 25 years, an extensive literature addressed to religiosity and its correlates in the areas of lifestyle, quality of life, social and political attitudes, nonclinical personality dimensions, and clinically related social behaviors such as addiction, crime, and sexual conduct has slowly developed. A National Institute of Mental Health bibliography on the subject of religiosity is now available (Summerlin, 1980).

The number of studies attempting to correlate elements of religiosity with psychopathology is illustrative of the renewed interest in the psychology of religion. Some theorists and clinicians continue to argue that religiosity is antithetical to emotional health (Ellis, 1980; Walls, 1980). Ellis (1980) states

Religiosity is in many respects equivalent to irrational thinking and emotional disturbance . . . The elegant therapeutic solution to emotional problems is to be quite unreligious . . . the less religious they are, the more emotionally healthy they will be. (p. 637)

While Bergin (1983) forcefully argues that such an

assertion has not been empirically documented by investigations over the past 20 years, the argument in and of itself is not germane to this discussion. However, the rise of interest in religiosity by psychology in general can be demonstrated from a cursory examination of some of the studies specifically concerned with the variables of religiosity and psychopathology.

Bohrnstedt, Borgatta, and Evans (1968), Broen (1955), Brown and Lowe (1951), Martin and Nichols (1962), Mayo, Puryear, and Richek (1969), and Williams and Cole (1968) attempted to demonstrate a significant relationship between religiosity and psychopathology using the MMPI as a measure of clinical pathology. The results of these studies are at best contradictory and unclear.

Funk (1956), Heintzelman and Fehr (1976), Maranell (1974), Spellman, Baskett, and Byrne (1971), and Wilson and Miller (1968) evaluated the relationship between religiosity and maladjustment using the Manifest Anxiety Scale.

Keene (1967) and Wilson and Kawamura (1967) found no evidence of a relationship between religious factors and neuroticism. Smith, Weigert, and Thomas (1979) in a

study of Catholic adolescents found a nonsignificant correlation between religiosity and self-esteem. Many other studies using various means of assessing pathology or maladjustment have been completed. Religiosity, more often than not, was assessed simply by population used in the study or by simple self-reports of church activity or participation. It is understandable that given the diverse measures of religion and the diverse criteria of mental functioning, results of correlating the two sets of factors have so far yielded no distinct relationships (Argyle and Beit-Hallami, 1975; Becker, 1971; Dittes, 1971; Spilka and Werme, 1971; and Stark, 1971).

The point of the foregoing is that interest in religiosity by psychology is clearly increasing. Studies in a particular field such as the ones mentioned above serve to illustrate this increased attention from the whole discipline of psychology.

In addition, however, the above illustration also serves to point out that the measurement of religiosity may be as complicated as describing pathology, which currently requires a 494-page book, the Diagnostic and Statistical Manual of Mental Disorders (3rd ed.; Spitzer, 1980). Bergin (1983) suggests that

the mixed or insignificant results of many studies are conceivably due to the kind of imprecision that once afflicted psychotherapy research. Perhaps . . . as in psychotherapy, greater specificity and precision in defining and measuring the religious factor would likely alleviate this problem. (p. 180)

Most researchers would agree with this plea for more objective definition and measurement of the religious variable.

In summary, the psychology of religion was considered a viable and potentially fruitful area of research during the genesis of the science of human behavior. Pioneers such as James and Hall, books and journal articles, and the attempts to study religion empirically all characterized what would have seemed then to have been a growing sphere of research during the first 30 years of this century. However, during the 1940's and 1950's, the nonreligious orientation of most social scientists and the difficulty of empirically defining and measuring religious variables contributed to an atrophy of academic interest in the subject. In contrast to the decline of the 1940's and 1950's, the last 20 years has witnessed a resurgence of

concern for the study of religiosity. Illustrative of this increase is the increasing number of experimental studies examining the relationship between psychopathology and religiosity. Possible reasons for the increase in interest are the unavoidable presence of religious factors in American society, the availability of more advanced measurement and statistical techniques, and the attempts by psychologists to more precisely define and objectively measure the construct of religiosity. Given this perspective of the psychology of religion, an examination of measures of religiosity offered and employed in psychology is now appropriate.

A Survey of the Measurement of Religiosity

Measurement is the cornerstone of science and is therefore a vital component of scientific investigations. Gorsuch (1984) notes that

While measurement is defined before a scientific process, measurement is also a result of the scientific process. Periodically, it behooves us to evaluate the product from that process for its strengths and weaknesses. (p. 228)

Clearly, the quantification and manipulation of

variables is only as accurate as the mode of measurement employed.

Research in the sphere of the psychology of religion would be a much simpler endeavor if religious variables could be manipulated. For example, if conversion to Christianity could be experimentally manipulated, the random assignment of persons to religious and nonreligious groups would provide opportunity to experimentally test the "effects" of Christian religion (Basset, et al., 1981). However, there are obvious logistical and ethical problems with such an approach to religiosity. These problems have forced psychologists who attempt to evaluate the impact of religiosity to rely primarily upon descriptive research designs (Bateson, 1978), and thus employ methods of "measuring" what they hope are specific "religious constructs" or variables.

One of the more unusual "defining" elements of the present paradigm in the psychology of religion is the reliance on self-report instruments or questionnaires for data collection. At the present time, most conclusions about the definition and nature of religion result from self-report instruments (Gorsuch, 1984). As mentioned in the previous section, the measurement

of religious constructs has been a catalyst in the present revival of interest in the subject.

The next section will provide a survey of some of the more salient attempts to measure religiosity via self-report. In accordance with the purpose of this study provided below, the survey is limited to those instruments which attempt to measure religious constructs associated with Christianity. For the purpose of review and under the banner "survey", instruments are considered under the constructs of belief, behavior, knowledge, affiliation, attitudes, religiosity, and religious orientation as defined by Basset et al. (1981). Finally, observations concerning the psychometric credibility of instruments surveyed and the present trend of understanding the religious dimension are addressed.

Belief.

In their analysis of instruments measuring religious variables, Basset et al. (1981) defined the construct of "belief" as one which included views concerning

the nature of man, the God-man relationship, the origin of life, the existence of a divine plan, the inspiration of Scripture, and other issues

commonly included in a doctrinal statement.

(p. 336)

Of the 133 published instruments appearing in Psychological Abstracts from 1927 to 1977 and evaluated by Bassett et al. (1981), 80 of those instruments were, in their opinion, addressing the construct in whole or in part of "belief".

Chave's (1939) What I Think of Jesus scale, Allen and Spilka's (1967) test of Committed and Consensual Religion, Jennings (1972) Scriptural Literalism Scale, McPhail's (1972) five item Religious Beliefs Index, Gorsuch and McFarland's (1972) Multiple Item Christology Scale and Bateson's (1978) Doctrinal Orthodoxy Scale are illustrative of instruments designed to assess "belief" as a single religious construct.

Instruments which attempt to measure the construct of "belief" as well as other constructs defined by Bassett et al. (1981) include: Allport, Gillespie, and Young's (1948) Attitude Inventory: Aspects of Religious Belief, Kirkpatrick's (1949) Religiosity Scale, Brown and Lowe's (1951) Inventory of Religious Belief, Bateman's (1958) Religious Questionnaire, Armstrong, Larsen, and Mourer's (1962) Religious

Attitudes Scale, Martin and Nichols' (1962) Religious Belief Scale, Poppleton and Pilkington's (1963) Religious Attitude Scale, and Robinson and Shaver's (1978) Fundamentalism Scale.

At the very least it can be concluded that psychological research is very curious about the basic tenets of the Christian faith and their correlation with other aspects of human existence. The construct of "belief" or doctrinal position should be considered as an element of the religious variable.

Behavior.

Instruments frequently included self-reports of behavior that were assumed to reflect religiosity. Basset et al. (1981) defined the religious construct "behavior" as including "church attendance, financial contributions to the church, frequency of Bible study and prayer, and involvement in church related activities" (p. 336). Instruments designed to measure only the religious construct of "behavior" as defined here are: Allen and Spilka's (1967) Frequency of Church Attendance scale and Heath's (1969) MMPI Traditional Belief Index. It should be noted that the former consists of only one item and the latter of two items.

Other instruments which attempt to measure the construct of "behavior" as well as other religious constructs defined by Basset et al. (1981) are: Chave's (1939) Attitude Toward God scale, Martin and Nichols (1962) Background Questionnaire, and Robinson and Shaver (1978) Religious Orientation and Involvement scale. The attempted inclusion of the construct of self-reported religious "behavior" by psychometric research argues forcefully that the construct should be considered as an element of the religious variable.

Knowledge.

Self-report religious inventories have also attempted to reveal a person's awareness of specific religious facts or "knowledge". Basset et al. (1981) describe this construct of "knowledge" as one which "typically . . . involved either familiarity with Bible stories or religious practices (e.g. "What are the sacraments of the Catholic church?")" (p. 336). In comparison to the construct of "belief", the construct of "knowledge" taps specific religious information, that is, Scriptural data or creedal information rather than the broad presuppositions or faith of Christianity that would reflect the construct of "belief".

Iisager's (1949) Religious Knowledge Test and

Martin and Nichols (1962) Religious Information Scale attempt to measure only the construct of "knowledge". Other scales such as Watson's (1927) Multiple-Choice Test of Religious Ideas and Union Test of Religious Ideas, Robinson and Shaver (1978) Dimensions of Religious Commitment scale, and questionnaires used in studies by Allen and Hites (1961) and King and Hunt (1972) each attempt to measure the construct of "knowledge" as well as other religious constructs.

Affiliation.

Perhaps the simplest construct to define offered by Basset et al. (1981) is "affiliation". It is the "reported religious denomination or affiliation" (p. 336). Thirty-six of the 133 instruments surveyed by Basset et al. (1981) contained at least one item with which affiliation or nonaffiliation could be indicated. Numerous correlational studies have employed "affiliation" as "the" religious construct measured. The value of the construct apart from other religious constructs is questionable (Bergin, 1983).

Attitude.

The religious construct of "attitude" as defined by Basset et al. (1981) focuses upon attitudes and "attitude objects" that either clearly reflect

religiosity or were more generally moral and ethical in quality. Basset et al. (1981) suggest that item examples would be: (a) "Working on Sunday is completely appropriate" (b) "Sex before marriage is acceptable between consenting adults" (c) "People should attend church, tithe, and pray" (p. 336). Scales constructed by Thurstone and Chave (1929), Armstrong et al. (1962), Poppleton and Pilkington (1963), Hyde (1965), and Robinson and Shaver (1978), most named Religious Attitude Scale, attempt to quantify this construct as well as other religious constructs.

Religiosity.

"Religiosity" as defined by Basset et al. (1981) describes the personal impact of religion in life and items reflect

religious commitment, importance of religion, willingness to raise children in their own faith, influence of God in their life, personal openness to spiritual growth, adherence to moral standards, and the desire to marry someone of the same faith.

(p. 336)

In the judgement of Basset et al. (1981), the Rated Importance of Religion scale (Allen and Spilka, 1967), the Religious Identity scale (Allen and Spilka, 1967),

and the Religious Life Inventory (Bateson, 1978) are examples which attempt to quantify their definition of "religiosity".

Religious Orientation.

Finally, "religious orientation" is argued by Basset et al. (1981) to be a construct

in which some instruments . . . tap an intrinsic and/or extrinsic orientation toward religion.

Typically, such items assessed the extent to which religion was viewed instrumentally or as an end in itself. (p. 336)

The most notable and most employed instrument in psychological research which attempts to quantify this construct is Allport and Ross's (1967) Religious Orientation Scale. Wilson's (1960) Extrinsic Religious Values Scale and Hoge's (1972) Intrinsic Religious Motivation Scale are examples of inventories which attempt to measure "religious orientation" in reference to the extrinsic and intrinsic components refined by Allport and Ross, (1967).

A review of the above instruments reveals a startling lack of psychometric credibility when the entire sample is taken into consideration. It is a curious fact that serious discussion of validity for

psychological instruments began nearly 20 years before the revival of interest in the the psychology of religion. Yet Basset et al. (1981), in their survey of measures of religiosity, document that the establishment of reliability and validity was much more a rarity than an accepted standard of psychometric integrity. Of the 133 instruments surveyed, only 50 reported some demonstration of reliability and 57 an element of validity. However, there is a noticable trend in instruments published after 1970 to demonstrate an increasing concern for psychometric credibility and one author feels that psychologists now have produced "reasonably effective instruments" (Gorsuch, 1984, p. 234).

In summary, an examination of instruments designed to measure religious variables via the constructs proposed by Basset et al. (1981) provides evidence of an effort that spans over 50 years of psychological research. Beyond the obvious proliferation of instruments of questionable value is the equally obvious lack of religious construct definition in the psychology of religion. This is a phenomenon which plays no small part in the struggle to provide psychometric credibility to such inventories. The

constructs "defined" by Basset et al. are no exception.

Structure of Religious Dimensions.

While other methods have been used, most self-report measures of religious dimensions are constructed from a deductive approach as opposed to external or inductive approaches. Burisch (1984) uses the term "deductive" when referring to scale construction to emphasize that choice and definition of constructs precedes the formulation of items" (p. 215). The important question then to be considered is, "Who determines what construct is the whole or part of the religious variable?" Personality theory has provided some relief to those endeavoring deductive construction of general or pathologic personality inventories, but the psychology of religion has no such rich uncle.

At the present time in the measurement of religiosity, the issue of unidimensionality or multidimensionality is only now coming to a close. The weight of evidence seems to lean toward the latter, but it does so in two conceptual forms.

The first form of multidimensionality is one which implies a diversity of separate parts with no specific relationship to the whole. Most often such parts are explicitly or implicitly defined as "good" or "bad"

religiousness. In a discussion of this issue, Bergin (1983) notes

Allport (Allport and Ross, 1967), called it intrinsic (good) versus extrinsic (bad), somewhat akin to the popular distinction between internal and external control (Phares, 1978). Allen and Spilka (1967) defined it as committed (good) versus consensual (bad). James (1902) referred to the religion of the 'healthy-mindedness' versus the 'sick soul', although he did not necessarily judge one as better than the other. (p. 179)

Glock (1962) redefined religion into five basic factors: ritual, experiential, ideological, intellectual, and consequential. King and Hunt (1969) identified as many as 21 factors in one study, while DeJong, Faulkner, and Warland, (1976) identified 6 factors. In summary, the concept is one of multidimensionality that ranges from simple dicotomy to multiple factors with no specific implication of the relation of the factors to the whole concept of religiosity.

The second conceptual form is one which is comparable to the manner in which intelligence is now conceived. Bergin (1983) notes that much of the

discrepancies in some of the factor analytic studies could be resolved if religiosity, like intelligence, involves a general (G) factor and several specific (S) factors. Therefore, the resolution could be "both/and" rather than "either/or".

Despite one's particular disposition to unidimensionality or multidimensionality, Gorsuch (1984) argues that three conditions should be met before anyone should even consider constructing a new self-report questionnaire: (a) no comparable scale should exist (b) a new measure should be developed only if it can be argued to represent a new and unrelated construct (c) adequate resources for scale construction must be available.

In accordance with the criteria advanced by Gorsuch (1984), legitimacy should be granted to new scales which are based upon a unique epistemology or theory as represented by present instruments. This would be true of Paloutzian and Ellison's (1982) Spiritual Well-Being Scale (SWB) which is predicated on Moberg's (1971, 1974) concept of "spiritual well-being" as an element of the "quality of life" literature (Campbell, 1981). The SWB is based on a particular construct heretofore untapped by any other measure of

religiosity.

Another instrument consonant with the above criteria is the Spiritual Leadership Qualities Inventory (SLQI) constructed by Wichern (1980). The SLQI is the focus of this study. While the SLQI contains constructs which have appeared previously in psychological literature, the epistemological basis for the constructs measured is certainly unique to the present scope of the measurement of religion. The inventory is, to this writer's knowledge, the first and remains at this time, only one of three (cf. The Shepard Scale, Basset et al., 1981; Spiritual Gifts Inventory, McMinn, 1983) attempts to provide a measure of religious constructs based on solely on Biblical epistemology. It is the first and only scale at present to attempt measurement of multiple personality constructs based on Biblical information.

More specifically, the SLQI is predicated upon the traits and qualities of "spiritual maturity" outlined in I Timothy 3:1-7 and Titus 1:5-9. The "constructs" of the test are in effect the "concepts" listed in these passages and the definitions of words are provided by exegesis of the original Greek terms. The

context of the passages mentioned is one of leadership selection. Thus the purpose of the inventory and the derivation of its name becomes obvious. At the present time however, the SLQI is lacking in empirically demonstrated construct validity.

In summary, it can be said that measurement is a critical issue in the present paradigm (Kuhn, 1970) of the psychology of religion. Out of necessity and ethical consideration, religious variables have consistently been studied through descriptive research designs. This has in turn placed a great amount of emphasis on self-report inventories as dependent measures. The most common constructural bases for these measures have been belief, behavior, knowledge, affiliation, attitude, religiosity, and religious orientation as they apply to the religious dimension of life. Only in the last twenty years have constructs for measures of religiosity been more specifically defined and the measures themselves attained increasing psychometric credibility. Gorsuch has forcefully argued that no new scales should be offered unless novelty of construct is apparent. The SLQI (Wichern, 1980) fulfills this criteria though it is lacking in construct validity.

Rationale for the Study

For any test to be "useful" or to ensure "practicality" (Wiggins, 1973), it must demonstrate validity. More specifically, a test should measure what it purports to measure. A test should demonstrate validity for a particular purpose or use before it can be employed confidently on a widespread basis, and in fact, be interpretable (Anastasi, 1976).

The Spiritual Leadership Qualities Inventory (SLQI) is a "construct" type personality inventory (Wiggins, 1973). While the SLQI has demonstrated a degree of reliability and "external criterion validity" (e.g. discriminates between church leader and nonchurch leader), the 19 constructs or subscales of the inventory have not yet been empirically validated as separate constructs. It is therefore paramount that the validity of the constructs, or "construct validity" of the SLQI be empirically demonstrated in order for the instrument to be "useful" and to have a measure of psychometric credibility.

Purpose of the Study

The purpose of the study is to examine the construct validity of the Spiritual Leadership

Qualities Inventory (SLQI). This study will seek to determine the validity of the 19 constructs purportedly measured by the SLQI by means of: (1) significant ($p < .05$) subscale correlations with other more established tests which contain relevant variables (discriminant and convergent validity) (2) an examination of the factorial composition of the test by means of a factor analysis at the subscale (or construct) level.

More specifically, the purpose of this study is to examine the construct validity of the SLQI as it exists within the population of graduate students of theology preparing for leadership roles in the evangelical religious domain. It should be noted that the purpose of the study is not to determine if the SLQI is a measure of leadership. This is a presupposition of the test based upon Biblical values of the population for which the inventory was designed. Finally, for the purpose of this study, the terms "spiritual leadership" and "spiritual maturity" will be used synonymously. While leadership is not the same concept as maturity, it will be presupposed that one must be "mature" to be a competent "leader".

Hypotheses and Questions

The hypotheses of this study relate to the significant correlational relationships to be examined:

1. The SLQI subscales will correlate positively with the SWB.
2. The SLQI subscales will correlate positively with the Religious Well-Being (RWB) subscale of the SWB.
3. The SLQI subscales will correlate positively with the Existential Well-Being (EWB) subscale of the SWB.
4. The SLQI subscales will correlate positively with the Intrinsic (I) subscale of the ROS.
5. The SLQI subscales will correlate negatively with the aggressive subscales of the Interpersonal Behavior Survey (IBS).
6. The SLQI subscales will correlate positively with K scale of the MMPI and the Impression Management (IM) scale of the IBS.

The questions in this study relate to the factor analysis of the subscales of the SLQI.

1. How many "factors" explain the variance of the SLQI in this study with a principle components factor analysis and a Varimax rotation?
2. What are the intuitive clusters of subscales that result from the factor analysis?

Appendix E contains definitions of terms used in this study which are not familiar psychological terms.

CHAPTER 2

Methodology

In order to discern whether the Spiritual Leadership Qualities Inventory (SLQI) demonstrates construct validity for the population it was designed to evaluate (e.g. evangelical Christians in general, and more specifically, male aspirants to leadership roles within the various domains of evangelical Christianity), the SLQI was given along with four other self-report inventories to a sample of male students in the first year of the curriculum of a four-year Master of Theology (Th.M) program at an evangelical seminary. The other research instruments administered included two measures of religiosity, a measure of interpersonal behavior, and a clinical scale of psychopathology.

The seminary (Dallas Theological Seminary) from which two samples were drawn places strong emphasis on the authority and inerrancy of the Bible and therefore endorses the Biblical constructs the SLQI attempts to measure. The Th.M program at this seminary is designed first and foremost to prepare men as pastor-teachers in local churches, a position which undoubtedly requires leadership ability within a homogeneous group with

distinct goals and purpose. Data was collected from students during the 1982-1983 and 1983-1984 school terms.

Sample and Procedure

Two samples were drawn from the seminary population at different times and under different methods of selection. Both samples took the MMPI as a requirement of admission to the Th.M. program and the SLQI in August of the first school year for personal evaluation as required by the seminary's Counseling Services. Subjects were not collected from two classes through different methods for the purpose of experimental design but rather out of necessity to generate an adequate, and to some degree, random subject pool.

The first sample (from the 1982-1983 entering class) was asked to participate in February of 1983. Those who agreed to do so had completed the SLQI in August of 1982. Group 1A was composed of randomly selected students that responded to the first invitation to participate in the study. Group 1B was composed of those students who responded to the second invitation to participate. These students completed the remaining inventories in the counseling services testing room.

The second sample (from the 1983-1984 entering class) were nonrandom respondents to a volunteer invitation to participate during August 1983 registration procedures. These subjects completed the inventories in a large room on the seminary campus. They composed Group 2 of the study.

Time elapsed between the administration of instruments was limited to the shortest span practically feasible. The length of time required to complete all five instruments at once (approximately three hours) necessitated the use of archival data (MMPI in both groups and the SLQI in the first group) to ensure the probability of voluntary participation. Table 1 summarizes the sampling and administration procedures for the study.

Table 1

Chronological Administration of Test Battery to 1st Year
DTS Students

Variables	MMPI	SLQI	SWB	ROS	IBS
Group 1A (N=22)	<1year of SLQI	8-82	2-82	2-82	2-82
Group 1B (N=21)	<1year of SLQI	8-82	3-82	3-82	3-82
Group 2 (N=47)	<1year of SLQI	8-83	8-83	8-83	8-83

Respondents in both groups who took the MMPI more than one year before they took the SLQI were eliminated from the sample pool. Group 1a was composed of 22 respondents, group 1b of 21 respondents, and Group 2 of 47 respondents for a total of 90 subjects. All subjects were males.

Participants in both groups were offered personal interpretation of their scores for each instrument by the author as incentive to participate. Each person who participated gave written consent for their scores to be used in the present study.

Instruments

Spiritual Leadership Qualities Inventory

The SLQI was constructed on the basis of a grammatical exegesis of the Biblical passages of 1 Timothy 3:1-7 and Titus 1:5-9. These particular passages were chosen because "they contain an outline of the spiritual character qualifications" provided by Scripture for leaders in a church (Wichern, 1980, p. 1).

Specifically, each construct is based upon a translation and interpretation of a specific Greek term or phrase. Wichern (1980) proposes that

Each passage contains 15 character traits. Eight of the traits are similar; seven are unique. There is a total of 22 distinct traits, but only 19 were selected for use in the development of the SLQI. The trait "not a new convert" was deleted because we felt that individuals should be allowed to establish their own criterion for this trait. The traits "not quick tempered" and "not pugnacious" were combined because both deal with anger (or the impulsive expression of anger). The traits "uncontentious" and "gentle" were combined because they reflect similar behavior, namely, gentleness. Hence, one trait was deleted and four traits were combined into two traits in the development of the SLQI. (p. 1)

The second stage of the development of the SLQI was the generation of 260 items. The manual for the SLQI implies (and scoring method confirms) that each item was intended theoretically to correlate with only one trait/construct. A panel of nine seminary professors "who were trained in the original languages and involved in public ministries" then evaluated the items to judge whether the item content was related to the respective trait/construct (Wichern, 1980, p. 1). Unanimous

agreement was obtained on the scale assignment and on the scored direction of 225 items; 222 items were retained for composition of the SLQI. "Many items were further analyzed and rewritten to obtain a 60/40 balance of affirmative statements" to prevent defensiveness and "response setting" (Wichern, 1980, p. 1). A forced choice format of "True/False" was selected for answers and the items were randomly arranged in the inventory. Appendix B contains the scoring criteria for the SLQI.

The SLQI attempts to measure the following biblical constructs as defined by Wichern (1980):

1. Upright (U)--means "just" or "righteous in human relationships." The subscale is comprised of 9 items which assess "fairness and impartiality in relationships". It is based upon the Greek term dikaios from Titus 1:8. Sample items are:

1. If others fail to recognize how good I am it is because of their own limitations. (F)
19. I believe there is a code which demands that all men act fairly toward one another. (T)
26. I secretly enjoy someone who is good at fooling others even if it sometimes embarrasses them. (F)
29. I frequently find myself going out of my way

to make sure the other guy has an equal chance. (T)

2. Good Reputation--refers to the "nature of a Christian's testimony among non-Christians". The subscale is composed of 8 items which assess the degree to which one is "recognized in their community as one of high moral character who conducts himself appropriately". It is based upon the Greek term kalosmartyria from 1 Timothy 3:7. Sample items are:

9. There are a few people who know things about me which if told could cause me great embarrassment.
(F)

17. I often laugh at a dirty joke or story just so my friends or co-workers don't think I'm stuck up. (F)

22. People in the community would say that I am a person with high moral values. (T)

30. I really enjoy a good hot argument. (F)

3. Above Reproach (AR)--means "irreprehensible" or "irreproachable". The subscale is composed of 8 items which describe a person whose character has no foundation for accusation of impropriety or wrongdoing. It is a general quality based upon the Greek term anepileptos from 1 Timothy 3:2. Sample items are:

3. At times I am afraid that things I have done

in the past will catch up with me. (F)

16. My conscience often bothers me with the feeling that I am not doing what I ought to be doing. (F)

20. If I could get into a movie without paying and be sure I was not seen, I would probably do it. (F)

25. What others think of me does not bother me. (F)

4. Respectable (R)--refers to one who is "modest, orderly, or decent". The subscale is composed of 9 items that reflect the characteristic of one who "lives his life in such a well-ordered way that his behavior and internal attitudes display a proper relationship to Biblical principles". The construct is based upon the Greek term kosmos from 1 Timothy 3:2. Sample items are:

5. At my work area or desk, I frequently create such a mess that I can't get anything done. (F)

13. I believe that each person has complete freedom to eat, drink, or act however he wants. (F)

14. I don't mind being asked to do a humbling job which no one else will take. (T)

23. At times I feel like swearing. (F)

5. Desire to be an Overseer (O)--refers to one who

desires to "serve in a position of leadership and authority". The subscale is composed of 9 items which reflect attitude toward church leadership and ambition to lead in the context of a church. The trait is based upon the Greek term episkopoi from 1 Timothy 3:1 and Titus 1:7. Sample items are:

37. I have often thought that I would like to be a leader in a local church. (T)

51. Elders or deacons are sincere people who should be praised for their work. (T)

55. Elders or deacons are just like anyone else, only they try to look good. (F)

59. I would feel good about working regularly on projects for my church. (T)

6. Holy (HY)--refers to the nature and extent of "an individual's relationship to God". This subscale is composed of 11 items which assess devotion to God and "practical holiness". The construct is based upon the Greek term hosios from Titus 1:8. Sample items are:

35. If I had to choose, I would rather be spiritually close to people. (T)

38. The main purpose of man is to know God and worship Him. (T)

53. Some of the greatest moments of my life have

come from seeking to know God. (T)

57. I have made the study of the Bible and seeking
God my highest priority. (T)

7. Able to Teach (AT)--may refer either to an
individual's "ability to teach or to be taught". This
construct is based on the Greek term didaktikos from 1
Timothy 3:2 and Titus 1:9. Sample items are:

36. People who invest their time in studying the
Bible are not aware of the real problems facing
man. (F)

47. A regular program of Bible study should be a
priority for most people. (T)

54. Theologians have so confused people about
religion that I would rather watch T.V. than
read a religious book. (F)

64. Talking in front of a group of people makes me
very anxious. (F)

8. Temperate (T)--refers to one who is "clear-headed,
mentally alert, and able to make sound judgements". The
construct is based upon the Greek term nephalios from 1
Timothy 3:2. Sample items are:

67. I have periods of days, weeks, or months when I
can't take care of things because I can't get
going. (F)

70. I usually have to stop and think before I act even in trifling matters. (F)

75. I have met problems so full of probabilities that I have been almost unable to make up my mind about them. (F).

91. I feel better about my life more than I ever have (T).

9. Prudent (P)--refers to a stable character and conduct. This subscale is composed of 17 items which assess an ability to "handle practical matters of life in spite of the level of stress or temptation one may be experiencing". The construct is based upon the Greek term sophron from 1 Timothy 3:2 and Titus 1:8. Sample items are:

71. I have been asked to lead groups where a difficult decision had to be made. (T)

85. I have good success in settling disputes among people. (T)

89. At times I feel like smashing things. (F)

93. I get mad easily and then get over it soon. (F)

10. Able to Manage Family (F)--refers to the ability to manage the home in a dignified manner and raise children who are well-disciplined. The subscale is composed of 16 items designed to assess home management skills and

present family stress. The construct is based upon the phrase "one who manages his household well" from

1 Timothy 3:4 and Titus 1:6. Sample items are:

104. When I have problems with my family life, I usually try to work harder at my job. (F)

107. Because mothers spend more time with their children, they are better able to make decisions about privileges and discipline. (F)

114. I find that I can talk more openly and honestly to friends at work than I can my family (or wife). (F)

129. I have little to say about what my family does. (F)

11. Husband of One Wife (HW)--refers to the absense of "preoccupation with immoral sexual behavior". This subscale is composed of 16 items and assesses agreement with Biblical values of sexual behavior. The Greek phrase literally means "a one-woman" man. Wichern (1980) suggests that "for practical reasons we believe that each church and/or denomination must arrive at their own conclusions with respect to how they interpret and apply this trait" as it applies to divorce and remarriage. (p. 3). Sample items are:

105. I think that any religion which teaches that

God made man with a sex drive and then sets up restrictions is unreasonable. (F)

109. An occasional visit to an adult bookstore never hurt anyone. (F)

119. In the final analysis, pleasure is the most important thing in life.

128. I don't especially enjoy watching movies depicting intimate love scenes. (T)

12. Gentle (GT)--refers to the qualities of being "considerate, encouraging, not quarrelsome or argumentive." This subscale is composed of 14 items and assesses the disposition to yield personal "rights in order to promote the good of others". The construct is based upon the two Greek terms epieidis and amachos from 1 Timothy 3:3 being treated as synonyms. Sample items are:

136. I will go out of my way to avoid causing a fight. (T)

145. If I propose an idea or belief, I usually will push it until the majority of people accept it. (F)

159. It makes me impatient to have people ask my advice or interrupt me when I am working on something important. (F)

165. It takes a lot of argument to convince most people of the truth. (F)

13. Not Quick-Tempered (QT)--refers to the ability to "deal constructively with anger". This subscale is composed of 12 items and assesses the trait of being non-violent and forgiving. The construct is based upon the Greek term plektes from Titus 1:7. Sample items are:

132. I have resentments which I have stored up and harbored for long periods. (F)

140. Frequently I feel frustrated because I cannot think of a way to get even with someone who deserves it. (F)

158. Some people make me so angry I'd like to shout at them or slap their face. (F)

164. If I am angry I think it's best to keep it to myself for several days. (F)

14. Self-Controlled (SC)--means "disciplined". This subscale is composed of 8 items and assesses the ability to "control impulsive desires, sexual or otherwise". The construct is based upon the Greek term egkrates from Titus 1:8. Sample items are:

133. Although I am usually aware of my immediate response to a situation, I have little difficulty with impulsiveness. (T)

138. I do not let interruptions in my schedule
disorganize me so that I cannot finish my jobs. (T)

144. Doing things on the spur of the moment is not
characteristic of me. (T)

149. I am known to my friends as a man who exhibits
self-discipline. (T)

15. Not addicted to Wine (NA)--refers to substance
abuse. This subscale is composed of 11 items and
primarily taps abuse of alcohol or prescribed
medications. The construct is based upon the Greek
phrase which literally translates "not one who sits too
long at his wine". The reference to the phrase is found
in 1 Timothy 3:3. Sample items are:

175. I feel I sometimes misuse medications I have
been given. (F)

180. I believe there is some truth to the old
saying that you can "drown your sorrows" with
alcohol. (F).

183. I frequently use medication. (F)

185. My will power is strong when it comes to
passing up food or drink. (T)

16. Greed (GD)--refers to freedom from control by
materialistic ambitions. This subscale is composed of 13
items which assesses the value placed on "spiritual"

investments as opposed to monetary security. The construct is based on the Greek term aphilarguros from 1 Timothy 3:3 which literally translates "not a love of money". Sample items are:

168. When I lose money I get so uncomfortable I can hardly think of anything else. (F)

178. One of my major goals in life is to acquire enough money so that I can be sure of a secure future.

186. I would rather have a savings account of over \$5,000 than to have close relationships with my friends. (F)

187. I worry over money and business. (F)

17. Lover of Good (LG)--a broad term which refers "to thoughts, attitudes, and behavior which are primarily concerned with what is 'good' or 'worthwhile'". This subscale is composed of 13 items and is based upon the Greek term philagothos from Titus 1:8. Sample items are:

193. I sometimes enjoy conversations in which the faults or misdeeds of others are being discussed. (F)

196. God's plan for mankind is still the best plan.
(T)

200. My friends feel that I am optimistic about

life. (T)

221. I feel good when I learn that someone I
dislike has gotten into trouble. (F)

18. Not Self-Willed (SW)--means altruistic. This subscale is composed of 10 items and refers to the characteristic of having respect for the rights and opinions of others. "The lives of self-willed individuals are characterized by self-centeredness and selfishness, which has no place in the character of a Christian leader." The construct is based upon the Greek term authades from Titus 1:7. Sample items are:

208. I don't have problems saying no to my own
desires over spending time with my family. (T)

209. People who seek their own self-interests
before the needs of others probably have
inferiority feelings. (T)

217. I am basically a selfish person. (F)

218. My motto is, "When the going gets tough, the
tough get going". (F)

19. Hospitable (HP)--means generous to others in reference to self and resources. This subscale is composed of 10 items and assesses the ability to respond "lovingly and compassionately to the needs" of others. The construct is based upon the Greek term philoxenos

from 1 Timothy 3:2 and Titus 1:8. Sample items are:

- 195. I enjoy having friends come over for supper or an evening. (T)
- 198. I support missionaries because I believe they are doing a necessary job. (T)
- 206. Providing overnight lodging for my friends or even strangers does not bother me. (T)
- 213. I am against giving money to beggars. (F)

The reliability or "accuracy" of the SLQI has been examined by means of the "test-retest", method with a sample size of 100 and an interval of eight weeks between administrations. The coefficients of stability (Pearson r values) for each subscale provided by the SLQI manual (Wichern, 1980) are found in Table 2. The sample used to demonstrate the coefficients of reliability is described as "Christians".

Table 3 from the SLQI manual provides SLQI subscale intercorrelations. Of the 361 coefficients ($N = 71$), 335 are significantly correlated ($p \leq .05$). Wichern (1980) suggests that the high intercorrelations provide evidence of subscale "homogeneity and structural fidelity".

Table 2SLQI Test-retest Correlations

Trait	R-value	Trait	R-value
U	.54	HW	.62
GR	.30	Gt	.54
AR	.42	QT	.58
R	.52	SC	.54
O	.53	NA	.49
Hy	.31	Gd	.52
AT	.45	LG	.49
T	.61	SW	.49
P	.63	HP	.46
F	.61		

Note. From Spiritual leadership Qualities Inventory,
 p. 7, 1980, by F.B. Wichern, Richardson, TX; Believer
 Renewal Resources. N=100.

Table 3Intercorrelations of SLQI Subscales

Trait	U	GR	R	O	Hy	AT	T	P	F	HW	Gt	QT	SC	NA	Gd	LG	SW	BP
U																		
GR	.44																	
AP	.17	.45																
R	.35	.43	.42															
O	.40	.34	.21	.32														
Hy	.37	.38	.21	.32	.51													
AT	.46	.38	.23	.42	.49	.53												
T	.38	.36	.27	.33	.54	.57	.53											
P	.45	.41	.30	.47	.46	.45	.33	.37										
F	.41	.32	.25	.38	.57	.43	.40	.50	.33									
HW	.27	.21	.34	.25	.15	.27	.43	.25	.10	.24								
Gt	.59	.31	.08	.36	.46	.44	.57	.57	.42	.55	.25							
QT	.65	.40	.37	.34	.35	.37	.45	.38	.32	.41	.27	.43						
SC	.19	.07	.06	.19	.01	.13	.05	.05	.11	.17	.20	.10	.24					
NA	.54	.31	.24	.36	.39	.40	.47	.34	.24	.40	.39	.52	.46	.17				
Gd	.53	.46	.22	.28	.27	.41	.46	.45	.38	.42	.33	.64	.46	.12	.42			
LG	.51	.41	.34	.46	.40	.41	.44	.46	.46	.48	.23	.44	.63	.16	.48	.49		
SW	.57	.44	.29	.48	.39	.40	.29	.48	.47	.64	.27	.54	.55	.34	.42	.53	.43	
BP	.55	.28	.21	.49	.56	.60	.55	.47	.40	.58	.33	.62	.53	.09	.67	.47	.61	.54

Note. From Spiritual Leadership Qualities Inventory, p.

p. 7, 1980, by F.B. Wichern, Richardson, TX: Believer

Renewal Resources. N not provided.

The criterion-validity of the SLQI was examined by Wichern (1979). The inventory discriminated by total SLQI score Bible church elders and non-Christians ($t = 3.36$, $p \leq .05$, $N = 33$). Townsend (1980) found that two groups of church leaders scored significantly higher than non-Christians ($t = 7.99$, $p \leq .001$, $N = 71$). Subjects in both studies were all males.

In a study of 51 males from Portland, Oregon, the total score of the SLQI was found to significantly correlated to the Spiritual Well-Being Scale ($r = .702$, $p \leq .01$) and the Intrinsic and Extrinsic subscales of the Religious Orientation Scale ($r = .623$, $p \leq .01$; $r = -.437$, $p \leq .01$) (Ewing, Parker, and Quinn, 1983). While this study reveals the existence of some relationships of the SLQI to other measures of religiosity from the perspective of a summed SLQI score and provides a degree of concurrent validity, the SLQI is lacking in empirically demonstrated construct validity. At this time, no study has demonstrated predicted relationships between theoretically related scales at the subscale level nor has a factor analysis been conducted at either the item or subscale level.

Spiritual Well-Being Scale

The Spiritual Well-Being Scale (SWB) developed by Paloutzian and Ellison (1979a, 1979b) was used a measure of religiosity in this study. This instrument is a general measure of spiritual well-being in which the construct of "spiritual well-being" is conceptualized as a continuous variable. The construct could be defined as the "spiritual dimension of human welfare" and reflects the human need for "transcendence" (Ellison, 1984, p. 330).

The SWB is composed of 20 items scored in a Likert scale format (six point scale ranging from strongly agree to strongly disagree in order to preclude neutral responses). Responses for each of the items are assigned a numerical value from 1 to 6. Ten of the items were constructed to measure Religious Well-Being (RWB) and 10 items were constructed to measure Existential Well-Being (EWB). The primary distinction between the subconstructs of the RWB and EWB is the presence of a reference to God in RWB items. No such reference is present in EWB items. The SWB scale produces three scores: (1) a total SWB score, (2) a summed score for religious well-being items, (3) a summed score for existential well-being items.

Test-retest reliability coefficients from 100 student volunteers at the University of Idaho were .93 (SWB), .96 (RWB), and .86 (EWB) (Paloutzian and Ellison, 1982). Coefficient alphas, an index of internal consistency were .89 (SWB), .87 (RWB), and .78 (SWB) in the same study.

In addition to the above indices of high reliability and internal consistency, the SWB has demonstrated concurrent and construct validity through factor analysis of items and predicted correlations with other theoretically related scales. In a factor analysis of the SWB items, two factors with eigenvalues greater than 1.0 were present. All of the items with reference to God loaded on the RWB factor. The existential items loaded on two sub-factors, "one connoting life direction and one related to life satisfaction" (Ellison, 1984, p. 333).

The SWB has correlated with other measures in predicted directions in several studies. Paloutzian and Ellison have demonstrated that the SWB correlates negatively with the UCLA Loneliness Scale (1979a, 1979b, 1979c; Ellison and Paloutzian, 1978), positively with the Purpose in Life Test (1979a; Ellison and Paloutzian, 1979), and positively with the Intrinsic subscale of

Allport and Ross's (1967) Religious Orientation Scale (1979a). Campise, Ellison, and Kinsman (1979) demonstrated a positive correlation between self-esteem and spiritual well-being as measured by the SWB. Ellison and Economos (1981) found the SWB, RWB, and EWB to be significantly correlated to a number of variables that include: (1) worship orientations and devotional practices which promote a sense of personal acceptance and communion with God, (2) the average number of worship services attended each month and (3) the average amount of time spent in daily devotions.

Religious Orientation Scale

The second measure of religiosity administered in this study was the Religious Orientation scale (ROS). This instrument has been widely used to measure Allport's concept of Intrinsic (I) and Extrinsic (E) orientations to religion (1950, 1954, 1959, 1966; Feagin, 1964; Allport and Ross, 1967).

This inventory is composed of 21 items scored in a predominantly Likert format. Items are scored from 1 to 5, with 4 or 5 indicating an extrinsic orientation, 1 or 2 indicating an intrinsic orientation, and a score of 3 being given to any item omitted. Total score is simply

the sum of the 21 scored items. Subscale scores (I and E) can be obtained by summing the respective items composing those subscales.

Feagin (1964) reported that item to scale correlations ranged from .22 to .54 while subscale correlations (item to subscale) ranged from .54 to .71 for I and from .48 to .68 for E. Allport and Ross (1967) reported similar findings. In addition to the above reports of internal consistency, the ROS had demonstrated its construct validity in many studies (Robinson and Shaver, 1978).

In general, intrinsic orientation connotes that which is primary and internalized. The religion is incorporated into the fabric of one's personality. Thus, for example, when there is a conflict between motives (e.g., between the religious motive and an economic or sexual one), the intrinsically religious person would behave in ways consistent with religious motive. Such persons are said to live their faith (Paloutzian and Ellison, 1979a).

The extrinsic orientation, on the other hand, is best described as utilitarian. The extrinsic person participates in religion for self-serving ends, and is therefore more likely to compromise the religion in

mixed motive situations. These persons are said to use their faith (Paloutzian and Ellison, 1979a).

Robison and Shaver (1978) note that studies indicate that the ROS discriminates between four rather than two types of religious orientations. These include the previously defined intrinsic and extrinsic types, and in addition, types labeled indiscriminately proreligious and indiscriminately antireligious. The indiscriminately proreligious and antireligious types appear to contradict themselves in that they express blanket support or condemnation (respectively) for all religious items.

Relationships in predicted directions in many studies have contributed to the construct validity of the ROS. Strikland and Shaffer (1971) demonstrate the relationship between religious orientation and internal/external control of reinforcement. Spilka (1977) demonstrated predicted positive relationships between "committed" religiosity with intrinsic religiosity. Other researchers have demonstrated various behavioral and attitudinal correlates (e.g., Allen and Spilka, 1967; Bateson, 1978; Fleck, 1981; Hodge, 1972; Hood, 1970; King and Hunt, 1969; McConahay, 1969; Wilson, 1960) consistent with the constructs of the ROS.

The 21 item version of the ROS (Feagin, 1964) was used in this study.

Interpersonal Behavior Survey

The Interpersonal Behavior Survey (IBS) was developed to distinguish assertive behaviors from aggressive behaviors and the sample subclasses of these behaviors (Mauger and Adkinson, 1980). The individual IBS scales fall under four categories: (1) validity scales, (2) aggressiveness scales, (3) assertiveness scales, and (4) relationship scales. Descriptions of each scale are taken from the IBS manual (Mauger and Adkinson, 1980).

The validity scales reflect test-taking attitudes. The Denial scale (DE) "indicates a hesitancy to admit to common but socially undesirable weaknesses and feelings". The Infrequency Scale (IF) indicates "a tendency to endorse items that less than 10% of the normative sample endorsed". The Impression Management scale (IM) "measures the degree to which impression management plays a part in a person's responses to the IBS items" (the tendency to describe oneself in socially approved ways).

The aggressive component of the IBS includes seven

subscales. The General Aggressiveness, Rational scale (GGR) "measures the general response class of aggressiveness over a wide variety of item content including aggressive behaviors, feelings, and attitudes". The Hostile Stance (HS) scale "measures an antagonistic orientation toward other people, a view of the world that justifies aggression in order to get ahead in life or to protect oneself". The Expression of Anger (EA) scale "is an indication of the tendency to lose one's temper and express one's anger in a direct, forceful manner". The Disregard for Rights scale (DR) "measures the tendency to ignore the rights of others in order to protect oneself or to gain an advantage". The Verbal Aggressiveness scale (VE) "gives an indication of the using of words as weapons by doing such things as making fun of others, criticizing, and putting others down". The Physical Aggressiveness scale (PA) "samples behavior that indicate indirect or passive expression of aggressiveness".

The assertive component of the IBS includes eight subscales. The General Assertiveness, Rational scale (SGR) "is a general measure of assertiveness". The Self-Confidence scale (SC) "measures the expression of positive attitudes about one's self and the expression

of self-assurance". The Initiating Assertiveness scale (IA) "is an indication of leadership potential and the tendency to take an ascendent role in groups". The Defending Assertiveness scale (DA) "reflects behaviors related to standing up for one's rights". The Frankness scale (FR) "samples the willingness to clearly communicate one's true feelings". The Praise scale (PR) "reflects one's degree of comfort in giving and receiving praise". The Requesting Help scale (RE) "measures the willingness to ask for reasonable favors and help when they are legitimately needed". The Refusing Demands scale (RF) "indicates the willingness to say 'no' to unreasonable or inconvenient demands from others".

Finally, the IBS includes three "relationship" scales. The Conflict Avoidance scale (CA) measures the tendency to "evade open disagreement or conflict with others". The Dependency scale (DP) "indicates the degree to which a person is dependent upon others" to meet emotional needs. The Shyness scale (SH) "samples social behaviors such as friendliness, participation in social events, and the enjoyment of social interaction".

The reliability characteristics of the IBS have been demonstrated using a test-retest format over both a

2-day and 10-week period and the coefficient alpha internal consistency procedure. The coefficients of stability, test and retest means and standard deviations, and standard errors of measurement are presented in Tables 4 and 5.

Construct validity has been demonstrated through factor analysis and predicted significant correlations with theoretically related scales (convergent and discriminant validity). The results of factor analytic studies described in the IBS Manual are presented in Table 6. These are second order factors, since the IBS clinical scales included in these studies were developed using item-level factor analysis. The pattern of loading is similar in both community residents and college student samples.

In the analysis provided in Table 6, the first factor is defined by substantial loadings from all of the assertiveness scales. The second factor is defined by loading from the two aggressiveness scales (HS and EA-S). These results argue for a "view of the IBS as an inventory that samples two broad response classes. It also supports the importance of individual scales" (Mauger and Adkinson, 1980, p. 15).

Table 4Internal Consistency of IBS Scales

Scale	Derivation Sample ^a	Cross-validation Sample ^b
DE	.66	.57
IF	.64	.53
IM	.66	.62
GGR	.88	.87
GGE	.73	.73
GGR-S	.74	.72
HS	c	.81
EA	.86	.84
EA-S	c	.69
DR	.63	.60
DR-S	.65	.62
VE	.71	.68
VE-S	.70	.69
PH	.70	.69
PH-S	.53	.40
PA	.86	.82
SGR	.90	.88
SGE	.70	.68

(table continues)

Construct Validity

65

Scale	Derivation Sample ^a	Cross-validation Sample ^b
SGR-S	.64	.63
SC	c	.79
IA	c	.77
DA	c	.77
FR	.61	.67
FR-S	c	.67
PR	.69	.63
PR-S	.62	.62
RE	.60	.59
RE-S	.60	.67
RF	.33	.52
RF-S	.11	.53
CA	.76	.76
DP	.83	.82
SH	.90	d

Notes. From Interpersonal Behavior Survey Manual, p. 12, by Paul A. Mauger and David R. Adkinson, 1980, Los Angeles: Western Psychological Services. The reliability coefficients in the above table were calculated according to the coefficient alpha internal consistency reliability procedure. ^an=150 college students. ^bn=159 college students. ^cCoefficient alpha not calculated since it was derived through factor analysis for a sample. ^dCoefficient alpha not cross-validated for this sample.

Table 5

Test-retest Reliability of IBS Scales

Scale	First Test		2-Day Interval ^a		r	SE _m	First Test		10-Week Interval ^b		r	SE _m
	X	SD	Second Test	SD			X	SD	Second Test	SD		
DE	51.49	11.41	51.26	11.39	.90	3.61	46.85	10.43	46.63	10.25	.93	2.76
IF	48.26	8.88	50.28	11.26	.84	3.56	44.78	6.14	45.28	6.30	.87	2.21
GGR	48.40	10.91	48.70	11.48	.93	2.89	45.38	8.48	44.92	8.21	.92	2.40
GGE	48.93	11.82	47.58	12.35	.94	2.90	45.28	8.12	45.07	7.54	.81	3.54
GGR-S	48.84	11.28	49.56	12.09	.88	3.91	46.92	10.76	45.73	10.22	.90	3.40
HS	49.95	12.00	49.70	13.46	.92	3.39	44.90	8.27	44.43	8.33	.88	2.86
EA-S	47.84	9.33	47.02	9.24	.85	3.61	46.08	9.63	45.23	8.75	.86	3.60
DR-S	48.02	9.83	49.37	10.94	.89	3.26	44.20	7.14	44.05	7.90	.81	3.11
VE-S	48.44	10.09	48.63	10.77	.91	3.03	49.92	9.23	48.58	9.08	.91	2.77
PH-S	47.88	11.12	46.21	9.87	.84	4.48	44.17	8.25	43.83	8.29	.93	2.18
SGR	50.98	9.72	50.56	9.97	.96	1.94	54.15	8.88	54.95	8.84	.93	2.35
SGE	49.88	10.32	50.40	11.00	.93	2.73	51.97	10.62	53.13	10.88	.93	3.00
SGR-S	50.16	9.44	49.51	9.26	.90	2.99	52.38	9.76	53.68	9.89	.92	2.58
SC	50.79	10.80	50.19	11.07	.93	2.86	55.13	8.10	54.68	8.80	.89	2.69
IA	49.84	10.90	51.23	10.43	.94	2.67	53.33	10.87	54.00	10.89	.90	3.44
DA	52.09	9.75	52.14	9.38	.90	3.08	51.62	9.91	53.05	9.67	.92	2.80
FR-S	50.05	9.74	49.58	9.94	.85	3.77	52.17	9.06	52.65	8.91	.80	4.05
PR-S	48.28	10.53	47.70	11.23	.92	2.98	53.17	9.30	52.58	9.70	.90	2.94
RE-S	51.19	9.81	50.09	9.45	.77	4.70	56.07	7.51	56.22	8.21	.87	2.71
RF-S	53.05	9.12	50.95	11.34	.71	4.91	51.00	9.34	51.97	9.71	.89	3.10

Notes. From Interpersonal Behavior Survey Manual, p. 13, by Paul A. Mauger and David R. Adkinson, 1980, Los Angeles, Western Psychological Services. All reliability coefficients were calculated using samples of college students. None of the first test to second test differences between scale means (T-score means) was statistically significant. ^an=43 college students.
^bn=68 nursing students.

TABLE 6Factor Loadings and Communalities of Full-length IBS Scale

Scale	Factor I	Factor II	Factor III	Communality
DE	-.13	-.61	.00	.39
IF	-.13	.16	.82	.71
IM	.18	-.66	.08	.48
HS	.22	.65	.33	.59
EA	.12	.66	.22	.50
PA	-.38	.65	.23	.63
SC	.78	-.05	-.10	.62
IA	.66	-.02	-.01	.43
DA	.79	.04	-.13	.65
FR	.70	.25	.10	.56
DP	-.55	.45	.04	.51

Percentage of common variance attributed to:

Factor I	Factor II	Factor III
48.4	40.4	11.3

Notes. From Interpersonal Behavior Survey Manual, p. 16, by Paul A. Mauger and David R. Adkinson, 1980, Los Angeles: Western Psychological Services. The values in the above table were calculated using a sample of 106 female and 75 male college students.

Convergent and discriminant validity of the IBS has been demonstrated by predicated correlations with established personality inventories using samples from a number of populations. Examples of such predicated correlations are the correlation of .63 of the SGR scale with the Dominance scale of the Edwards Personal Preference Schedule (EPPS) in a sample of guidance graduate students. Discriminant validity for SGR is seen from the .22 correlation with the Aggression scale on the EPPS. The IBS manual provides further substantial documentation of convergent and discriminant validity by means of predicted correlations with theoretically related scales.

Minnesota Multiphasic Personality Inventory

The MMPI (Hathaway and McKinley, 1967) has been the object of an enormous volume of research studies. Buros' (1978) Eighth Mental Measurements Yearbook cites over 5,000 studies on the MMPI. Dahlstrom, Welch, and Dalstrom (1975) list over 6,000 references on its clinical and research applications. Although the MMPI has not lived up to its initial intent of diagnosing patients into distinct psychiatric disorders according to single scale elevations, it has proved useful in

generating behavioral descriptions and inferences about individuals on the basis of their MMPI profiles (Graham, 1979).

Reliability and validity data for the individual MMPI and validity scales have been reported for several different normal and clinical populations in Dahlstrom et al. (1975) and Graham (1977). Due to the design of this study, the reliability factor as influenced by intervals of time is particularly germane. Short interval (1 day to 2 weeks) test-retest coefficients range from .70 to .85 and coefficients for longer intervals of one year or more range from .35 to .45. These coefficients of stability compare favorably with those of other personality instruments (Graham, 1977). Internal consistency data for individual MMPI scales have been summarized for many different populations (Dahlstrom et al., 1975). Typically, these values range from .60 to .90, although some estimates vary considerably.

Validity studies on the MMPI have been conducted on numerous populations using wide range of criteria, as attested by the thousands of studies published on the MMPI. Graham (1977) stated that it is difficult to reach definitive conclusions about the validity of the MMPI,

but voices his belief that the validity data suggest that the MMPI is the most valid personality instrument of those that have been studied empirically" (p. 325).

Due to widespread familiarity of the MMPI scales and for the sake of economy of space, this study will assume that readers have a basic familiarity with the scales of the MMPI. For that reason, they will not be reviewed in detail. Graham (1977) can be consulted for a good introduction to the MMPI.

In summary, this study will employ two measures of religiosity (SWB and ROS), one measure of interpersonal behavior skills (IBS), and a measure of clinical psychopathology (MMPI) as instruments through which construct (discriminant and concurrent) validity will be examined for the SLQI by means of predicted correlations. Appendix B contains specimens of each of the research instruments used in this study.

CHAPTER 3

Results

This chapter presents the statistical methods used to test the hypotheses and questions of this study and the results obtained. Data collected from the 90 subjects produced scores from five self-report inventories for a total of 62 variables for each subject. Formulas described in Statistical Package for the Social Science (SPSS) (Nile, Hull, Jenkins, Stienbrenner, & Bent, 1975) were used to compute the one-way analysis of variance (ANOVA) for the three sample groups: Pearson Product Moment Correlation Coefficients and two-tailed T-tests of significance were used to examine the hypotheses, and principle components factor analysis with Varimax rotation and confirmatory factor analysis by means of the multiple groups method to evaluate the questions.

Critical values for the two-tailed T-test for Pearson Product Moment Correlations and F tests for the one-way ANOVA were designated at the $p \leq .05$ significance level (one-tail). Factor loadings greater than .40 with principle components factor analysis and

Varimax rotation were considered significant.

Descriptive Statistics

Demographics for each subject were not collected during the procedure of this study, but data is collected each year by the Office of Admissions at the seminary. They are given here in order to provide a better description of the subjects than "a first-year student at Dallas Seminary" and are germane to an understanding of the sample and to the generalization of the results of this study. Only demographic information from the first year Th.M of the 1982-1983 entering class (population from which the random subjects were selected) is presented. Information provided below was collected during the August 1982 seminary registration procedures and was made available by the Office of Admissions at Dallas Theological Seminary (Dallas Theological Seminary, Personal Communication, February 3, 1983).

All subjects were males and the mean age was 27.4 years. Married students composed 65.8% of the sample and of those students, 68.9% had no children, 11.4% had one child, 14.2% had 2 children, 3.2% had 3 children, and 2.3% had four or more children. Those whose undergraduate degrees came from a secular college or

university composed 56.6% of the sample. Graduates from Christian liberal arts colleges composed 20.1% and graduates from Bible colleges composed 23.3% of the sample. While in college, 56.5% did not participate in any parachurch organization, 21% participated in Campus Crusade for Christ, 7.6% participated in Inter-Varsity, 7.6% participated in Navigators, 3.2% participated in Young Life, and 4.1% participated in others.

Reasons for choosing the seminary for graduate school included (more than one choice could be indicated): doctrinal position (63.5%), Bible teaching (77.2%), emphasis on the biblical languages (53.4%), total academic program (50.7%), faculty (73.1%), alumni (50.2%), reputation (74.4%), and recommendation of pastor (32.9%)m recommendation of other Christian leader (31.5%), recommendation of students (24.7%), and other reasons (5.5%). Finally, at the time of the survey, the primary goal of entering students included: unspecified (20.5%), pastoral (47.0%), teaching (14.2%), counseling (1.4%), missions (10%), and others (6.9%).

The homogeneity of the sample can be demonstrated from the fact that a one-way ANOVA of the two groups sampled produced significant ($p \leq .05$) F scores on only two of the 62 variables (Gentle, SLQI and Scale 2,

MMPI). Significant differences between group means for two variables from a sample of 62 variables can be attributed to chance. Appendix C contains the results of the one-way ANOVA.

Mean scores and standard deviations for each variable was also computed for the entire sample. Tables 7 through 11 give this descriptive data for the Spiritual Leadership Qualities Inventory (SLQI), the Religious Orientation scale (ROS), and the Spiritual Well-Being scale (SWB), the Interpersonal Behavior Survey (IBS) and the Minnesota Multiphasic Personality Inventory (MMPI) respectively.

Table 7Means and Standard Deviations of SLQI Scales

Variables	Mean	Upper Limit	S.D.
U	7.63	9	1.34
GR	6.81	8	0.97
AR	6.37	8	1.24
R	6.76	9	1.61
O	7.94	9	1.04
HY	10.16	11	1.12
AT	8.76	11	1.52
T	12.94	17	2.34
P	13.79	17	2.50
F	13.22	16	1.52
HW	14.34	16	1.63
GT	10.43	14	2.62
QT	10.16	12	1.86
SC	5.62	8	1.69
NA	10.30	11	0.83
Gd	11.37	13	1.97
LG	10.58	13	1.87

(table continues)

Construct Validity

79

Variables	Mean	Upper Limit	S.D.
SW	7.19	10	1.53
HP	8.40	10	1.40
Total SLQI	182.88	222	18.06

Note. N=90

Table 8Means and Standard Deviations of the ROS

Variables	Mean	S.D.
TOTAL	31.33	6.41
Intrinsic Subscale	12.01	2.73
Extrinsic Subscale	19.36	5.53

Note. N=90Table 9Means and Standard Deviations of the SWB Scales

Variables	Mean	Upper Limit	S.D.
SWB	109.99	120	9.44
RWB	56.19	60	5.15
EWB	53.78	60	5.31

Note. N=90

Table 10Means and Standard Deviations of IBS Scales

Variables	Mean	S.D.
DE	57.03	9.99
IF	43.58	4.92
IM	60.36	11.39
GGR	35.33	6.96
HS	36.15	7.50
EA	39.19	7.12
DR	38.31	4.76
VE	38.99	6.78
PH	38.78	6.32
PA	37.37	5.35
SGR	51.90	7.12
SC	52.20	8.48
IA	50.79	7.75
DA	48.99	8.17
FR	47.46	9.67
PR	53.37	9.26
RE	51.84	9.40

(table continues)

Construct Validity

82

Variables	Mean	S.D.
RF	53.21	9.66
CA	54.11	9.48
DP	46.44	8.52
SH	52.37	9.48

Note. N=90

Table 11Means and Standard Deviations of MMPI Scales

Variables	Mean	S.D.
?	1.99	.34
L	56.21	8.85
F	51.09	4.03
K	62.18	8.10
1	51.01	6.45
2	50.04	7.32
3	58.48	6.61
4	57.73	7.90
5	62.43	7.77
6	54.67	7.22
7	55.67	6.83
8	55.42	6.56
9	54.20	9.78
0	49.59	6.61

Note. N=90. K-corrected T scores.

Hypotheses

H1 stated that there would be significant positive relationships between the subscales of the SLQI and the total score of the SWB. Table 12 shows 14 of the 19 subscales of the SLQI did correlate significantly in a positive direction. Nine of the SLQI subscales significant at $p \leq .005$. The SLQI subscales Upright, Greed, Desire to be an Overseer, Holy, Gentle, and Not Self-Willed failed to demonstrate a significant relationship to total SWB score.

Table 12Intercorrelations Between the SLQI and the SWB and ROS

Variables	SWB	RWB	EWB	ROS	E	I
U	.189	.240*	.107	-.127	-.120	.067
GR	.072	-.013	.140	-.127	-.044	.207
AR	.245*	.235*	.212*	-.075	-.019	.134
R	.357**	.340**	.310**	-.069	-.047	.091
O	-.052	-.067	-.029	-.010	.185	.378**
Hy	.211*	.215	.166	-.067	-.100	.011
AT	.264*	.166	.314**	-.240*	-.287*	.005
T	.409**	.255*	.480**	-.135	-.114	.093
P	.386**	.306**	.393**	-.089	-.125	-.043
F	.290*	.240*	.283*	-.176	-.178	.049
HW	.231*	.226*	.144	-.192	-.217*	.011
Gt	.196	.149	.210*	-.194	-.156	.143
QT	.401**	.331**	.433**	-.172	-.105	.197
SC	.299**	.206	.340**	-.058	-.045	.053
NA	.316**	.274**	.297**	-.040	.021	.131
Gd	.354**	.259*	.384**	-.115	-.047	.194
LG	.446**	.402**	.407**	-.303**	-.225*	.256*

(table continues)

Variables	SWB	RWB	EWB	ROS	E	I
SW	.144	.083	.179	-.230*	-.188	.157
HP	.420**	.340**	.418**	-.077	-.042	.097
Total SLQI	.491**	.396**	.494**	-.235**	-.187	.187

Notes. E and I are scored in opposite directions; I correlations are reversed in this table to indicate true direction of correlations.

N=90

* $p \leq .05$, ** $p \leq .005$, two tailed T-test.

H2 stated that there would be significant positive relationships between the subscales of the SLQI and the Religious Well-Being (RWB) subscale of the SWB. Table 12 shows 13 of the 19 subscales of the SLQI did correlate in a significant positive direction with six of the SLQI subscales significant at $p \leq .005$. The SLQI subscales Greed, Desire to be an Overseer, Able to Teach, Gentle, Self-Controlled, and Not Self-Willed failed to demonstrate a significant relationship to the RWB subscale of the SWB.

H3 stated that there would be significant positive relationships between the subscales of the SLQI and the

Existential Well-Being (EWB) subscale of the SWB. Table 12 shows 13 of the 19 subscales of the SLQI did correlate in a significant positive direction with 10 of the SLQI subscales significant at $p \leq .005$. The SLQI subscales Upright, Greed, Desire to be an Overseer, Holy, Husband of One Wife, and Not Self-Willed failed to demonstrate a significant relationship to the EWB subscale of the SWB.

H4 stated that there would be significant positive relationships between the subscales of the SLQI and the Intrinsic (I) subscale of the ROS. Table 12 shows that only the SLQI subscales Holy ($p \leq .005$) and Lover of Good correlated in a significant positive direction with I. It should be noted that the total SLQI score correlated very strongly with each of the SWB scales, but showed no relationship to the I and E subscales of the ROS.

H5 stated that there would be significant negative relationships between the subscales of the SLQI and the aggressive behavior subscales of the IBS. Table 13 shows that 16 of the 19 SLQI subscales correlate significantly in a negative direction with the General Aggressiveness, Rational scale of the IBS. All but 2 of the 16 relationships with this general measure of

aggressiveness were significant at the $p \leq .005$ level.

Out of a 133 correlations between the subscales of the SLQI and the seven aggressiveness subscales of the IBS, 103 demonstrated significant negative relationships and 80 of those were significant at the $p \leq .005$ level. The SLQI subscales Greed, Desire to be an Overseer, and Holy showed no significant relationships to the aggressiveness scales (except for HY correlating with disregard for Rights, $r = -.257$, $p \leq .05$), thus accounting for 20 of the 30 nonsignificant relationships. Table 14 shows the correlations between the SLQI and the assertive and relationship scales of the IBS.

Table 13

Intercorrelations Between the SLQI and the Validity and Aggressiveness Subscales of the IBS.

Variables	DE	IF	IM	GGR	HS	EA	DR	VE	PH	PA
U	.278*	-.159	.410**	-.431**	-.359**	-.222*	-.323**	-.397**	-.173	-.310**
GR	.223*	.049	.278*	-.163	-.152	-.073	-.150	-.060	-.056	-.184
AR	.336**	-.218*	.452**	-.390**	-.357**	-.313**	-.306**	-.303**	-.163	-.349**
R	.569**	-.176	.424**	-.466**	-.457**	-.412**	-.335**	-.447**	-.230*	-.386**
O	.122	-.097	.086	.006	.054	-.050	.060	-.023	.189	-.015
HY	.210*	-.086	.231*	-.120	-.113	-.114	-.257*	-.019	.001	-.125
AT	.433**	-.198	.592**	-.415**	-.390**	-.468**	-.273**	-.350**	-.339**	-.488**
T	.414**	-.296**	.489**	-.358**	-.345**	-.347**	-.294**	-.247*	-.210*	-.562**
P	.277*	-.247*	.496**	-.415**	-.353**	-.438**	-.214*	-.272*	-.217*	-.375**
F	.250*	-.007	.325**	-.244*	-.243*	-.257*	-.222*	-.171	-.146	-.292**
HW	.275*	-.217*	.272*	-.314**	-.271*	-.115	-.260*	-.295**	-.024	-.190
GT	.306**	.108	.450**	-.515**	-.484**	-.352**	-.375**	-.469**	-.278*	-.367**
QT	.384**	-.210*	.512**	-.548**	-.490**	-.473**	-.273*	-.444**	-.291**	-.435**
SC	.329**	-.173	.446**	-.380**	-.348**	-.229*	-.355**	-.418**	-.329**	-.398**
NA	.269*	-.162	.344**	-.322**	-.339**	-.210*	-.306**	-.286*	-.190	-.394**
Gd	.393**	-.177	.489**	-.496**	-.483**	-.480**	-.265**	-.335**	-.458**	-.488**
LG	.300**	-.160	.445**	-.440**	-.393**	-.277*	-.339**	-.340**	-.163	-.309**
SW	.348**	-.169	.401**	-.284*	-.319**	-.259*	-.219*	-.237*	-.106	-.310**
HP	.371**	-.249*	.556**	-.512**	-.546**	-.428**	-.372**	-.378**	-.230*	-.426**
Total SLQI	.555**	-.257*	.710**	-.644**	-.602**	-.529**	-.465**	-.519**	-.336**	-.560**

Note. N=90. *p ≤ .05, **p ≤ .005, two-tailed T test.

Table 14

Intercorrelations Between the SLQI and the Assertiveness and Relationship Scales of the IBS

Variables	SGR	SC	IA	DA	FR	PR	RE	RF	CA	DP	SH
U	.085	.148	-.043	.071	-.158	.075	.153	.100	.114	-.278*	-.035
GR	.008	.077	-.058	-.081	-.066	.086	-.030	.101	.066	-.128	.042
AR	.220*	.315**	.159	.031	-.083	.321**	.098	.023	.081	-.094	-.126
R	.184	.199	.131	.085	-.053	.092	.243*	.145	.092	-.404	-.208*
O	.133	.043	.147	.070	.036	.073	-.056	.035	-.091	-.069	-.018
HY	.045	.015	.023	.100	-.040	-.031	.043	.180	-.108	-.245*	-.052
AT	.115	.125	.029	.036	-.085	.109	-.001	.309**	.093	-.366**	-.116
T	.383**	.369**	.176	.243*	.123	.182	.136	.310**	-.128	-.484**	-.363**
P	.261*	.294**	.184	.115	.119	.224*	.105	.126	.027	-.373**	-.279*
F	.297*	.179	.262*	.126	.110	.148	-.023	.182	-.109	-.365**	-.134
HW	.138	.040	.131	.071	-.117	.035	.014	.096	.101	-.434**	.076
GT	-.116	.055	-.178	-.243	-.199	.141	-.063	-.023	.358**	-.178	-.030
QT	.170	.362**	-.023	-.055	.038	.258*	.207*	.100	.015	-.289*	-.257*
SC	-.078	-.049	-.115	-.098	-.274*	-.009	-.072	.151	.307**	-.225*	-.045
NA	.202	.299**	.101	.033	.026	.187	.087	.096	-.010	-.405**	-.232*
Gd	.194	.230*	.069	.135	.099	.130	.049	.147	-.028	-.303**	-.160
LG	.212*	.218*	.164	.107	-.022	.201	.108	.075	-.008	-.293**	-.162
SW	.294**	.277*	.063	.179	.097	.156	.067	.253*	-.060	-.258*	-.107
HP	.242*	.330**	.197	.003	.006	.339**	.186	.090	.057	-.303**	-.426**
Total SLQI	.271*	.327**	.123	.082	-.031	.245*	.116	.034	.082	-.502**	-.253*

Note. N=90. *p ≤ .005, **p ≤ .005, Two-tailed T-test.

Table 15

Intercorrelations Between the SLQI and the MMPI

Variables	?	L	F	K	1	2	3	4	5	6	7	8	9	0
U	-.004	.173	-.008	.173	.050	-.200	-.099	.060	-.098	.245*	.053	.123	.065	-.101
GR	.022	.188	-.061	.347**	-.017	.105	-.019	-.020	-.025	.018	-.011	.044	-.238*	-.019
AR	.083	.109	-.182	.341**	-.023	.120	.113	.006	-.069	.039	.001	.024	-.150	-.186
R	.043	.474**	-.215*	.384**	.206	.028	.155	.073	-.240*	.037	.031	.282*	.040	-.172
O	.022	-.035	.188	-.055	.023	-.019	-.061	-.024	-.027	.029	.013	.013	-.052	-.060
HY	.069	.244*	.002	.114	.042	-.037	.007	.041	-.120	.035	.109	.110	.091	-.162
AT	.103	.263*	-.182	.382**	.116	-.087	.135	.048	-.283*	.096	-.001	.094	-.020	-.197
T	-.056	.305**	-.158	.460**	-.013	-.253*	.130	.193	-.306**	-.037	-.208*	-.018	.135	-.329**
P	-.081	.277*	-.318**	.560**	.269*	-.149	.207	.010	-.303**	.036	.078	.210*	-.010	-.379**
F	.076	.237*	-.177	.312**	.190	-.029	.197	.021	-.139	.238*	-.021	.024	.092	-.093
HW	-.101	.205	-.135	.154	-.111	-.150	-.012	-.132	-.123	-.023	-.151	-.102	-.039	-.073
GT	.050	.104	-.039	.411**	.150	.034	.302**	.133	-.089	.220*	.144	.193	-.130	.056
QT	-.128	.375**	-.305**	.478**	.249*	-.125	.212*	.045	-.152	.114	.047	.169	.063	-.357**
SC	-.024	.126	-.110	.284*	-.101	.068	-.039	-.028	-.253*	.001	-.105	.002	-.079	.049
NA	.063	.288*	-.190	.348**	.132	-.045	-.040	.049	-.185	.079	-.050	.096	.022	-.111
Gd	-.014	.368**	-.171	.560**	.119	-.099	.146	.196	-.166	.132	-.063	.130	-.104	-.171
LG	.024	.186	-.256*	.367**	.210*	-.180	.147	.155	-.097	.154	.017	.195	.037	-.270*
SW	.136	.254*	-.329**	.227*	.030	-.039	.062	-.201	-.151	-.071	-.273*	-.186	.045	-.136
HP	-.106	.287*	-.162	.382**	.218*	-.209*	.279*	.097	-.011	.330**	.042	.203	.107	-.450**
Total	.001	.405**	-.271**	.598**	.182	-.148	.216*	.084	-.271*	.153	-.048	.159	-.007	-.299**

Notes: (1) N=90

(2) * $p \leq .05$, ** $p \leq .005$, Two-tailed T-test.

(3) K-corrected T scores

H6 stated there would be significant positive relationships between the subscales of the SLQI and the IM scale of the IBS and the K scale of the MMPI. Table 13 shows that all of the SLQI subscales except for Desire to be an Overseer correlate positively with the IM scale of the IBS and all but three were significant at $p \leq .005$. Table 15 shows that 15 of the 19 subscales of SLQI correlate positively with the K scale of the MMPI and all but two of those correlations are significant at the $p \leq .005$ level.

Questions

The questions in this study concerned the factorial composition of the SLQI at the scale level. A principle components factor analysis produced five factors with an eigenvalue greater than 1.0 (See Table 16). These five factors explained a cumulative percentage of variance of 59.9%. The first factor accounts for 33.9 percent of the total variance and 56.6% of the variance explained by the first five factors. When the factors are rotated to a Varimax solution, the scales load as presented in Table 17.

While this loading makes "conceptual" sense, the high amount of variance accounted for by the first

factor alone and high correlations among the factors call the five-factor explanation of internal structure into question. Table 18 shows the high correlations between the factors in the five-factor explanation.

Table 16Varimax Factor Analysis of the SLQI

Factor	Eigenvalue	Percent of Variance	Cumulative Percentages
1	6.440	33.9	33.9
2	1.606	8.5	42.3
3	1.190	6.3	48.6
4	1.104	5.8	54.4
5	1.040	5.5	59.9
6	0.986	5.2	65.1
7	.843	4.4	69.5
8	.741	3.9	73.4
9	.704	3.7	77.1
10	.696	3.7	80.8
11	.576	3.0	83.8
12	.500	2.6	86.5
13	.486	2.6	89.0
14	.471	2.5	91.5
15	.399	2.1	93.6
16	.356	1.9	95.5
17	.331	1.7	97.2
18	.290	1.5	98.7
19	.241	1.3	100.0

Note. N=90

Table 17

Varimax Rotated Factor Matrix of SLQI Subscales

Subscales	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
U	.153	.745**	.054	.138	.254
GR	.117	-.066	.102	.815**	.040
AR	.143	.279	.144	.638**	-.067
R	.615**	.196	.147	.092	.273
O	-.026	-.036	-.021	.124	.789**
Hy	.234	.224	.097	-.267	.690**
AT	.400*	.361	.456*	.038	.196
T	.717**	.180	.367	.020	.053
P	.658**	.301	.273	.074	-.160
F	.085	.357	.725**	.097	.021
HW	.092	.357	.456*	.347	.186
Gt	.161	.669**	.193	.309	-.170
QT	.605**	.377	-.132	.397	.095
SC	.189	.350	.401*	.253	.039
NA	.354	-.183	.663**	.043	-.039
Gd	.712**	.115	.185	.220	.139
LG	.365	.629**	.37	.008	.067
SW	.492*	.239	.034	.425	-.007
HP	.447	.648**	.100	-.054	.072

Note. N=90. *=loading greater than .40. **loading greater than .60.

Table 18Correlations Among Factors in the 5-Factor Analysis

Factors	1	2	3	4	5
1	_____				
2	.713	_____			
3	.535	.370	_____		
4	.503	.551	.227	_____	
5	.701	.645	.351	.387	_____

In an attempt to provide a factorial explanation which has low overlap between factors, a confirmatory factor analysis was performed using the multiple groups technique (Gorsuch, 1983) that forced a three-factor explanation. This structure still reflects a high amount of shared variance between factors (See Tables 19 and 20).

Table 19

Confirmatory Factor Analysis of a 3-Factor Structure

Subscales	Factor 1	Factor 2	Factor 3	Communalities	Residual Variance
U	.672	.402	.731*	.621	.379
AR	.452*	.241	.040	.341	.659
AR	.609*	.338	.242	.433	.567
R	.494	.648*	.461	.432	.568
O	.047	.065	.471*	.366	.634
Hy	.171	.302	.629*	.535	.465
AT	.519	.730*	.500	.544	.456
T	.537	.792*	.474	.630	.370
P	.568	.737*	.387	.555	.445
F	.480	.627*	.370	.396	.604
HW	.607*	.459	.391	.372	.628
Gt	.698*	.467	.422	.492	.508
QT	.695*	.501	.388	.498	.502
SC	.591*	.445	.316	.367	.633
NA	.261	.574*	.165	.384	.616
GD	.539	.723*	.427	.523	.477
LG	.674	.558	.691*	.558	.442
SW	.634*	.462	.325	.426	.574
HP	.653	.551	.735*	.587	.413
Factor Communality	.302	.290	.216	.477	.523

Note. *=largest loading of subscale

Table 20Correlations Among Factors for a 3-factor Confirmatory Analysis

Factors	1	2	3
1	_____		
2	.704	_____	
3	.680	.576	_____

When a two-factor explanation was forced using the same technique, the correlation between scales decreased sharply. Table 21 shows two-factor SLQI structure. It should also be noted that in this forced explanation of factorial composition the first three factors of the original five-factor structure collapse to form the first factor and the remaining two-factors collapse to form the second factor in this two-factor structure.

Table 21Confirmatory Factor Analysis of a 2-Factor SLQI Structure

Subscales	Factor 1	Factor 2	Communalities	Residual Variance
U	.621*	-.036	.403	.597
GR	.289	.612*	.414	.586
AR	.492	.604*	.530	.470
R	.629*	-.034	.413	.587
O	.083	-.528*	.306	.694
Hy	.352	-.587*	.540	.460
AT	.673*	.007	.462	.538
T	.716*	.042	.517	.483
P	.692*	.196	.488	.512
F	.594*	.060	.353	.647
HW	.583*	.177	.348	.652
Gt	.623*	.271	.421	.579
QT	.641*	.261	.440	.560
SC	.564*	.174	.326	.674
NA	.423*	.070	.179	.821
Gd	.668*	.099	.446	.554
LG	.697*	.035	.491	.509
SW	.583*	.202	.354	.646
HP	.682*	-.029	.482	.518
Factor Communality	.337	.068	.417	.584

Notes. Correlation among factors=.148. *=largest loading
of subscale

Chapter 4

Discussion

This paper evaluates and interprets the results of the previous chapter. In addition, this chapter will critique the process of construction, format, and present purpose and use of the Spiritual Leadership Qualities Inventory (SLQI). The chapter includes the following sections: sample, hypotheses, questions, implications, suggestions for further research, and conclusions.

Sample

Subjects used in this study were all students in the first year of a four-year Master of Theology (Th.M) degree plan at Dallas Theological Seminary. One-way ANOVA of the two sample groups on all variables produced significant differences between group means within the boundaries of chance (see Appendix C). It can therefore be assumed that the nonrandom group (Group 2) did not differ significantly on mean scores from the random groups (Groups 1a and 1b) because of sampling procedures. It should also be noted that comparable numbers of subjects participated from each

entering class used in the study (43 for Groups 1a and 1b; 47 for Group 2).

The sample population for this study was selected primarily for three reasons: (a) the sample was composed of religious males preparing for leadership roles (b) the SLQI is presently used to assess this population of seminary students at the beginning and end of their seminary career (c) availability of the subjects for testing. The importance of the nature of the group on which validity is examined cannot be underestimated (Anastasi, 1976). The American Psychological Association's (1974) Standards for Educational and Psychological Tests states

Any selective factor determining the composition of the validation sample should be indicated in a manual or research report. The sample should be described in terms of those variables known or thought to affect validity. Evidence of validity should be obtained for subjects who are of the same age or in the same educational or vocational situation as the persons for whom the test is recommended. (pp. 36-37)

Therefore, the appropriateness of this sample for a study of the construct validity of the SLQI can best be

argued on the grounds that it is designed to be used with this population (male aspirants to leadership in evangelical Christian groups) and it is currently being used to assess this population.

The nature of this sample dictates that the results of this study are best generalized to other seminary students of the same school, to seminary students of other comparable seminaries, and to other male Christians in other organizations who have a comparable age and educational background. Generalization to different populations should be made with caution.

Descriptive statistics from this study also provide information about the sample. Tables 7, 8, and 9 give the mean scores and standard deviations on the three measures of religiosity. When compared to the Analysis Profile for the SLQI (see Appendix B), mean sample scores for the SLQI subscales all fall within the profile range of "normal Christian" and "spiritually mature". There is no normative data in the SLQI manual (Wichern, 1980) with which total SLQI scores in this sample can be compared.

Mean score of the sample for the SWB was 109.99 out of a maximum score of 120. The subscales also

reflect high scores with a mean of 56.19 (RWB) and 53.78 (EWB) out of a maximum scores of 60 in each scale. The sample reflects very high religious and existential well-being, and consequently, very high "spiritual well-being" as measured by the SWB for this sample.

Mean scores for the I and E subscales of the ROS show a strong intrinsic religiosity in the sample. Sample mean score for the I subscale was 12.01 compared to the most extrinsic of 9 (I is scored in the reverse direction) and mean score for the E subscale was 19.36 out of a possible high of 60.

Mean T scores for Denial and Impression Management of the IBS in Table 10 reflect a strong tendency to answer items in a socially approved manner. The sample mean T scores on the aggressiveness subscales were all below 40. When considered with the high mean T scores of the validity scales, these scores reflect a reluctance on the part of the sample to admit aggressiveness; alternatively, the sample may show below average tendencies to manifest aggressive behavior. Assertiveness and relationship mean T scores fell within one standard deviation of the norm.

While the age of the MMPI scores should be taken

into consideration when compared to the other inventories, high mean T scores reflected the same tendency seen on the IBS to answer questions in a socially desirable manner. All mean T scores (K-corrected) on the MMPI except scale 5 fell within one standard deviation of the norm. The elevation of this scale may reflect a strong interest in artistic, aesthetic, cognitive pursuits, or passive tendencies.

Average scores of the sample from the test battery used in this study would reflect a highly intrinsic religious profile which claimed to be experiencing a high sense of well-being and commitment to biblical values. The profile further reflects a strong tendency to deny problems and psychopathology, to deny feeling or acting out aggressively, to embrace nonstereotyped masculine interests, and to value cognitive pursuits.

Consideration must be given as to why 90 seminary students would give one to two hours of their time to this research. Reasons for subject participation may have been because: (1) the invitation to participate was written on Dallas Seminary stationery and signed by the Director of Counseling Services (see Appendix A)

(2) anonymity was assured for the purposes of the study itself through the assignment of numbers to subjects by the secretary of the Counseling Services yet (3) test protocols themselves were placed in the personal files of each subject by the secretary of Counseling Services so that each participant could have his scores interpreted if he so desired (4) the subjects had a genuine interest in participating in research that would hopefully provide information about spiritual maturity in general and the usefulness of the SLQI in particular.

In summary the SLQI, according to the SLQI manual, has been validated on pastor, elder, seminarian, and non-Christian populations, but no information as to the denomination, location, or age of the subject sample is provided (Wichern, 1980). Recognized test standards consider the validation of test essential (American Psychological Association, 1974). In order for the validation study to accurately reflect the validity of a test (in this case construct validity), the sample must reflect the population for which the test is to be administered and should be identified with norms given in the test manual. For this reason, the sample used in this study is appropriate to the purpose of the SLQI

and the intent of this study.

Hypotheses

The hypotheses in this study relate to the predicted significant ($p \leq .05$) relationships between the subscales of the SLQI and the other inventories used in this study. Anastasi (1976) states that one of the principle means of evaluating the construct validity of a new inventory is by correlating the new inventory with theoretically related and established tests. Due to the fact that this is the first examination of construct validity of the SLQI at the subscale level and the lack of theoretically related inventories, predicted relationships were hypothesized on a rational basis. Hypotheses presuppose that the biblical constructs outlined in 1 Timothy 3 and Titus 1 (independently or in clusters) are necessary elements of spiritual maturity or leadership.

Two scales which tap the religious domain, the SWB and ROS, were employed as theoretically related inventories. There is sufficient psychometric credibility for these two tests to rationally generate predicted relationships between those tests and the subscales of the SLQI. H1 through H4 relate to those

predicted relationships and examine a type of construct validity known as convergent validity (Anastasi, 1976).

H1 through H3, as reported in the results, were partially but not completely supported. The rationale for H1 was that the constructs of each of the subscales of the SLQI would produce, be the result of, or in some way be related to an overall measure of "spiritual well-being" or the ability "to transcend physical handicaps and suffering and to experience spiritual and emotional health and growth" as measured by the SWB scale (Ellison, 1984, p. 332).

While Ellison states that spiritual well-being may not be the same thing as spiritual maturity, he also admits "we would expect a spiritual mature person to have a very positive sense of well-being" (1984, p. 332). Bufford (1984), however, has cast some doubt on Ellison's assumption that spiritual well-being is distinct from spiritual maturity (as measured by the Spiritual Maturity Inventory). It has been shown that spiritual well-being is correlated with high self-esteem, adequate social skills, family togetherness, high quality of parent-child relationships (Campise, Ellison, and Kinsman, 1979), and purpose in life (Ellison and Paloutzian, 1979), and negatively

correlated with depression and loneliness (Paloutzian and Ellison, 1979a).

As noted in the results, 13 subscales of the SLQI had significant positive relationships with the SWB and EWB subscales of the SWB, most of them significant at $p \leq .005$. These findings generally support the hypothesized relationship between spiritual maturity or leadership as defined and measured by the SLQI and spiritual well-being as defined by the SWB scale. Some SLQI subscales which did not have significant relationships with all three scores of the SWB, Good Reputation, Desire to be an Overseer, and Not Self-Willed did not correlate significantly with any SWB scale. Absence of correlation between SWB scales and these three subscales suggest that the latter do not accurately quantify their constructs or are unrelated to spiritual well-being as measured by the SWB.

H4 was postulated on the rational assumption that spiritual maturity or leadership as reflected by the subscales of the SLQI would be significantly related to Intrinsic religiosity as defined by the 21 item version of the ROS (Allport and Ross, 1967; Feagin, 1964). The Intrinsic (I) subscale has been shown to have a significant relationship with an internal locus of

control (Strickland and Schaffer, 1971) and "committed" religiosity as defined and measured by Spilka (1977).

The fact that the results demonstrated significant relationships between the I subscale on only two subscales of the SLQI (Desire to be an Overseer and Lover of Good) fails to confirm the hypothesis. This weakens the construct validity of the SLQI.

The mean sample score (12.01) and small standard deviation for I in this sample (2.73), combined with low scores on Extrinsic religiosity (also with limited variance), indicate a very intrinsic population with little variance on the construct. The fact that Desire to be an Overseer correlated very strongly with I and had no correlation to any SWB score raises question about the construct validity of this scale since Intrinsic religiosity has been shown to be significantly correlated to all three scores of the SWB scale (Ellison and Paloutzian, 1979). However, the absence of correlation in this instance may be related to the attenuated range of I for this sample. A more diverse sample in regard to intrinsic religiosity would provide an opportunity to examine this explanation.

The IBS and the MMPI were added to the battery to provide measures of a tendency to endorse items in a

socially approved manner and to provide discriminant and convergent validity (Anastasi, 1976). It was assumed that characteristics of spiritual leadership or maturity would reflect appropriate relationship skills (measured by the IBS) and an absence of clinical psychopathology (measured by the MMPI).

H5 was postulated on the basis of the rational assumption that spiritual leadership or maturity as measured by the SLQI would be diametrically opposed to the direct or indirect expression of aggressiveness as defined and measured by the IBS. As demonstrated in the results, this hypothesis received considerable support. Only Good Reputation, Desire to be an Overseer, and Holy did not correlate with any of the Aggressiveness subscales significantly in a negative direction (except for Holy correlating with Demanding Rights). As would be expected, SLQI total score correlated strongly in a negative direction with each of the Aggressiveness scales. The results of these correlations strengthen the overall discriminant validity (and therefore the construct validity) of the SLQI but continues to cast doubt on the validity of the subscales Good Reputation and Desire to be an Overseer (both also failed to correlate positively with any IBS measure of

assertiveness).

Several other correlations concerning some of the SLQI subscales and the assertiveness and relationship scales are worth discussion. Temperate, Prudent, and Able to Manage Family as defined by the SLQI manual are all characteristics which one would expect to require or reflect assertiveness, self-confidence, and healthy social interaction. The significant positive relationships between Temperate and Prudent with SGR (general measure of assertiveness) and Self-Confidence, coupled with the negative relationships to Dependency and Shyness strengthen the construct validity of those subscales. The same can be said of the positive relationship between Able to Manage Family with SGR and Initiating Assertiveness and the negative relationship with Dependency. The strong positive relationship of Gentle to Conflict Avoidance reflects the operational definition of "one who yields his rights in order to avoid strife and promote the good of others" (Wichern, 1980, p. 3). However, this construct may not be healthy and may not be what Paul had in mind when he used the term epieidis in 1 Timothy 3.

Finally, as Table 13 shows, there is a tendency for the SLQI subscales to correlate negatively with the

Dependency and Shyness subscales of the IBS, and in fact, the total SLQI scores had significant negative correlations with both. The discriminant validity of those scales correlating significantly to the Dependency and Shyness subscales is strengthened on the rational assumption that as traits of spiritual leadership or maturity, they would not be related to unhealthy relationship styles.

H6 proposed a significant positive relationship between a tendency to endorse subtle items in a socially desirable manner (K,IM) and high scores on the SLQI. The hypothesis was postulated on the basis of the nature of the sample (graduate students) and the purpose of the MMPI administration (admission candidates). It should be noted here that the purpose of examining the correlational relationships between the subscales of the SLQI and the Impression Management (IBS) and K (MMPI) scales was not to demonstrate construct validity, but to evaluate the impact of social desirability on SLQI scores. The validity of any test is threatened by denial or defensive distortion on the part of the respondent (Wiggins, 1973).

The strong positive relationship between SLQI subscale scores and the IM and K scales suggest the

probability that respondents denied inadequacies in constructs or traits that the SLQI attempts to quantify (Duckworth, 1979). The high sample mean scores and the strong positive relationships between the subscales of the SLQI and all of the validity scales of the IBS and MMPI suggest (1) in the absence of a curvilinear relationship between validity scales and the SLQI, caution should be exercised when the validity of the SLQI is considered with this population and (2) consideration should be given to providing a measure of social desirability for the SLQI.

In summary, the results of the previous chapter concerning the hypotheses provide at best marginal construct validity for the SLQI on the basis of correlations with the SWB, ROS, IBS, and MMPI. Relationships between the subscales of the SLQI and the SWB proved overall to be noteworthy (except for three subscales of the SLQI). However, the fact that only two subscales of the SLQI correlated significantly with the I subscale of the ROS in a very intrinsic sample weakened the convergent validity of the SLQI on the basis of reported strong correlations between the scale of the SWB and the I subscale of the ROS. The attenuated range of I for this sample should also be

taken into consideration. As expected, most of the subscales demonstrated very strong negative relationships to the aggression subscales of the IBS as well as no significant relationships to the pathology scales of the MMPI. As a result of the strong relationships between the subscales of the SLQI and the IM (IBS) and K (MMPI) subscales, the mixed results of the hypotheses of the study should be considered in light of the sample's strong tendency to answer self-report inventories in a socially desirable manner. Further exploration of the construct validity of the SLQI is discussed in the next section.

Questions

The questions of this study relate to the factorial composition of the SLQI at the subscale level. Anastasi (1976) suggests that factor analysis of a test at the item level, scale level, or with a battery of other tests contributes to the "factorial validity" or to an understanding of the factorial composition of the test. A factor analysis at the scale level such as the one reported in the results of this study provides an empirical explanation of variance attributable to each factor in this particular sample

(Kerlinger, 1973).

The SLQI, by the definition of the traits measured, design, purpose, scoring format, and interpretive methodology attempts to quantify 19 separate and distinct constructs. However as rule, most tests consist of only two to seven significant factors. Wichern (1980) in the SLQI manual acknowledges the clustering of SLQI subscales in his suggestions for SLQI interpretation. He proposes two different "ways" to interpret an SLQI profile.

First, he suggests that the SLQI subscales can be evaluated on the basis of "externals, internals and God". The "external" factor is how the respondent evaluates how others perceive him (Upright, Above Reproach, Good Reputation, Respectable, Family, Not Quick-Tempered, Gentle, and Self-Willed). The "internal" factor is how the respondent perceives himself (Able to Teach, Temperate, Prudent, Overseer, Husband of One Wife, Not addicted to Wine, Greed, Love of Good, Hospitality, and Self-Controlled). The "God" factor is simply how he evaluates how God perceives him (Holy).

Second, Wichern (1980) suggests that the scales can be clustered according to social attitudes or

behaviors. These "categories" include leadership (Able to Teach, Overseer, and Family), interpersonal relationships (Self-Controlled,, Not Quick-Tempered, and Gentle), life values (Not Addicted to Wine and Greed), self-awareness (Temperate and Prudent), community relationships (Upright, Good Reputation, Above Reproach, and Respectable), self-centeredness (Love of Good, Hospitality, and Not Self-Willed).

The weaknesses of this approach to understanding the factorial composition of the SLQI is twofold: (1) it is a rational explanation with no empirical basis (2) it is difficult to distinguish even rationally derived factors on the basis of "self-perception" since the SLQI is a "self-report" instrument. By applying subjective techniques to the construction and interpretation of the SLQI, the test itself then falls prey to the very same problem it would attempt to alleviate in the leadership selection processes of religious domains. The empirical evaluation of factorial composition through factor analysis with a specific sample provides objective criteria by which the composition of the SLQI can be more reliably and accurately discovered for that sample.

The five factors produced by a principle

components factor analysis with eigenvalues above 1.0 (Table 16) (Kerlinger, 1973) in the results "explained" or accounted for 59.9% of the total variance. Since the rotation was Varimax (the first factor explains the largest amount, etc.) and orthogonal, the communalities of the factors and the proportion of the total amount of variance of each factor did not change with the rotation of the axes.

The nearly 60% of variance accounted for by the five factors of this factor analysis is respectable as far as the performance of other tests is concerned. The five factors (Table 17) produced from this advanced technique for examining correlational data also make some degree of intuitive sense. Suggested "labels" for each of these factors are offered below based on an examination of items for each scale.

Factor 1 could be described as "Internal Locus of Control". It is composed of the scales Temperate (assertive of opinion, confident), Greed (nonmaterialistic, oriented to spiritual values), Prudent (responsible, emotionally stable, good manager of time and money), Respectable (organized, respected by others), Not Quick-Tempered (Handles anger appropriately, assertive), and Not Self-Willed

(altruistic, considerate of others).

Factor 2 could be described as "Interpersonal Skills". It is composed of the scales Upright (honest, without prejudice), Gentle (nonaggressive, patient), Hospitable (actively compassionate towards others), and Lover of Good (optimistic, holds to biblical values).

Factor 3 could be described as "Self-Control". It is composed of the scales Able to Manage Family (family leader), Not Addicted to Wine (avoids excess or substance abuse), Able to Teach (knowledge of Scripture, ability to communicate), Husband of One Wife (control of sexual impulses, moral sexual behavior), and Self-Control (control of impulses).

Factor 4 could be described as "Reputable". It is composed of the scales Good Reputation (reputable) and Above Reproach (reputable, honest).

Factor 5 could be described as "Intrinsic Participant in Spiritual Lifestyle". It is composed of the scales Desire to be an Overseer (aspirant to church leadership) and Holy (devout, places priority on the Bible and relationship to God).

While some intuitive sense can be made of the above five-factor explanation of the SLQI (Table 17), the results show that: (1) Factor 1 accounts

for an overwhelming amount of variance (33.9%) in relation to the other factors (2) a cursory examination of trait definitions in the SLQI manual (Wichern, 1980) and the author's attempts above demonstrate a lack of precise construct definitions (3) correlations among factors in the five-factor explanation of the SLQI are very high (Table 18), indicating a relatively large amount of common variance and therefore indistinct factors.

A confirmatory factor analysis using the multiple groups technique (Gorsuch, 1983) and forcing a three factor explanation still produced high factor correlations (Table 19 and 20). However, a two-factor confirmatory factor analysis produced a low factor correlation ($\underline{r} = .148$). In this two-factor explanation of factorial composition, the Factors 1-3 and 4 and 5 collapse into the first and second factors respectively. In essence, the subscales Good Reputation and Above Reproach load positively and the subscales Desire to be an Overseer and Holy load negatively to the second factor of this two-factor explanation of the SLQI. The 15 other subscales all load positively on the first factor. These results cast serious doubt on the ability of the SLQI to discriminate 19 separate factors

or constructs. In fact, a two-factor explanation appears to best reflect the present structure of the SLQI.

The result of the subscale factor analytic examination suggest that either there is a large degree of item-to-subscale infidelity present in the SLQI, or assuming such fidelity, spiritual maturity and/or leadership as measured by the SLQI is best explained by a large "G" or "general" factor and one or more "s" or "specific" factors. A cursory examination of the item-to-scale assignment in the SLQI suggest the former is the best probable explanation.

As noted in the methodology, the construction of the SLQI included item generation by Wichern (1979, 1980) that was based upon operational definitions of Scriptural "qualities". Wichern (1980) then notes that the item pool was given to "a panel of nine seminary professors" who scored the items in the direction which would best reflect manifestation of the 19 traits" (p. 1). However, Wichern then notes the next step in the construction of the test was the rewriting of the items to "obtain a 60/40 balance of affirmative statements" (p. 1). This revision, however, contaminates of the "face validity" of the SLQI since

some of the items were rewritten after evaluation by the judges. In addition, the scoring key of the SLQI reflects 29% of the items are actually scored in the affirmative.

The scoring key reflects item-to-scale overlap (the same item is used on different subscales), item redundancy (the same item is scored twice on the same scale), and questionable item-to-scale assignment (the item content does not appear to reflect the operational definition of the scale trait). For example, on the subscale Prudent, items 73 and 98 are exactly the same ("I sometimes feel a goal for myself would be to never rely on anyone for anything"). The same is true of items 87 and 98 on the same subscale ("I find it hard to set aside a task that I have undertaken, even for short time). Item number 77 on the Prudent subscale is the same as item number 204 on the Not Self-Willed scale ("When I get into a conversation I am uncomfortable unless I get people to talk about subjects I know a great deal about"). Wichern (1980) defines "Prudent" as someone "who is not swayed by impulses, but rather has his character and conduct under control" (1980, p. 3). The item assignment of "There is no respect these days for people who really

do not know what is going on" (item number 76) is at least curious if not inappropriate to the trait definition.

Several other items are scored on two different scales, repeated within the same scale, or are of questionable appropriateness for the trait definition. When the same item appears and is scored twice in the same scale for a cumulatively designed test (Prudent had a standard deviation of 2.5), the score will be artificially inflated or deflated. When the content of an item does not reflect the definition of the trait being measured, the item only contributes to the error variance of the scale.

The examples of poor item assignment and credibility mentioned above, and those not mentioned for the sake of space, undoubtedly contribute significantly to the results of the factor analysis in this study. There is no possibility of scale validity if the integrity of the items which compose it is lacking.

In summary, the marginal results of the correlational and scale level factor analytic data cast serious doubt on the construct validity of the SLQI with this sample. The implications of these results are

discussed below.

Implications

The result of this study indicates that there is a need to reconsider the present value of administering the SLQI to the seminary population with which it is now used. It is may also be advisable to withhold distribution of the inventory to other users until such time as further studies on the construct validity of the test can be performed and the problems suggested by this study are resolved through a revision of the present SLQI.

The Standards for Educational and Psychological Tests (1974) states that

When a test is published or otherwise made available for operational use, it should be accompanied by a manual (or other readily available information) that makes every effort to follow the recommendations of these standards and, in particular, to provide the information required to substantiate any claims that have been made for its use. (pp. 9-10)

At the present time only minimal information (in view of the above standards) exists to substantiate the use

of the SLQI in the seminary population where it is now used or on a wider basis in churches or evangelical Christian organizations.

The recommendation that the SLQI be used only for research purposes is made on the basis of the absence of a sufficient number of studies. Validity is not proved or disapproved on the basis of a single study. At the present time more studies on the reliability and validity of the SLQI are necessary. Suggestions for further research are made below.

Suggestions for Further Research

Despite the marginal support provided for the SLQI in this study, the epistemology of the inventory's constructs is unique (Gorusuch, 1984) and appropriate to a specific need of a specific population. Wichern has clearly started the development process of a badly needed instrument and is to be commended for his intent. Any instrument that attempts to economically and efficiently quantify information for decision making in a particular group must consider and reflect the value system of that group. By using biblical information about the qualities of a leader to compose constructs, items, and scales, Wichern (1980) has acknowledged the importance of the Bible to evangelical

Christianity. The continuing development of a more reliable and valid SLQI is an important goal.

Further research should be considered both in the construction and validation of the SLQI. The results of this study suggest that a reexamination of the biblical passages on which the SLQI is predicated is needed to discern whether or not the qualities given are intended to be mutually exclusive (Getz, 1974).

It appears that item-level analysis is particularly important. This should be directed towards (1) eliminating item overlap (2) eliminating item redundancy (3) reexamination of item-to-scale fit (rational and empirical) and (4) consideration of a Likert format to improve sensitivity to item variance. After item fidelity has been improved, further reliability and validity studies with seminarian, church leaders, and other populations with which the instrument will be used should then be performed.

This author would take exception to Gorsuch's (1984) suggestion that there is no need for the development of any more measures of religiosity. There is a need for further understanding of the paradigms (Kuhn, 1970) active in the psychology of religion. Issues such as the understanding of spiritual health,

maturity, and well-being (Ellison, 1984) should be further investigated in order to understand the many facets of religion, particularly Christianity. Psychology, for example, has an obligation to understand, respect, and when possible, aid Christians in seeking and securing a lifestyle and value system consonant with the Bible and their faith (Parker, 1981).

Conclusion

The purpose of this study was to examine the construct validity of the SLQI for a sample of male seminarians. The results indicate some convergent and discriminant validation of the SLQI. However, at the present time, construct validity of the SLQI is at best marginal.

Correlational relationships between the subscales of the SLQI and those of the SWB, ROS, IBS, and the MMPI were mixed. High scores on the validity scales of the IBS and MMPI suggest the possibility that scores on all instruments reflected a tendency on the part of the sample to answer items in a socially acceptable manner.

Scale level factor analysis of the SLQI from this sample suggests the possibility of a five-factor explanation of the structure of the SLQI. However, the

large amount of variance due to one factor and confirmatory factor analyses suggest that the structure of the SLQI may best be explained by a large "general" factor and one or more smaller "specific" factors.

As a result of this study and the lack of others concerning the construct validity of the SLQI, it is recommended that the present administration of the inventory be limited to research studies. These studies should examine the interpretation of the passages involved, item level analysis, and further reliability and validity studies. It was also suggested that these validity studies be done on samples from the populations with which the SLQI is intended to be used.

Finally, it was concluded that more research on both the constructs and measurement of religion, in particular Christianity, needs to be done in order to provide a greater understanding of the religious factor. Psychology has an obligation to understand, respect, and, when possible, aid Christians in seeking and securing a lifestyle and value system consonant with the Bible and their faith.

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APPENDIX A
WRITTEN INSTRUCTIONS

DALLAS THEOLOGICAL SEMINARY

August 26, 1983

Dear Student:

I would like to take this opportunity to ask you to participate in a research project concerning spiritual growth and maturity among DTS students. This study was conceived by one of our graduates, Tom Parker, who is presently working on his doctorate in clinical psychology at Western Conservative Baptist Seminary in Portland. Tom is also the intern this year in our Counseling Services. He is concerned, as I am, about the characteristic of spiritual growth, particularly as students attend Dallas Seminary and spend four to five years of their lives here.

The study will examine test data from the MMPI, the SIQI, and three tests that Tom has selected. The most important factor that we would like to assure you of is that your participation in the study is confidential. You can be a significant person in helping us assess the needs of our student body as well as to understand the phenomena of spiritual growth here at DTS and in a believer's life. Hence, we really need your help and participation.

We would like you to complete these inventories which should take between 45 minutes to an hour at one sitting. You may use the Counseling Services testing room or other areas as the secretary will make them available to you. If you cannot complete the inventory at one sitting, we would like you to do it at least within three days. When you have completed the inventories, please return them to the secretary at Counseling Services.

It is important for you to understand that your material will be confidential. Hence, a number will be assigned to your test packet and all of your results. Thereafter, no testing data will be identified by any personal name. Rather, it will only be identified by number. We would like to ask you to complete the form at the bottom of the letter giving us permission to utilize your test data in this study.

At the end of the study, sometime during the fall of 1983, we hope to provide you with information about your test results and the results of the study. We would again like to ask your participation and indicate how important this study is to our continued work in encouragement of spiritual growth among our students here at DTS. Please contact us if you have any questions.

Yours in Christ,

Frank E. Wichern, PhD
Director of Counseling Services

I hereby authorize Dallas Theological Seminary to release my test results to Mr. Tom Parker for the purpose of a research project. I understand my testing data will be treated confidentially. I wish to receive the results. Yes No

Name _____ Date _____
3009 SWISS AVENUE • DALLAS TEXAS 75204 • PHONE (214) 824-3094

February 18, 1983

DALLAS THEOLOGICAL SEMINARY

Dear Student:

I would like to take this opportunity to ask you to participate in a research project concerning spiritual growth and maturity among DTS students. This study was conceived by one of our graduates, Tom Parker, who is presently working on his doctorate in clinical psychology at Western Conservative Baptist Seminary in Portland. Tom is concerned, as I am, about the characteristic of spiritual growth, particularly as students attend Dallas Seminary and spend four to five years of their lives here.

The study will examine test data from the MMPI, the SLQI, and three tests that Tom has selected. The most important factor that we would like to assure you of is that your participation in the study is *confidential*. You can be a significant person in helping us assess the needs of our student body as well as to understand the phenomena of spiritual growth here at DTS and in a believer's life. Hence, we really need your help and participation.

We would like you to do the following. *First*, come to the Counseling Services area and pick up a packet concerning the three additional inventories. *Second*, we would like you to complete those inventories which should take between 45 minutes to an hour at one sitting. You may use the Counseling Services testing room or other areas as the secretary will make them available to you. If you cannot complete the inventory at one sitting, we would like you to do it at least within three days. When you have completed the inventories, please return them to the secretary at Counseling Services.

It is important for you to understand that your material will be confidential. Hence, a number will be assigned to your test packet and all of your results. Thereafter, no testing data will be identified by any personal name. Rather, it will only be identified by number. *We would like to ask you to complete the form at the bottom of the letter giving us permission to utilize your test data in this study.*

At the end of the study, sometime during the summer of 1983, we hope to provide you with information about your test results and the results of the study. We would again like to ask your participation and indicate how important this study is to our continued work in encouragement of spiritual growth among our students here at DTS. Please contact us if you have any questions.

Yours in Christ,



Frank B. Wichern, PhD
Director of Counseling Services

FBW:cjh

I hereby authorize Dallas Theological Seminary to release my test results to Mr. Tom Parker for the purpose of a research project. I understand my testing data will be treated confidentially. I wish to receive the results of this study. ☐ Yes ☐ No

(Name)

(Date)

DALLAS THEOLOGICAL SEMINARY

Dear Student,

On February 18th you were contacted concerning participation in a research project which dealt with spiritual growth and maturity among randomly selected DTS students of the first year class.

Your participation is vital in completing this research and we would like to remind you of the opportunity of contributing to our understanding of this important dimension.

We would like you to do the following. First, come to the Counseling Services area and pick up a numbered packet containing three brief inventories. Second, we would like you to complete these inventories, which should take between 45 minutes to one hour, at one sitting. You may use the Counseling Services testing room or other areas as the secretary will make them available to you. If you cannot complete the inventories at one sitting, we would like you to do it at least within three days. When you have completed the inventories, please return them to the secretary at the Counseling Services.

It is important for you to understand that your material will be confidential. Hence, a number will be assigned to your test packet and all of your results. At the end of this study we will make available to information about your test results and the results of the project. Please contact us if you have any questions.

CONTACT CLAUDIA AT COUNSELING SERVICES THIS WEEK AND LET HER KNOW OF YOUR DECISION CONCERNING PARTICIPATION.

Yours in Christ,



Frank B. Wichern, PhD
Director of Counseling Services

I hereby authorize Dallas Theological Seminary to release my test results for the purpose of a research project. I wish to receive the results of this study. ☐ Yes ☐ No

(Name)

3909 SWISS AVENUE • DALLAS TEXAS 75204 • PHONE (214) 824 3094

(Date)

Construct Validity

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APPENDIX B
INSTRUMENTS

SLQI

SPIRITUAL LEADERSHIP QUALITIES INVENTORY

This survey is one way of describing human beings in terms of their beliefs, attitudes and values. The survey consists of numbered statements. Read each statement and decide whether it is *true as applied to you or false as applied to you*.

You are to mark your answers directly on the survey sheet. If a statement is TRUE or MOSTLY TRUE, as applied to you, blacken in the circle in the column headed 'T'. If a statement is FALSE or NOT USUALLY TRUE, as applied to you, blacken in the circle in the column headed 'F'.

Remember to give YOUR OWN opinion of yourself! *Do not leave any blank spaces if you can avoid it.* Be sure to let your responses reflect how you feel at the present time.

name _____

date _____ sex _____ age _____

occupation _____

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Frank B. Wichern, Ph.D.



Believer Renewal Resources

Construct Validity

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	TRUE	FALSE
1. If others fail to recognize how good I am it is because of their own limitations	(T)	(F)
2. I rarely find myself so overcome by emotion that I cannot meet the people I work with.	(T)	(F)
3. At times I am afraid that things I have done in the past will catch up with me.	(T)	(F)
4. I have little trouble because of a guilty conscience.	(T)	(F)
5. At my work area or desk, I frequently create such a mess that I can't get anything done.	(T)	(F)
6. My will power is strong when it comes to passing up food.	(T)	(F)
7. It makes me angry when others refuse to accept my good ideas.	(T)	(F)
8. If you don't look out for yourself nobody else will.	(T)	(F)
9. There are a few people who know things about me which if told could cause me great embarrassment.	(T)	(F)
10. I am sometimes depressed because of things that I did in my past.	(T)	(F)
11. I admire someone who will point out an error even though it may cost them.	(T)	(F)
12. I am often bothered by feelings of guilt.	(T)	(F)
13. I believe each person has complete freedom to eat, drink or act however he wants.	(T)	(F)
14. I don't mind being asked to do a humbling job which no one else will take.	(T)	(F)
15. At times I feel like swearing.	(T)	(F)
16. My conscience often bothers me with the feeling that I am not doing what I ought to be doing.	(T)	(F)
17. I often laugh at a dirty joke or story just so my friends or co-workers don't think I'm stuck-up.	(T)	(F)
18. If I took a test and the grader missed a mistake I made, I wouldn't tell him.	(T)	(F)
19. I believe that there is a code which demands that all men act fairly toward one another.	(T)	(F)
20. If I could get into a movie without paying and be sure I was not seen, I would probably do it.	(T)	(F)
21. I usually feel irritated when I have to take orders from others.	(T)	(F)
22. People in my community would say that I am a person with high moral values.	(T)	(F)
23. At times I feel like swearing.	(T)	(F)
24. I frequently laugh at dirty jokes.	(T)	(F)
25. What others think of me does not bother me.	(T)	(F)
26. I secretly enjoy someone who is good at fooling others even if it sometimes embarrasses them.	(T)	(F)
27. Most people are too soft and if they were more critical they wouldn't get taken advantage of.	(T)	(F)
28. I think nearly anyone would tell a lie to keep out of trouble.	(T)	(F)
29. I frequently find myself going out of my way to make sure the other guy has an equal chance.	(T)	(F)
30. I really enjoy a good hot argument.	(T)	(F)
31. I don't enjoy conversations in which the faults or misdeeds of others are being discussed.	(T)	(F)
32. I secretly feel good when I learn that someone I dislike has gotten into trouble.	(T)	(F)
33. Sometimes when others speak too highly of an acquaintance, I try to point out his defects.	(T)	(F)
34. If I am given the wrong change by a clerk, I usually try to return the incorrect amount.	(T)	(F)

TRUE FALSE

35. If I had to choose, I would rather be spiritually close to God than be physically and emotionally close to people (T) (F)
36. People who invest their time in studying the Bible are not aware of the real problems facing man (T) (F)
37. I have often thought that I would like to be a leader in a local church (T) (F)
38. The main purpose of man is to know God and worship Him (T) (F)
39. Frankly, there are so many religions and cults that I doubt if any of them are right (T) (F)
40. I sometimes find myself continuing a discussion just because I don't want to be wrong (T) (F)
41. I am not impressed by the men who lead the church I attend (T) (F)
42. Being able to teach a subject well is as important as knowing that subject (T) (F)
43. I don't have any desire to be a church leader (T) (F)
44. I would rather read a good novel or a true life adventure than to read the Bible (T) (F)
45. I wouldn't mind being an elder or deacon if I was chosen (T) (F)
46. While I may not consistently study truths about God, I do make it a priority to seek Him (T) (F) 2
47. A regular program of Bible study should be a priority for most people (T) (F)
48. I would like to be an elder or deacon if chosen (T) (F)
49. I believe that by meditating on the Bible and praying one may know God better (T) (F)
50. I enjoy being able to get up in front of a group and sharing new ideas I have had (T) (F)
51. Elders or deacons are sincere people who should be praised for their work (T) (F)
52. The life of Jesus shows that all men can know God if they just look in themselves (T) (F)
53. Some of the greatest moments of my life have come through seeking to know God (T) (F)
54. Theologians have so confused people about religion that I would rather watch T.V. than read a religious book (T) (F)
55. Elders or deacons are just like anyone else, only they try to look good (T) (F)
56. Serving in activities at my church is more important than having time just for myself (T) (F)
57. I have made the study of the Bible and seeking God my highest priority (T) (F)
58. I would rather help a person to grow spiritually than develop my own interests (T) (F)
59. I would feel good about working regularly on projects for my church (T) (F)
60. Christians overemphasize the abstract knowledge of God and forget to see the good in human beings (T) (F)
61. I am a doer, not a planner (T) (F)
62. Planning ahead makes things turn out better (T) (F)
63. I don't easily become impatient with people (T) (F) 2
64. Talking in front of a group of people makes me very anxious (T) (F)
65. The main purpose of man is to know God and worship Him (T) (F)

Construct Validity

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	TRUE	FALSE
66. I am not easily swayed by others' opinions.	(T)	(F)
67. I have periods of days, weeks, or months when I can't take care of things because I can't "get going"	(T)	(F)
68. I am called on by my friends in times of trouble	(T)	(F)
69. I feel I am well suited to be a leader	(T)	(F)
70. I usually have to stop and think before I act even in trifling matters	(T)	(F)
71. I have been asked to lead groups where a difficult decision had to be made.	(T)	(F)
72. I do many things which I regret afterward (regret things more or more often than others seem to)	(T)	(F)
73. I sometimes feel a good goal for myself would be to never have to rely on anyone for anything	(T)	(F)
74. I don't easily become impatient with people.	(T)	(F)
75. I have met problems so full of possibilities that I have been almost unable to make up my mind about them.	(T)	(F)
76. There is no respect these days for people who really know what is going on	(T)	(F)
77. When I get into a conversation I am uncomfortable unless I get people to talk about subjects I know a great deal about	(T)	(F)
78. If other people fail to recognize how good I am it is because of their limitations	(T)	(F)
79. I have had periods in which I carried on activities without knowing later what I had been doing.	(T)	(F)
80. The human mind has so much potential that it will be able to bring world peace, end pollution, and bring in a "new age"	(T)	(F)
81. I feel resentment when others fail to notice and praise me for my achievements	(T)	(F)
82. People who say that man is innately bad are just too pessimistic and are overlooking the human potential for justness.	(T)	(F)
83. One of my greatest desires is to be a truly wise man.	(T)	(F)
84. I rarely experience times when I am so confused I can't decide what to do.	(T)	(F)
85. I have good success in settling disputes between people.	(T)	(F)
86. In order to be really successful, I must be willing to take big risks	(T)	(F)
87. I find it hard to set aside a task that I have undertaken, even for a short time	(T)	(F)
88. I am a doer, not a planner.	(T)	(F)
89. At times I feel like smashing things.	(T)	(F)
90. I frequently feel like swearing	(T)	(F)
91. I feel better about my life than I ever have.	(T)	(F)
92. At times my thoughts have raced ahead faster than I could speak them	(T)	(F)
93. I get mad easily and then get over it soon.	(T)	(F)
94. I frequently find myself worrying about something	(T)	(F)
95. When you do something wrong there is very little you can do to make it right.	(T)	(F)
96. Wishing can make good things happen.	(T)	(F)
97. Planning ahead makes things turn out better.	(T)	(F)
98. I sometimes feel a good goal for myself would be to never have to rely on anyone for anything	(T)	(F)
99. I find it hard to set aside a task that I have undertaken, even for a short time	(T)	(F)

Construct Validity

154

	TRUE	FALSE
100. Society has surrounded man's sex drive with too many prohibitions	<input type="radio"/> T	<input type="radio"/> F 4
101. I have very few quarrels with members of my family	<input type="radio"/> T	<input type="radio"/> F
102. I want my wife/husband to feel like she/he is the most important person in my life	<input type="radio"/> T	<input type="radio"/> F
103. Teenagers have too many problems and should be ignored.	<input type="radio"/> T	<input type="radio"/> F
104. When I have problems with my family life, I usually try to work harder at my job.	<input type="radio"/> T	<input type="radio"/> F
105. I think that any religion which teaches that God made man with a sex drive and then sets up restrictions is unreasonable	<input type="radio"/> T	<input type="radio"/> F
106. I spend time thinking about new and unusual ways to enjoy sex.	<input type="radio"/> T	<input type="radio"/> F
107. Because mothers spend more time with their children they are better able to make decisions about privileges and discipline	<input type="radio"/> T	<input type="radio"/> F
108. The main part of man's life is his work and a woman should take care of the home	<input type="radio"/> T	<input type="radio"/> F
109. An occasional visit to an adult bookstore never hurt anyone	<input type="radio"/> T	<input type="radio"/> F
110. If my children talked back to me, I'd spank them	<input type="radio"/> T	<input type="radio"/> F
111. Sexual enjoyment is God's greatest gift to mankind	<input type="radio"/> T	<input type="radio"/> F
112. My wife/husband and I rarely agree on any decision.	<input type="radio"/> T	<input type="radio"/> F
113. My interest in sex is about average, but I sometimes find myself having long periods of erotic fantasy	<input type="radio"/> T	<input type="radio"/> F
114. I find I can talk more openly and honestly to friends at work than I can my family (or wife).	<input type="radio"/> T	<input type="radio"/> F
115. If I have a choice, I will go see a sexy movie in preference to others	<input type="radio"/> T	<input type="radio"/> F
116. If I had teen-age children, I wouldn't be particularly embarrassed if they were arrested for alcohol or drug use ...	<input type="radio"/> T	<input type="radio"/> F
117. At times when I am around an attractive person of the opposite sex, I am preoccupied with thoughts of touching, embracing, and going to bed with that person	<input type="radio"/> T	<input type="radio"/> F
118. It is probably better not to tell your children about sex since they probably learn more about it at school	<input type="radio"/> T	<input type="radio"/> F
119. In the final analysis, pleasure is not the most important thing in life	<input type="radio"/> T	<input type="radio"/> F
120. I agree with the concept that "kids will be kids," and should be allowed to sow their "wild oats".	<input type="radio"/> T	<input type="radio"/> F
121. I think I could give up about anything except sexual feelings, thoughts, and pleasures	<input type="radio"/> T	<input type="radio"/> F
122. Children should make up their own minds on religion without their parents' prejudices	<input type="radio"/> T	<input type="radio"/> F
123. I would rather read a magazine about current events than a magazine which contains sex-related articles	<input type="radio"/> T	<input type="radio"/> F
124. Most of the time parents listen to what their children have to say	<input type="radio"/> T	<input type="radio"/> F 4
125. It is useless to try to get my way at home.	<input type="radio"/> T	<input type="radio"/> F
126. No one can tell me when and how and with whom I can make love.	<input type="radio"/> T	<input type="radio"/> F
127. I have little to say about what I eat at home	<input type="radio"/> T	<input type="radio"/> F
128. I don't especially enjoy watching movies depicting intimate love scenes.	<input type="radio"/> T	<input type="radio"/> F
129. I have little to say about what my family does	<input type="radio"/> T	<input type="radio"/> F
130. Sexual enjoyment is God's greatest gift to mankind	<input type="radio"/> T	<input type="radio"/> F
131. I want my wife/husband to feel like she/he is the most important person in my life	<input type="radio"/> T	<input type="radio"/> F

Construct Validity

155

	TRUE	FALSE
132. I have resentments which I have stored up and harbored for long periods.	(T)	(F)
133. Although I am usually aware of my immediate response to a situation, I have little difficulty with impulsiveness.	(T)	(F)
134. At times I enjoy a good argument.	(T)	(F)
135. Most people are uninformed and need someone to tell them what to do.	(T)	(F)
136. I will go out of my way to avoid causing a fight.	(T)	(F)
137. When someone insults or hurts me I think for hours about things I should have said or done to get even	(T)	(F)
138. I do not let interruptions in my schedule disorganize me so that I cannot finish my jobs.	(T)	(F) 5
139. In meetings I feel I should have something to say about every issue.	(T)	(F)
140. Frequently I feel frustrated because I cannot think of a way to get even with someone who deserves it	(T)	(F)
141. I have frequently found myself so overwhelmed by anger that I have thrown something or cursed	(T)	(F)
142. I enjoy seeing a shrewd lawyer change a jury's mind.	(T)	(F)
143. When I think how many stupid people are allowed to drive, I get angry	(T)	(F)
144. Doing things on the spur of the moment is just not characteristic of me.	(T)	(F)
145. If I propose an idea or belief, I usually will push it until the majority of people accept it.	(T)	(F)
146. If I were in the military, I would have some problems in accepting the discipline.	(T)	(F)
147. I am not surprised when someone goes out of his way to please me or to help me	(T)	(F)
148. It makes me angry when others refuse to accept my good ideas	(T)	(F)
149. I am known to my friends as a man who exhibits self-discipline	(T)	(F)
150. It is impossible to expect that any group of thinking men could agree consistently.	(T)	(F)
151. The best defense is a strong offense.	(T)	(F)
152. I believe that I can stop myself from catching a cold	(T)	(F)
153. I really enjoy a good hot argument	(T)	(F)
154. I hate to talk to people who I know have talked badly about me in the past	(T)	(F)
155. I believe that if somebody studies hard enough he or she can pass any subject.	(T)	(F)
156. I admire the concept, "an eye for an eye and a tooth for a tooth"	(T)	(F) 5
157. God made the world but He expects men to work out their own problems.	(T)	(F)
158. Some people make me so angry I'd like to shout at them or slap their face	(T)	(F)
159. It makes me impatient to have people ask my advice or interrupt me when I am working on something important.	(T)	(F)
160. I frequently find myself daydreaming about ways to get back at people who have hurt me	(T)	(F)
161. I think most people mislead their friends just to gain sympathy and help	(T)	(F)
162. I can't think of anyone I really hate	(T)	(F)
163. I have sometimes opposed people who were trying to do something not because of what they were doing but just to oppose them.	(T)	(F)
164. If I am angry I think it's best to keep it to myself for several days.	(T)	(F)
165. It takes a lot of argument to convince most people of the truth	(T)	(F)

Construct Validity

156

	TRUE	FALSE
166. If a credit card company doesn't bill me I simply figure that it's their problem	(T)	(F)
167. I have used alcohol excessively.	(T)	(F)
168. When I lose money I get so uncomfortable I can hardly think about anything else	(T)	(F)
169. It's too bad so many people who haven't worked for it have money and position.	(T)	(F)
170. In the final analysis, pleasure is the main thing in life	(T)	(F)
171. I would prefer an easy comfortable life where I need to exert myself as little as possible to a life full of challenges and demands	(T)	(F)
172. I couldn't care less what people think of me as long as I have plenty of money	(T)	(F)
173. One of the things I would like to do is keep a well-stocked liquor collection.	(T)	(F)
174. If I am given the wrong change by a clerk, I usually try to return the incorrect amount.	(T)	(F)
175. I feel I sometimes misuse medicines I have been given.	(T)	(F)
176. I secretly dream of finding an envelope of money on the street	(T)	(F)
177. I prefer the company of people who drink very little or not at all.	(T)	(F)
178. One of my major goals in life is to acquire enough money so I can be sure of a secure future	(T)	(F)
179. I frequently find I am jealous when I hear about friends who have made fantastic savings on expensive items such as cars	(T)	(F)
180. I believe there is some truth in the old saying that you can "drown your sorrows" with alcohol	(T)	(F)
181. I enjoy telling my friends about tricking a salesman into making a good deal.	(T)	(F)
182. At times I have so enjoyed the cleverness of a crook that I wished he would get away with it.	(T)	(F)
183. I frequently use medication.	(T)	(F)
184. I enjoy movies or stories about men who "beat the system" either by taking valuables or escaping the authorities.	(T)	(F)
185. My will-power is strong when it comes to passing up food or drink	(T)	(F)
186. I would rather have a savings account of over \$5,000 than to have close relationships with my friends.	(T)	(F)
187. I worry over money and business	(T)	(F)
188. I find it difficult to share food or drink with others	(T)	(F)
189. My health is not good, and I frequently use medicines to keep going	(T)	(F)

6

6

GO ON TO THE NEXT PAGE

6

Construct Validity

157

	TRUE	FALSE	
190. I don't enjoy conversations in which the faults or misdeeds of others are being discussed	(T)	(F)	7
191. The philosophy of looking out for yourself appeals to me	(T)	(F)	
192. People who get all the breaks need to experience a few more troubles	(T)	(F)	
193. I sometimes enjoy conversations in which the faults or misdeeds of others are being discussed	(T)	(F)	
194. It would give me pleasure to be at a party where someone more popular than I am suffered embarrassment	(T)	(F)	
195. I enjoy having friends come over for supper or an evening	(T)	(F)	
196. God's plan for mankind is still the best plan	(T)	(F)	
197. I secretly feel good when I learn that someone I dislike has gotten into trouble	(T)	(F)	
198. I support missionaries because I believe they are doing a necessary job	(T)	(F)	
199. Sometimes when others speak too highly of an acquaintance, I try to point out his defects	(T)	(F)	
200. My friends feel that I am optimistic about life	(T)	(F)	
201. My meals are more enjoyable when I can feel free to eat as fast as I wish without worrying about others at the table	(T)	(F)	
202. The world is full of too many idealistic PollyAnna's; life is hard	(T)	(F)	
203. Frequently I find that I have eaten so much I just don't feel like doing anything but lying around	(T)	(F)	
204. When I get into a conversation I am uncomfortable unless I get people to talk about subjects I know a great deal about	(T)	(F)	
205. I wish I could get rid of the feeling of inferiority and resentment which the good fortunes of others frequently arouse in me	(T)	(F)	
206. Providing overnight lodging for my friends or even strangers does not bother me	(T)	(F)	
207. I often think, "I wish I were a child again"	(T)	(F)	
208. I don't have problems saying no to my own desires over spending time with my family	(T)	(F)	
209. People who seek their own self-interests before the needs of others probably have inferiority feelings	(T)	(F)	7
210. I think most people exaggerate their misfortunes in order to gain the sympathy and help of others	(T)	(F)	
211. Most people will use somewhat unfair means to gain profit or advantage rather than to lose it	(T)	(F)	
212. Some people are just born lucky	(T)	(F)	
213. I am against giving money to beggars	(T)	(F)	
214. People often disappoint me	(T)	(F)	
215. I have a good luck piece	(T)	(F)	
216. I find it hard to make talk when I meet new people	(T)	(F)	
217. I basically am a selfish person	(T)	(F)	
218. My motto is "when the going gets tough, the tough get going"	(T)	(F)	
219. I don't believe in letting the "grass grow under my feet"	(T)	(F)	
220. I believe that things will turn out like the Bible says	(T)	(F)	
221. I feel good when I learn that someone I dislike has gotten into trouble	(T)	(F)	
222. Mankind has never really understood God's redemptive plan through Jesus Christ	(T)	(F)	

SLQI SCORING RECORD

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DIRECTIONS FOR SCORING THE SLQI

Place the scoring key over the appropriate page of the survey booklet. Be sure to match the page numbers at top, bottom, and along the column in order to insure proper scoring. Align the key so that symbols overlay the T and F answers and the alignment numbers also overlay each other.

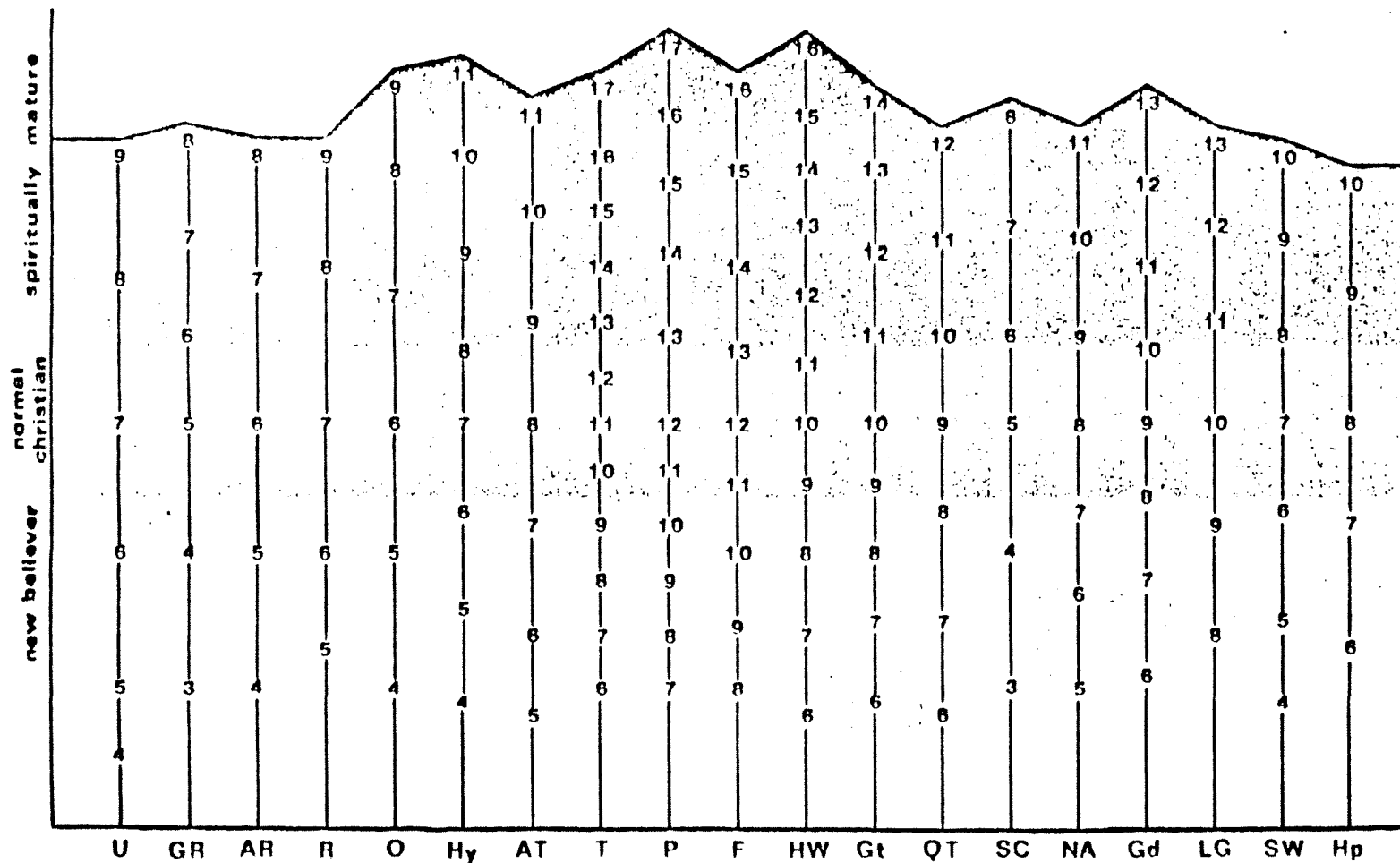
Count the T's and F's appearing inside the first symbol on that page.

Count only one symbol at a time. Enter this number in the score column, and repeat this procedure for the next trait and symbol on that page.

The procedure for aligning the scoring key (paragraph one) is repeated on each consecutive page. BE SURE TO ALIGN ALL PAGE NUMBERS PROPERLY, and double check alignment throughout scoring process.

PAGE	TRAIT	ABBREVIATION	SYMBOL	SCORE
PAGE 1	UPRIGHT	U	○	=
	GOOD REPUTATION	GR	□	=
	ABOVE REPROACH	AR	△	=
	RESPECTABLE	R	◇	=
PAGE 2	DESIRE TO BE OVERSEER	O	□	=
	HOLY	HY	△	=
	ABLE TO TEACH	AT	○	=
PAGE 3	TEMPERATE	T	□	=
	PRUDENCE	P	○	=
PAGE 4	ABLE TO MANAGE FAMILY	F	○	=
	HUSBAND OF ONE WIFE	HW	□	=
PAGE 5	GENTLE/UNCONTENTIOUS	Gt	□	=
	NOT QUICK TEMPERED	QT	○	=
	SELF-CONTROL	SC	△	=
PAGE 6	NOT ADDICTED TO WINE	NA	□	=
	GREED	Gd	○	=
PAGE 7	LOVE OF GOOD	LG	○	=
	NOT SELF-WILLED	SW	□	=
	HOSPITABLE	HP	△	=

When all nineteen traits have been scored, fold this sheet along dotted line and mark each score onto the profile.



SPIRITUAL LEADERSHIP QUALITIES INVENTORY

ANALYSIS PROFILE

Frank B. Wichern Ph.D.

name _____

date _____

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Construct Validity

Scoring Criterial for SLQI Scales

Scales	True	False
Upright (U)	11, 19, 29	1, 7, 8, 18, 26, 27
Good Reputation (GR)	2, 22, 34	9, 10, 17, 21, 30
Above Reproach (AR)	4,	3, 12, 16, 20, 24, 25, 28
Respectable (R)	6, 14, 31	5, 13, 15, 23, 32, 33
Desire to be Overseer (O)	37, 45, 48, 51, 53, 57, 65	41, 43, 55
Able to Teach (AT)	47, 50, 58, 62, 63	39, 44, 52, 60, 64
Temperate (T)	66, 84, 91, 97	67, 70, 72, 75, 79, 80, 82, 86, 88, 92, 94, 95
Prudence (P)	68, 69, 71, 83, 85	73, 76, 77, 78, 81, 87, 89, 90, 93, 96, 98, 99
Able to Manage Family (F)	101, 124	103, 104, 107, 108, 110, 112, 114, 116, 118, 120, 122, 125, 127, 129
Husband of One Wife (HW)	102, 119, 123, 128, 131	100, 105, 106, 109, 111, 113, 115, 117, 121, 126, 130
Gentile/Uncontentious (Gt)	136	134, 135, 139, 142, 145, 150, 151, 156, 157, 159, 161, 163, 165
Not Quick Tempered (QT)	147, 162	132, 137, 140, 143, (table continues)

Construct Validity

161

Scales	True	False
		148, 153, 154, 158, 160, 164
Self-control (SC)	133, 138, 144, 149, 155	141, 146, 152
Not Addicted to Wine (NA)	177, 185	167, 170, 171, 173, 175, 180, 183, 188, 189
Greed (Gd)	174	166, 168, 169, 172, 176, 178, 179, 181, 182, 184, 186, 187
Love of God (LG)	196, 200, 220, 222	191, 193, 197, 202, 207, 211, 212, 215, 221
Not self-willed (SW)	190, 208, 209	194, 199, 204, 205, 217, 218, 219
Hospitality (Hp)	195, 198, 206,	192, 201, 203, 210, 213, 214, 216

Name _____

SPIRITUAL WELL-BEING SCALE

For each of the following statements circle the choice that best indicates the extent of your agreement or disagreement as it describes your personal experience:

SA = Strongly Agree D = Disagree
 MA = Moderately Agree MD = Moderately Disagree
 A = Agree SD = Strongly Disagree

- | | |
|--|-----------------|
| 1. I don't find much satisfaction in private prayer with God. | SA MA A D MD SD |
| 2. I don't know who I am, where I came from, or where I am going. | SA MA A D MD SD |
| 3. I believe that God loves me and cares about me. | SA MA A D MD SD |
| 4. I feel that life is a positive experience. | SA MA A D MD SD |
| 5. I believe that God is impersonal and not interested in my daily situations. | SA MA A D MD SD |
| 6. I feel unsettled about my future. | SA MA A D MD SD |
| 7. I have a personally meaningful relationship with God. | SA MA A D MD SD |
| 8. I feel very fulfilled and satisfied with life. | SA MA A D MD SD |
| 9. I don't get much personal strength and support from my God. | SA MA A D MD SD |
| 10. I feel a sense of well-being about the direction my life is headed in. | SA MA A D MD SD |
| 11. I believe that God is concerned about my problems. | SA MA A D MD SD |
| 12. I don't enjoy much about life. | SA MA A D MD SD |
| 13. I don't have a personally satisfying relationship with God. | SA MA A D MD SD |
| 14. I feel good about my future. | SA MA A D MD SD |
| 15. My relationship with God helps me not to feel lonely. | SA MA A D MD SD |
| 16. I feel that life is full of conflict and unhappiness. | SA MA A D MD SD |
| 17. I feel most fulfilled when I'm in close communion with God. | SA MA A D MD SD |
| 18. Life doesn't have much meaning. | SA MA A D MD SD |
| 19. My relation with God contributes to my sense of well-being. | SA MA A D MD SD |
| 20. I believe there is some real purpose for my life. | SA MA A D MD SD |

Name _____

Code # _____

RELIGIOUS ORIENTATION SCALE

For each of the following statements circle the letter of the choice which best describes your personal experience.

1. What religion offers most is comfort when sorrow and misfortune strike.
 - a. I definitely disagree
 - b. I tend to disagree
 - c. I tend to agree
 - d. I definitely agree
2. I try hard to carry my religion over into all my other dealings in life.
 - a. I definitely disagree
 - b. I tend to disagree
 - c. I tend to agree
 - d. I definitely agree
3. Religion helps to keep my life balanced and steady in exactly the same way as my citizenship, friendships, and other memberships do.
 - a. I definitely agree
 - b. I tend to agree
 - c. I tend to disagree
 - d. I definitely disagree
4. One reason for my being a church member is that such membership helps to establish a person in the community.
 - a. Definitely not true
 - b. Tends not to be true
 - c. Tends to be true
 - d. Definitely true
5. The purpose of prayer is to secure a happy and peaceful life.
 - a. I definitely disagree
 - b. I tend to disagree
 - c. I tend to agree
 - d. I definitely agree
6. It doesn't matter so much what I believe as long as I lead a moral life.
 - a. I definitely disagree
 - b. I tend to disagree
 - c. I tend to agree
 - d. I definitely agree

7. Quite often I have been aware of the presence of God or of the Divine Being.
 - a. Definitely not true
 - b. Tends not to be true
 - c. Tends to be true
 - d. Definitely true
8. My religious beliefs are what really lie behind my whole approach to life.
 - a. This is definitely not so
 - b. Probably not so
 - c. Probably so
 - d. Definitely so
9. The prayers I say when I am alone carry as much meaning and personal emotion as those said by me during services.
 - a. Almost never
 - b. Sometimes
 - c. Usually
 - d. Almost always
10. Although I am a religious person, I refuse to let religious considerations influence my everyday affairs.
 - a. Definitely not true for me
 - b. Tends not to be true
 - c. Tends to be true
 - d. Clearly true in my case
11. The church is most important as a place to formulate good social relationships.
 - a. I definitely disagree
 - b. I tend to disagree
 - c. I tend to agree
 - d. I definitely agree
12. Although I believe in my religion, I feel there are many more important things in life.
 - a. I definitely disagree
 - b. I tend to disagree
 - c. I tend to agree
 - d. I definitely agree
13. If not prevented by unavoidable circumstances, I attend church:
 - a. more than once a week
 - b. about once a week
 - c. two or three times a month
 - d. less than once a month
14. If I were to join a church group, I would prefer to join (1) a Bible study group, or (2) a social fellowship.

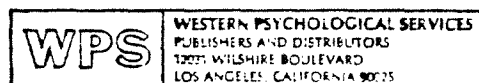
- a. I would prefer to join (1)
 - b. I probably would prefer (1)
 - c. I probably would prefer (2)
 - d. I would prefer to join (2)
15. I pray chiefly because I have been taught to pray.
- a. Definitely true of me
 - b. Tends to be true of me
 - c. Tends not to be true
 - d. Definitely not true of me
16. Religion is especially important to me because it answers many questions about the meaning of life.
- a. Definitely disagree
 - b. Tend to disagree
 - c. Tend to agree
 - d. Definitely agree
17. A primary reason for my interest in religion is that my church is a congenial social activity.
- a. Definitely not true of me
 - b. Tends not to be true
 - c. Tends to be true
 - d. Definitely true of me
18. I read literature about my faith (or church):
- a. Frequently
 - b. Occasionally
 - c. Rarely
 - d. Never
19. Occasionally I find it necessary to compromise my religious beliefs in order to protect my social and economic well-being.
- a. Definitely disagree
 - b. Tend to disagree
 - c. Tend to agree
 - d. Definitely agree
20. It is important to me to spend periods of time in private religious thought and meditation.
- a. Frequently true
 - b. Occasionally true
 - c. Rarely true
 - d. Never true
21. The primary purpose of prayer is to gain relief and protection.
- a. I definitely agree
 - b. I tend to agree
 - c. I tend to disagree
 - d. I definitely disagree

Interpersonal Behavior Survey (IBS)

Administration Booklet

Paul A. Mauger, Ph.D., David R. Adkinson, M.A., Suzanne K. Zoss, Ph.D.,
Gregory Firestone, Ph.D., and J. David Hook, M.A.

Published by



A DIVISION OF MANSON WESTERN CORPORATION

DIRECTIONS: Fill in the information requested on the answer sheet, then read each of the following items carefully and decide how well it describes you. There are NO right or wrong answers. If you feel that the item describes you fairly well or is correct most of the time, fill in the circle marked T on your answer sheet. If you feel that the item description is very much unlike yourself or is wrong most of the time, fill in the circle marked F.

In recording your answers on the answer sheet, be sure that the number of the statement agrees with the number on the answer sheet. Make your marks heavy and black. Erase completely any answer you wish to change. Make only one response to each statement. Do not make any marks on this booklet.

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1 2 3 4 5 6 7 8 9

Printed in U.S.A.

DO NOT MAKE ANY MARKS ON THIS BOOKLET**PART I**

1. I say what I want to say in most situations.
2. When I play in a game, I really don't care whether I win or lose.
3. Much of the time I am too easily influenced by my friends.
4. I rarely lose my temper.
5. Sometimes I decide to finish a task tomorrow, even when I know I should probably do it today.
6. I give up too easily when others say I can't succeed.
7. It is very important to me to be able to speak my mind.
8. It is never all right to harm someone else.
9. I frequently interrupt people who bore me by talking too much.
10. Sometimes getting into trouble is worth it because it upsets my family so much.
11. Sometimes I blame others when things go wrong.
12. There are times when I would enjoy making someone I dislike look foolish in front of others.
13. I usually do not speak until spoken to by others.
14. I try not to give people a hard time.
15. I don't believe I have a right to get back at a member of my family who treats me unfairly.
16. I probably would sneak into a movie theater if I knew I would not be caught.
17. I would speak out in a meeting to oppose those who I feel are wrong.
18. I never deliberately hurt another person's feelings.
19. I get mad easily.
20. If a friend was unable to keep a promise to do something, I would probably be understanding rather than angry.
21. I get embarrassed easily.
22. Sometimes I feel like swearing.
23. I am quick to give my opinions in class discussions.
24. Sometimes I take my anger out on my friends.
25. Because I hide my true feelings from others, most people don't know when they have hurt me.
26. I often avoid members of the opposite sex because I fear doing or saying the wrong thing.
27. Some people think I have a violent temper.
28. I make sure that people know where I stand on an issue.
29. I don't try to get even when another person does something against me.
30. I enjoy making people angry.
31. There are times when I am not completely honest with people about my true feelings.
32. There are times when I would enjoy hurting people I love.
33. I have questioned public speakers on occasion.
34. I often worry that others will not approve of my conduct.
35. I often become angered and upset by members of my family for no good reason.
36. I never make fun of people who do things I feel are stupid.
37. I don't like to hurt other people's feelings, even when I have been hurt.
38. Sometimes I get angry.

PART II

39. I rarely criticize other people.
40. I find it difficult to compliment or praise others.
41. I resent having members of my family give me orders.

GO ON TO THE NEXT PAGE

42. When I am praised for doing something better than others, I feel uncomfortable.
43. I don't worry about what others think of me.
44. I sometimes feel that my opinion is not very important.
45. I tend to help many of my friends make decisions.
46. When I see a person doing a bad job on something, I usually speak right up and let him or her know it.
47. I seldom argue with others.
48. I am not sure that I could be a good leader.
49. I feel that I am good at handling group discussions.
50. I usually tell people off when they disagree with me.
51. I dislike watching violent TV shows.
52. I have at times embarrassed a friend just to get his or her reaction.
53. Sometimes you can't help hurting others to get ahead.
54. At times I have hit my girlfriend (wife) or boyfriend (husband) during an argument.
55. I have made fun of a teacher or boss who I thought was stupid.
56. I enjoy giving orders and being the boss.
57. I don't like to speak to people with authority, such as teachers, police officers, or bosses.
58. When a close and respected relative annoys me, I usually hide my true feelings.
59. I am regarded by others as a good leader.
60. When arguing with my girlfriend (wife) or boyfriend (husband), I never give in until I have won.
61. I would not hit back if a friend hit me first.
62. I find it easy to express my love and affection to others.
63. I would enjoy making a fool of a teacher or boss who had previously cut me down in front of other people.
64. I don't like to win when I have to hurt people in order to do it.
65. I am likely to go along with what others want to do.
66. I don't like to see anyone punished.
67. When a friend does something that hurts me deeply, I would rather get even than let him or her know of my deep hurt.
68. I have seldom taken the lead in organizing projects.
69. I often apologize for myself.
70. A person who says something stupid deserves to be put down.
71. I take care of my own needs and don't worry much about others.
72. I frequently pretend not to notice people I know unless they speak to me first.
73. If after leaving a store I discovered that I had been shortchanged, I would go back and ask for the rest of my change.
74. I need to learn to stop letting people push me around.
75. In most situations I would rather listen than talk.
76. I usually say something to a person who I feel has been unfair.
77. I feel that in life you push or you are shoved.
78. I would have a hard time telling someone that I no longer wish to date him or her.
79. I often allow people to push me around.
80. If I had a brother or sister who did poorly in school, I would make sure that he or she knew that I was smarter.
81. I think that you can get ahead in the world without having to step on others.
82. I seem to lose a lot of arguments.
83. There are times when force is necessary to get things done.
84. If I like a teacher at school or a supervisor at work, I usually tell him or her.

85. I find it difficult to say "no" to a salesperson.
86. When playing a team sport, such as basketball, I feel that it is okay to take out my anger physically on my opponents.
87. I tend to follow the suggestions of others when I am with a group of people.
88. If I were interrupted in the middle of an important conversation, I would ask the person to wait until I had finished.
89. I find it difficult to stand up for my rights.
90. I would not return a defective item for fear the store manager would claim I broke it.
91. I just don't know what to say when someone says something nice to me.
92. I am afraid to refuse to do favors for friends for fear that they will not like me.
93. I would be afraid of being in a fist fight.
94. Rather than ask for a favor, I will do without.
95. I would not question a salesperson about the price of an article, even if it seemed too high.
96. I would state what I think is right, even if someone I respect had just said something different.
97. I enjoy being involved in a good argument.
98. It is not right to hurt others even if they hurt you first.
99. Sometimes I feel embarrassed when I receive praise, even though I have earned it.
100. I often imagine myself beating or killing a person or an animal.
101. I can usually convince others that my ideas are right.
102. I find it hard to express my true feelings when I am fond of a member of the opposite sex.
103. Even if I were very angry with someone, I would not make fun of him or her.
104. I would hesitate to return food in a restaurant, even if it were burnt.
105. Even if someone is unfair, I usually don't say anything to that person.
106. There are times when I would like to pick fist fights.
107. I usually agree readily with the opinions of others.
108. If someone were annoying me during a movie, I would ask that person to stop.
109. Sometimes I make fun of people who look very different from me.
110. If my family is misinformed on a subject, I try to inform them of the facts.
111. I would find it difficult to ask people for money or donations, even for a cause I believe in strongly.
112. If I were unfairly criticized by a friend, I would quickly express my feelings.
113. When someone gives me a present, I become embarrassed and uneasy.
114. I keep quiet when people are unreasonable.
115. I find it difficult to ask a friend for a favor.
116. People often take advantage of me.
117. Sometimes I say nasty things when people don't understand what I am trying to do.
118. I will give in on an issue just to avoid trouble, even though I know I am right.
119. I seldom disagree with others.
120. I dislike reducing my girlfriend (wife) or boyfriend (husband) to tears.
121. I have a hard time saying "no" to friends' requests.
122. Sometimes when I am depressed, I get upset with my friends.
123. Sometimes I lose an argument because I am afraid of hurting the other person's feelings.
124. Generally, I don't disagree with members of my family because I don't want to hurt their feelings.
125. I rarely tease others.
126. I find it hard to ask members of my family to do favors for me.

GO ON TO THE NEXT PAGE

127. I do my best to prevent my friends from taking unfair advantage of me.
128. When I am angry with members of my family, I let them know it.
129. I usually stick up for my opinion in a family argument.
130. I would not ask even a good friend to lend me money.
131. If a friend of mine damaged some of my best records, I would ask him or her to replace them.
132. I try to make sure that people do not take advantage of me.
133. I would remind a friend who forgot to pay back money he or she had borrowed from me.
148. I will try almost anything without worrying about whether I might fail.
149. Part of being a good leader is being strong enough to physically force people to do things when necessary.
150. I am usually happier when I am alone.
151. I usually feel insecure unless I am near someone on whose support I can depend.
152. I get all the sympathy I need.
153. When I cannot find what I am looking for in a store, I will ask the salesperson for help.
154. People often do not understand that I can't do what they expect when I am not feeling well.
155. I almost always let the other person end a conversation.

PART III

134. Rules are seldom unfair.
135. I do not call people names when I get upset with them.
136. People see me as being somewhat shy.
137. I prefer to go along with what a person says rather than have him or her get angry and leave me.
138. Lots of people seem to feel they have a right to tell me what to do.
139. When I am angry with a member of my family, I usually do not show it.
140. I almost always get a job done on time.
141. I get very irritated when people rush me.
142. Rather than hurt another person to get what I want, I will do without.
143. I am an outgoing person.
144. When I am depressed, I want my friends or family to spend lots of time cheering me up.
145. People just don't seem to be understanding when it is necessary for me to delay finishing something.
146. I am afraid others will think I am insincere when I praise another person, although I really mean it.
147. At times I spread gossip to get back at people.
156. While I am angry I often say things to friends that I really do not mean.
157. I am a member of several groups or organizations.
158. I often wish that I were a child once again.
159. People expect me to complete things by myself that I really cannot handle.
160. I rarely give in to people who make unfair requests of me.
161. It is foolish to waste your time trying to help people who are too stupid or weak to do things on their own.
162. I am always cooperative with people even when they are pushy.
163. I am very patient with others.
164. I sometimes have to fight against showing I am shy.
165. I like my friends to show me a great deal of affection.
166. I am seldom stubborn.
167. I have at times hurt someone's feelings without meaning to do so.
168. Sometimes when people push me to hurry, I just take longer to show them I will not be rushed.

GO ON TO THE NEXT PAGE

169. There are times when I really wish my family would leave me alone.
170. The most effective form of punishment is physical punishment.
171. I find it easy to talk to new people I meet.
172. I am frequently afraid that I will lose the support of the people I need.
173. I do not get enough praise from others about how well I have done.
174. It is frequently difficult for me to let others know I am angry.
175. I have a hot temper.
176. Most people will not cheat to get ahead.
177. I get a great deal of enjoyment from helping others.
178. I take longer than most people to warm up to others.
179. What others think about me is very important.
180. Others seldom have to remind me to finish things I have started.
181. It is foolish to go without something just because you would have to ask to get it.
182. I seldom hold grudges.
183. It seems the people I love most are the hardest to get along with.
184. Violence is wrong only if you are the one to strike the first blow.
185. I like to be in social situations in which I can meet new people and make new friends.
186. It is very painful when family members disapprove of me.
187. When asked to explain my actions I sometimes get so angry I just will not say anything.
188. When my friends try to make me do something I do not want to do, I seldom refuse.
189. When I am angry I rarely shout at people.
190. When I get pushed too far, I let my anger show.
191. I never break or throw things when I am angry.
192. I have only a few friends.
193. I like having someone take care of me.
194. I can't help but feel others are luckier than I.
195. If someone asks me to do something I do not want to do, sometimes I say "yes" and then do not do it.
196. I wish people would make more of an effort to treat me fairly.
197. Taking orders from others does not bother me.
198. People who will not take responsibility for themselves should be ignored rather than helped.
199. It is easy for me to think of things to say when in a group of people.
200. I strongly rely upon my friends and family.
201. I generally follow through with things I start.
202. It is easier for me to do without something than to borrow it.
203. I would rather avoid a showdown with people I am close to than risk losing their love and support.
204. People in authority usually know as much as they think they do.
205. It is hard to control my anger when I become upset.
206. I often feel uneasy when I have to socialize with a large group of people.
207. I do most of my decision making with someone else.
208. Other people expect too much of me.
209. I get quiet when I am angry.
210. Few people are too pushy.
211. I try to tell my family how I really feel even though they may think that I am criticizing them.
212. I stick up for others who are treated unfairly.
213. I enjoy going places or doing things to be able to meet new people.
214. I do not like to be by myself for very long.
215. More people ought to recognize my contributions.

GO ON TO THE NEXT PAGE

216. It is more important to speak my mind than to be popular.
217. When I get really mad I sometimes frighten people with what I do.
218. I try to spend as much time as possible with my family.
219. I can usually out-yell others in a hot argument.
220. I avoid attending parties or social gatherings.
221. I often pass up doing something I want to do when others feel that it isn't worth doing.
222. When pushed to do something I don't want to do, I sometimes do it in a way that makes the other person wish he or she had not asked me.
223. I frequently ask people for advice.
224. I hold grudges against certain people who have hurt me.
225. I would not feel helpless if my girlfriend (wife) or boyfriend (husband) stopped caring about me.
226. It is wrong to put your own needs ahead of the needs of others.
227. I would be good at a job that required me to meet people all day long.
228. I have a hard time making up my mind about where to go or what movie to see when my friends have not yet said what they think we should do.
229. I find it easy to forgive others when they have hurt me.
230. I rarely worry that my friends will disapprove of something I have said or done.
231. I have had one or more automobile accidents.
232. Few people try to gain sympathy and help from others by exaggerating their misfortunes.
233. I seldom lose control when I feel angry.
234. Usually, I prefer spending my leisure time alone rather than with other people.
235. I am often afraid that I will say something that will offend others.
236. I often feel picked on.
237. I have a hard time directly expressing my anger.
238. If someone forces me to do something against my will, I will usually find a way to get back at that person later.
239. People think I am stubborn.
240. I sometimes use my physical strength to get people to do what I want.
241. I often dread going into a room by myself when others are already gathered and talking.
242. If it weren't for people who are special to me, I would feel completely lost.
243. At times when my boss or teacher demands I finish something quickly, I take my time to let them know they cannot push me around.
244. I would rather just ignore someone than argue with him or her.
245. It takes a lot to get me angry.
246. I am rarely disturbed when a loved one does not arrive when expected.
247. Sometimes when I lose my temper I get physical with others.
248. I find it very enjoyable to spend an evening at a social gathering with a lot of my friends.
249. Sometimes I am described as being too dependent.
250. People seem to expect me to work hard on things that are boring to me.
251. My first reaction when I am in trouble is to look for help from someone.
252. People often seem to get angry at me for no good reason.
253. I never sulk.
254. When I am angry, other people are sure to know it.
255. I am more of a loner than most people.
256. It is important for me to have friends when I am faced with failure.
257. I tend to be the one in a group who is picked on.

GO ON TO THE NEXT PAGE

- | | |
|--|--|
| 258. When I am angry I get very quiet and will not say anything. | 266. I don't really have fun at large socials or parties. |
| 259. People would be very surprised if I raised my voice in an argument. | 267. I am never happier than when others assure me that they like what I am doing. |
| 260. When I am mistreated I don't let it bother me. | 268. I dislike large social gatherings such as parties, weddings, or family reunions. |
| 261. I participate in a lot of social activities. | 269. There are very few things I would not do if my best friend asked me. |
| 262. I try to follow customs and to avoid doing things that my friends or family may consider unconventional or unusual. | 270. Sometimes I have to put forth a great deal of effort in order to be sociable. |
| 263. Most people in authority try to treat the people under them fairly. | 271. My family always wants to tell me what I should do. |
| 264. It is not wise to disagree with a boss or teacher, even if they are wrong. | 272. At parties or social gatherings I usually sit by myself or talk with just one or two other people rather than join in with the crowd. |
| 265. It bothers me that I am in many ways still dependent on my family. | |

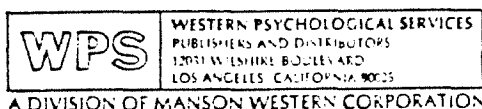
END

Interpersonal Behavior Survey (IBS)

Answer Sheet

Paul A. Mueger, Ph.D., David R. Adkinson, M.A., Suzanne K. Zoss, Ph.D.,
Gregory Firestone, Ph.D., and J. David Hook, M.A.

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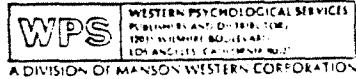
Name: _____ Date: _____
Age: _____ Education: _____ Marital Status: _____ Sex: _____
Race: _____ Occupation: _____

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2	36	70	104	138	172	206	240
3	37	71	105	139	173	207	241
4	38	72	106	140	174	208	242
5	39	73	107	141	175	209	243
6	40	74	108	142	176	210	244
7	41	75	109	143	177	211	245
8	42	76	110	144	178	212	246
9	43	77	111	145	179	213	247
10	44	78	112	146	180	214	248
11	45	79	113	147	181	215	249
12	46	80	114	148	182	216	250
13	47	81	115	149	183	217	251
14	48	82	116	150	184	218	252
15	49	83	117	151	185	219	253
16	50	84	118	152	186	220	254
17	51	85	119	153	187	221	255
18	52	86	120	154	188	222	256
19	53	87	121	155	189	223	257
20	54	88	122	156	190	224	258
21	55	89	123	157	191	225	259
22	56	90	124	158	192	226	260
23	57	91	125	159	193	227	261
24	58	92	126	160	194	228	262
25	59	93	127	161	195	229	263
26	60	94	128	162	196	230	264
27	61	95	129	163	197	231	265
28	62	96	130	164	198	232	266
29	63	97	131	165	199	233	267
30	64	98	132	166	200	234	268
31	65	99	133	167	201	235	269
32	66	100	134	168	202	236	270
33	67	101	135	169	203	237	271
34	68	102	136	170	204	238	272

Interpersonal Behavior Survey (IBS) Profile Form

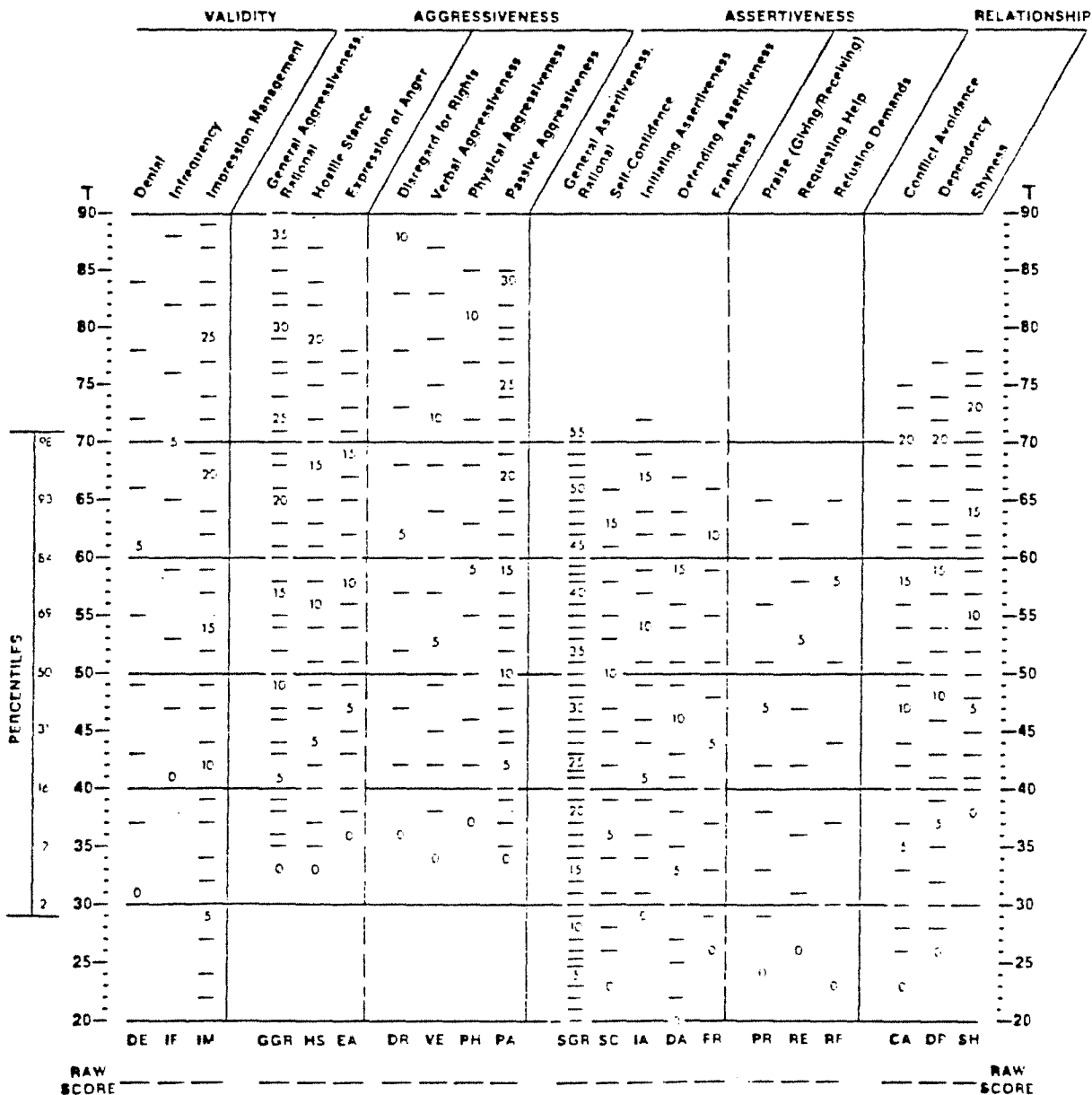
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Gregory Firestone, Ph.D., and J. David Hook, M.A.

Published by



FEMALE

Name: _____ Date: _____
Age: _____ Education: _____ Marital Status: _____ Race: _____



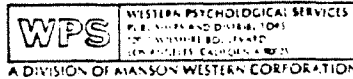
Interpersonal Behavior Survey (IBS)

Profile Form

Paul A. Mauger, Ph.D., David R. Adkinson, M.A., Suzanne K. Zoss, Ph.D.,
Gregory Firestone, Ph.D., and J. David Hook, M.A.

MALE

Published by



Name _____ Date _____
Age _____ Education _____ Marital Status _____ Race _____

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APPENDIX C

RESULTS OF ONE-WAY ANOVA OF SAMPLE GROUP MEAN
SCORES FOR ALL SCALES

Construct Validity

178

One-way ANOVA of 3 Sample Groups for the SLQI

Variables	F Ratio	F Probability
U	0.778	.463
GR	0.585	.559
AR	2.964	.057
R	0.851	.430
O	0.430	.652
Hy	1.734	.183
AT	0.076	.927
T	0.301	.741
P	0.090	.914
F	0.676	.511
HW	0.559	.574
Gt	3.936	.023*
QT	0.553	.577
SC	2.152	.122
NA	0.548	.580
Gd	0.185	.832
LG	1.895	.156
SW	0.986	.377
HP	1.664	.195

Notes. F (2,87). $*=p \leq .05$.

One-way ANOVA of 3 Sample Groups for SWB and ROS

Variables	F Ratio	F Probability
SWB	0.491	.614
RWB	0.138	.872
EWB	1.607	.206
ROS	0.557	.575
E	1.369	.260
I	0.727	.486

Notes. F (2,87). $*=p \leq .05$.

One-way ANOVA for 3 Sample Groups for the IBS

Variables	F Ratio	F Probability
DE	2.335	.010
IF	2.582	.081
IM	1.968	.146
GGR	1.696	.189
HS	2.591	.081
EA	0.183	.833
DR	0.787	.458
VE	2.145	.123
PH	2.265	.110
PA	0.391	.678
SGR	1.550	.218
SC	0.338	.714
IA	2.390	.098
DA	1.545	.219
FR	0.283	.754
PR	0.215	.807
RE	0.351	.705
RF	0.334	.717

(table continues)

Construct Validity

182

CA	1.192	.308
DP	1.069	.350
SH	0.217	.806

Notes. F (2,87). * $p \leq .05$.

Construct Validity

183

One-way ANOVA of the 3 Sample Groups for the MMPI

Variable	F Ratio	F Probability
?	1.175	.314
L	1.215	.302
F	0.162	.850
K	1.027	.362
1	0.027	.973
2	5.748	.005*
3	0.634	.533
4	0.793	.456
5	0.163	.850
6	0.650	.525
7	0.141	.869
8	0.004	.996
9	0.562	.572
0	1.992	.143

Notes. F (2,87). * $p \leq .05$.

APPENDIX D

DATA

	55	56	57	58	59	60	61	62	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54
0011	0070	0140	0210	0280	0350	0420	0490	0560	0630	0700	0770	0840	0910	0980	1050	1120	1190	1260	1330	1400	1470	1540	1610	1680	1750	1820
0012	0071	0141	0211	0281	0351	0421	0491	0561	0631	0701	0771	0841	0911	0981	1051	1121	1191	1261	1331	1401	1471	1541	1611	1681	1751	1821
0013	0072	0142	0212	0282	0352	0422	0492	0562	0632	0702	0772	0842	0912	0982	1052	1122	1192	1262	1332	1402	1472	1542	1612	1682	1752	1822
0014	0073	0143	0213	0283	0353	0423	0493	0563	0633	0703	0773	0843	0913	0983	1053	1123	1193	1263	1333	1403	1473	1543	1613	1683	1753	1823
0015	0074	0144	0214	0284	0354	0424	0494	0564	0634	0704	0774	0844	0914	0984	1054	1124	1194	1264	1334	1404	1474	1544	1614	1684	1754	1824
0016	0075	0145	0215	0285	0355	0425	0495	0565	0635	0705	0775	0845	0915	0985	1055	1125	1195	1265	1335	1405	1475	1545	1615	1685	1755	1825
0017	0076	0146	0216	0286	0356	0426	0496	0566	0636	0706	0776	0846	0916	0986	1056	1126	1196	1266	1336	1406	1476	1546	1616	1686	1756	1826
0018	0077	0147	0217	0287	0357	0427	0497	0567	0637	0707	0777	0847	0917	0987	1057	1127	1197	1267	1337	1407	1477	1547	1617	1687	1757	1827
0019	0078	0148	0218	0288	0358	0428	0498	0568	0638	0708	0778	0848	0918	0988	1058	1128	1198	1268	1338	1408	1478	1548	1618	1688	1758	1828
0020	0079	0149	0219	0289	0359	0429	0499	0569	0639	0709	0779	0849	0919	0989	1059	1129	1199	1269	1339	1409	1479	1549	1619	1689	1759	1829
0021	0080	0150	0220	0290	0360	0430	0500	0570	0640	0710	0780	0850	0920	0990	1060	1130	1200	1270	1340	1410	1480	1550	1620	1690	1760	1830
0022	0081	0151	0221	0291	0361	0431	0501	0571	0641	0711	0781	0851	0921	0991	1061	1131	1201	1271	1341	1411	1481	1551	1621	1691	1761	1831
0023	0082	0152	0222	0292	0362	0432	0502	0572	0642	0712	0782	0852	0922	0992	1062	1132	1202	1272	1342	1412	1482	1552	1622	1692	1762	1832
0024	0083	0153	0223	0293	0363	0433	0503	0573	0643	0713	0783	0853	0923	0993	1063	1133	1203	1273	1343	1413	1483	1553	1623	1693	1763	1833
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0027	0086	0156	0226	0296	0366	0436	0506	0576	0646	0716	0786	0856	0926	0996	1066	1136	1206	1276	1346	1416	1486	1556	1626	1696	1766	1836
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0029	0088	0158	0228	0298	0368	0438	0508	0578	0648	0718	0788	0858	0928	0998	1068	1138	1208	1278	1348	1418	1488	1558	1628	1698	1768	1838
0030	0089	0159	0229	0299	0369	0439	0509	0579	0649	0719	0789	0859	0929	0999	1069	1139	1209	1279	1349	1419	1489	1559	1629	1699	1769	1839
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0036	0095	0165	0235	0305	0375	0445	0515	0585	0655	0725	0795	0865	0935	1005	1075	1145	1215	1285	1355	1425	1495	1565	1635	1705	1775	1845
0037	0096	0166	0236	0306	0376	0446	0516	0586	0656	0726	0796	0866	0936	1006	1076	1146	1216	1286	1356	1426	1496	1566	1636	1706	1776	1846
0038	0097	0167	0237	0307	0377	0447	0517	0587	0657	0727	0797	0867	0937	1007	1077	1147	1217	1287	1357	1427	1497	1567	1637	1707	1777	1847
0039	0098	0168	0238	0308	0378	0448	0518	0588	0658	0728	0798	0868	0938	1008	1078	1148	1218	1288	1358	1428	1498	1568	1638	1708	1778	1848
0040	0099	0169	0239	0309	0379	0449	0519	0589	0659	0729	0799	0869	0939	1009	1079	1149	1219	1289	1359	1429	1499	1569	1639	1709	1779	1849
0041	0100	0170	0240	0310	0380	0450	0520	0590	0660	0730	0800	0870	0940	1010	1080	1150	1220	1290	1360	1430	1500	1570	1640	1710	1780	1850
0042	0101	0171	0241	0311	0381	0451	0521	0591	0661	0731	0801	0871	0941	1011	1081	1151	1221	1291	1361	1431	1501	1571	1641	1711	1781	1851
0043	0102	0172	0242	0312	0382	0452	0522	0592	0662	0732	0802	0872	0942	1012	1082	1152	1222	1292	1362	1432	1502	1572	1642	1712	1782	1852
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0045	0104	0174	0244	0314	0384	0454	0524	0594	0664	0734	0804	0874	0944	1014	1084	1154	1224	1294	1364	1434	1504	1574	1644	1714	1784	1854
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0050	0109	0179	0249	0319	0389	0459	0529	0599	0669	0739	0809	0879	0949	1019	1089	1159	1229	1299	1369	1439	1509	1579	1649	1719	1789	1859
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0054	0113	0183	0253	0323	0393	0463	0533	0603	0673	0743	0813	0883	0953	1023	1093	1163	1233	1303	1373	1443	1513	1583	1653	1723	1793	1863
0055	0114	0184	0254	0324	0394	0464	0534	0604	0674	0744	0814	0884	0954	1024	1094	1164	1234	1304	1374	1444	1514	1584	1654	1724	1794	1864
0056	0115	0185	0255	0325	0395	0465	0535	0605	0675	0745	0815	0885	0955	1025	1095	1165	1235	1305	1375	1445	1515	1585	1655	1725	1795	1865
0057	0116	0186	0256	0326	0396	0466	0536	0606	0676	0746	0816	0886	0956	1026	1096	1166	1236	1306	1376	1446	1516	1586	1656	1726	1796	1866
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0059	0118	0188	0258	0328	0398	0468	0538	0608	0678	0748	0818	0888	0958	1028	1098	1168	1238	1308	1378	1448	1518	1588	1658	1728	1798	1868
0060	0119	0189	0259	0329	0399	0469	0539	0609	0679																	

Estimated by

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1

APPENDIX E

DEFINITION OF TERMS

Definitions of Terms

1. Evangelical--refers to that element of the Christian faith which holds at minimum to the doctrines of:
(1) the Deity of Jesus Christ (2) substitutionary atonement (3) virgin birth (4) salvation by grace through faith (5) the authority of Scripture. Due to the nature of the present study, the final component (Biblical authority) is particularly germane to the present study.
2. Extrinsic Religiosity--an attitude that views God or religion as a means to one's own end. Individuals with this orientation tend to use religion to provide security or social status. Primary needs govern the role of religion (Allport and Ross, 1967). Extrinsic Religiosity will be measured by the E subscale of the ROS.
3. Intrinsic Religiosity--an attitude which places God or religion as a primary motivation. Other needs are regarded as less significant and are, if possible, brought into harmony with religious beliefs and prescriptions (Allport and Ross, 1967). For the purposes of this study, Intrinsic Religiosity will be measured by the I subscale of the ROS.
4. Existential Well-Being--an attitude involving a sense

of meaning and purpose in life apart from any particular religious element (no reference to God).

Existential Well-Being is measured by the EWB subscale of the SWB.

5. Religious Well-Being--an attitude in life which places priority on one's relationship with God and His active influence upon one's life. Religious Well-Being is measured by the RWB subscale of the SWB.
6. Spiritual Well-Being--an attitude which views life by one's relationship with God and self. Spiritual Well-Being is measured by combining the scores of the EWB and RWB subscales of the SWB.

APPENDIX F

VITA

Vita

Name: Thomas G. Parker

Education: Baylor University, Waco, TX.
B.A. (1977)

Dallas Theological Seminary, Dallas, TX.
Th.M. (1981)

Western Conservative Baptist Seminary,
Portland, OR.

M.A. (1982, Clinical Psychology)

Ph.D. (anticipated graduation,
August 1984, clinical psychology)

Professional
Experience:

Practicum: Intensive Family Services
Team, Children's Services Division,
Albany, OR (1/82 to 8/82).

Practicum: Western Psychological and
Counseling Services Center, Portland, OR
(9/82 to 12/82).

Practicum: Intensive Family Services
Team, Children's Services Division,
Portland, OR (1/83 to 6/83).

Predoctoral Internship: Minirty-Meier
Clinic & Memorial Hospital of Garland,
TX; Counseling Services, Dallas
Theological Seminary, Dallas, TX (8/83 to
7/84).

Postdoctoral Internship: Minirth-Meier
Clinic & Garland Memorial Hospital of
Garland, TX (8/84 to 7/85).