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# The Effect of Deliberate Faking Good and Faking Bad on Spiritual Well-Being Scores in a Religiously Inactive Sample

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by

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## Abstract

The purpose of this study was to examine the effect of faking good and faking bad on Spiritual Well-Being Scale scores in a religiously inactive sample. The study replicated a previous work investigating the effects of faking good and faking bad on SWB scores in a Christian sample. It is a true experiment with three levels of the independent variable: Fake Good, Honest, and Fake Bad instructions. The sample consisted of 151 members of two Oregon Air National Guard units stationed at Portland, Oregon.

A demographic questionnaire was given along with the SWB scale. An analysis of variance was performed for each of the dependent measures (SWB and its two subscales, RWB and EWB). ANOVA's and post hoc testing revealed significant differences between all three

treatment groups, and for seven individual SWB items. Results suggest the SWB scale is vulnerable to faking by religiously inactive persons, and that ceiling effects are not an issue for this sample.

SWB and both its subscales RWB and EWB, were positively correlated with years professing to be a Christian, and comfort being with people. SWB and its subscale RWB were positively correlated with frequency of church attendance, frequency of personal devotions, Christian profession, importance of religion, and dealing easily with people. SWB and its subscale EWB were negatively correlated with preference to be alone. The subscale EWB was positively correlated with satisfaction with current life experience. Though utility of the scale is presently limited, suggestions for use with new Christians are posited. A recommendation for further development of the present SWB form to include questions to detect faking is discussed.

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# CHAPTER 1

## INTRODUCTION

"Man is practiced in disguise; He cheats the most discerning eyes" - John Gay

Though American psychologists were leading researchers in the field of Psychology of Religion between 1880 and 1925, antipathy followed through the 30's, 40's, and 50's (Beit-Hallahmi, 1974). Renewed interest in the psychology of religion was sparked by the Quality of Life movement of the 1960's, leading to the 1980's current marked interest in integrative aspects of psychology and theology. One of those current aspects is the measurement of subjective well-being.

Ellison (1983) suggests the period of the Quality of Life movement was a turning point in the attempts to measure subjective well-being. While the Quality of Life movement explored general well-being, it largely ignored the spiritual dimension, specifically religious well-being. In an attempt to measure the spiritual dimension of human welfare, Ellison and Paloutzian (1978)

developed the Spiritual Well-Being Scale (SWB). The scale is growing in popularity within the religious domain and has been subjected to numerous research studies. It is hoped the scale will prove useful as a screening instrument for Pulpit Committees in evaluating potential pastors, and for religious school search committees in screening potential employees.

The SWB scale is a self-report inventory. One potential problem with self-report inventories, and thus the SWB, is social desirability and/or faking. Because...Quoting Paulhus (1986), "certainly we would be skeptical of self-reports of intelligence, perhaps because of its universal desirability" (p. 143), we would also be skeptical of self-reports of spiritual well-being, because of its presumed desirability among Christians.

Of the 40 plus SWB studies executed at Western Conservative Baptist Seminary, 11 have examined some aspect of social desirability elicited from participants given the SWB. Though many have reported a significant correlation between social desirability and SWB scores utilizing such instruments as the L and K scales on the Minnesota Multiphasic Personality Inventory (MMPI), only one has sought to examine the scale in terms of intentional faking good or bad. That study was accomplished on a Christian population (Moody, 1988). The purpose of this study is to replicate the Moody study on a religiously inactive population. It is hypothesized that a religiously inactive person can fake good on the SWB scale.

If the hypothesis is shown to be true, further development of the scale to include faking detector questions may be warranted.

This chapter will present a historical overview of the psychology of religion, discuss the concept of spiritual well-being, and provide a background of the SWB scale to include its relationship to the spiritual well-being concept and utility as an operation to measure that concept. Research accomplished by the authors of the SWB scale and an overview of the studies done at Western Conservative Baptist Seminary will be presented. A section will be devoted to examining the 11 studies associating social desirability, with emphasis on the Moody (1988) study. Following will be a section discussing problems of defining social desirability and faking, and the literature which is limited and fails to clearly distinguishing between the two. A section presenting advantages and disadvantages of self-report instruments will follow; the chapter concludes with rationale and purpose for the study along with specific hypotheses to be tested.

## Brief History of Psychology of Religion

The psychology of religion is that subdomain within psychology examining the psychological dimension of religious behavior. William James defined religion as "whatever men do in relation to

that which they consider to be divine" (cited in Malony, 1985, p. 938). Religious behavior includes such areas as conversion, prayer, and worship. Activities may be both corporate and/or solitary, for example, congregational singing and personal devotions respectively. The psychology of religion includes efforts to understand, predict, and control the emotions, cognitions, and behavior of persons when they are acting religiously.

Prior to 1895 the psychology of religion was fragmented; however, the Clark School of Psychology of Religion (1890-1925) was influential in development of this subdomain. G. Stanley Hall, one of the first presidents of the American Psychological Association (APA), was the chairman of the Clark program, and encouraged empirical study approaches to religion. Hall wrote Varieties of Religious Experience in 1902, focusing on individual experiences. He viewed religion as a more or less solitary experience, was not particularly concerned with conversion, and was not interested in corporate activities.

Leuba and Starbuck were influenced by Hall and contributed to the budding field. Leuba studied religious conversion from a reductionistic approach, tending to discount any religious significance to the phenomenon, and published one of the first empirical studies of religious conversion, A Study in the Psychology of Religious Phenomena (Leuba, 1896). Starbuck

discounted anything to be uniquely religious and published Psychology of Religion (Starbuck, 1899).

In 1904 the Psychological Bulletin began carrying annual reviews of the literature in the field with many psychology of religion articles published between 1910 and 1925, the height of the field's popularity. The American Journal of Psychology also carried many psychology of religion articles. Hall himself initiated the American Journal of Religious Psychology and Education (later changed to the Journal of Religious Psychology). This publication was discontinued in 1915 (Flakoll, 1977).

Malony (1985) suggests six factors in the decline of interest in the psychology of religion from 1925 until the 1960's:

> 1) an alliance with theology and philosophy and with the goals of religious institutions that was too close; 2) a lack of an integrating theory as a base for gathering data; 3) the abuse of utilizing questionnaires for collection of data; 4) a rise of a behavioristic, positivistic worldview encouraging omittance of subjective introspection; 5) the emphasis on psychoanalytic interpretations which eventually superseded empirical approaches; 6) the lack of an impact on general psychology. Though the young field had identified itself as empirical and positivistic, subsequent advances in social psychology along with increased focus on such areas as I.Q. testing, precluded interest in religious aspects of psychology.

> Many of the issues involving the psychology of religion were absorbed into the religious education and pastoral counseling movements, which were developing in the late 1920's. (p. 939)

Gorsuch (1988) adds clarification to Malony's first point that mainstream psychology was fighting for recognition as a legitimate science and sought to distance itself from philosophical roots. The psychology of religion was ostracized from mainline psychology because it too closely resembled philosophy and seemed too far from the empirical sciences. Gorsuch suggests also that religiously oriented people may have tended to enter theological fields rather than mainline psychological fields and were thus underrepresented and limited in influence. Psychologists who were not personally religious had no interest in examining why others "embraced" religion, possibly due to an aspect of their own non-involvement becoming threatened by their discoveries. At any rate, by the 1930's the psychology of religion had transformed from a highly respected topic to become a "taboo" area of study for mainstream psychology (Spilka, Hood, & Gorsuch, 1985).

The psychology of religion experienced a renewed interest in the 1950's including movement into the mainstream of psychology. There were 130 empirical studies published during the decade, only 2% of which manipulated an independent variable in a laboratory experimental method (Klausner, 1964). Malony (1985) suggests two factors influencing this renewed interest: (a) religious revival

in the main culture within the United States, and (b) a developing concern for the relationship between religion and mental health. This renewed interest generated many studies in the psychology of religion, though nearly all done in the 1950's and '60's were correlational, anecdotal, or descriptive, with only three experimental design studies being done in the 1960's (Warren, 1977).

In the 1970's the psychology of religion moved further into the mainstream of psychology when the APA formed its Division 36, Psychologists Interested in Religious Issues (Spilka, Hood, & Gorsuch, 1985). "The 1988 APA Register lists 57 Fellows, 1159 Members, and 104 Associate Members, for a total of 1320 for Division 36" (Moody, 1988, p. 6).

The 1970's also included progression in empirical studies in the psychology of religion domain through the development of reliable and valid instruments to measure change among dependent variables. One of those variables is religious well-being. One instrument designed to measure that variable was presented in 1979 by Paloutzian and Ellison: the Spiritual Well-Being Scale.

## Concept of Spiritual Well-Being

In a 1983 Gallup Poll survey, 57% of the adults reported they were more interested in religious and spiritual issues than they

had been five years previously; 56% considered themselves more reliant on God; and 44% claimed their spiritual well-being had improved (Trends, 1983). Other research suggests over 2 billion people worldwide have religious commitments playing an important role in how they experience life (Zimbardo, 1979).

Ellison (1983) dates measurement of subjective well-being of Americans back to a 1960 national survey querying happiness, worries, and experiences conducted by Gurin, Veroff, and Feld (1960). Ellison reports the attempts to measure the subjective well-being of Americans led to the conclusion that economic indicators alone were insufficient to understand the quality of American life. This discovery, coupled with the school of behaviorism's increased willingness to study inner components of humans rather than focusing on external components only, led to what Ellison termed the Quality of Life movement. The Quality of Life movement "regards non-economic subjective measures of well-being as valid and essential if the true welfare of the people is to be known" (p. 330).

Although the Quality of Life movement yielded a more comprehensive approach to the study of subjective well-being, Ellison (1983) reports that psychologists concerned with the study of subjective well-being had largely neglected to research the spiritual dimension of human welfare. An example is Campbell (1981), who suggested well-being depended on three basic needs:

The need for having, the need for relating, and the need for being. Campbell arrived at this conclusion even after the 1980 Gallup Poll reported 86% of Americans stated they believed their religious faith was very important. His own research (Campbell, Converse, & Rodgers, 1976) indicated 25% of the American population believed that their life quality was contingent upon their religious faith. McNamara and St. George (1979) re-examined the Campbell, Converse, and Rodgers (1976) data and found that satisfaction with religious faith ranks highly as an accurate predictor of well-being. "While Campbell's research and multiple need conception of life quality are helpful, he and his colleagues ignore a fourth set of needs which might be termed the need for transcendence" (Ellison & Economos, 1981, p. 3). The need for transcendence "refers to the sense of well-being that we experience when we find purposes to commit ourselves to which involve ultimate meanings for life" (Ellison, 1983, p. 330). Ellison termed this sense of well-being "Spiritual Well-being".

In order to scientifically study spiritual well-being, "spiritual" and "well-being" need to be defined as clearly as possible. Ellison states, "It is probably because such terms as 'spiritual' and 'well-being' appear to have subjective meanings which are impossible to operationalize that behavioral scientists have avoided the study of spiritual health and disease" (Ellison, 1983, p. 331). A conceptual rather than operational definition of

Spiritual Well-being is "the affirmation of life in a relationship with God, self, community and environment that nurtures and celebrates wholeness" (National Interfaith Coalition on Aging, 1975, p. 1). This definition suggests there are two components to spiritual well-being, one is a religious component and the other is a social-psychological component (Ellison, 1983). Though difficult, Ellison suggests that we should still "...be able to systematically and scientifically develop indicators of this hidden dimension" of spiritual well-being (Ellison, 1983, p. 331).

Since the early 1970's, Moberg has been developing theoretical and empirical investigation with regard to spiritual well-being. He has "been instrumental in focusing the attention of a growing number of sociologists and psychologists on the need to scientifically investigate this vitally important human dimension" (Ellison, 1983, p. 331).

Spiritual well-being has been conceptualized as two-faceted, with a vertical and a horizontal component (Moberg & Brusek, 1978). Ellison states that the vertical dimension refers to a sense of well-being towards God while the horizontal refers to one's sense of life purpose and life satisfaction apart from anything specifically religious (Ellison, 1983).

Attempting to clarify the existing concept of spiritual well-being, Ellison posits three clarifying assumptions. First, he suggests that spiritual well-being may not be the same thing as

spiritual health. Instead it is the expression of health "much like the color of one's complexion and pulse rate are expressions of good health" (Ellison, 1983, p. 332). Secondly, Ellison (1983) proposes that spiritual well-being does not appear to be the same thing as spiritual maturity. This means one might be immature spiritually and yet subjectively experience both the vertical and horizontal dimensions as high in well-being, or vice versa. Third, and perhaps most importantly, Ellison (1983) suggests that spiritual well-being is a continuous rather than dichotomous variable. The issue is not whether or not one has it, but rather how much one has and how it can be increased.

Paloutzian and Ellison sought to construct a general measure of spiritual well-being that would not be confounded by "...specific theological issues or a priori standards of well-being which would vary from one religious belief system or denomination to another" (Ellison, 1983, p. 332). What resulted was a scale designed to measure the aforementioned vertical and horizontal dimensions, within a broad monotheistic context, the Spiritual Well-Being Scale. It seems appropriate to now move on to a discussion of dynamics involved in religious and existential well-being.

## Christian Perspectives on Spiritual Well-Being

Ellison (1982) suggests seven dynamics of the Christian faith which promote religious and existential well-being. He proposes they produce spiritual well-being and also provide an integrative impact which draws the spirit and psyche together, producing a healthy unified personality. Presumably a person scoring high on the SWB scale will possess these seven dynamics. It stands to reason then, that a person possessing these seven dynamics would presumably score well on the SWB scale. The seven dynamics are: conversion, communion, confession, compatibility, celebration, calling, and community. He suggests that each has a matching secular expression.

1. Conversion includes such theological concepts as redemption, reconciliation, atonement, and salvation as parts of its full meaning. It means to turn around and go a new direction. For a Christian this is turning from sin and self-centeredness "through the Spirit-activated dual dynamic of repentance and faith" (Ellison, 1982, p. 17) to become new creatures. It brings cleansing, change, power, hope, forgiveness, and acceptance. Through conversion we are given power to chose and grow toward both holiness and the health of an integrated personality. This integrated personality results from the internal activity of God's

Holy Spirit and one's obedience to God's principles for wholeness. Ellison does not take issue with whether conversion is sudden or gradual, rather he states the result, regardless of one's time-frame perspective, is an unleashed life.

2. Communion is sharing with God one's deepest thoughts and emotions at a personal level without fear of rejection. It is possible upon commitment to Jesus as Savior because one is adopted into His family (Romans 8:15). It involves intimacy with and obedience to God's Word. In the communion relationship one is able to "rise above a physically-based world and find 'transcendence' that fills our immediate world with meaning and satisfaction" (Ellison, 1982, p. 19). The result of communion is a sense of protection at the deepest levels of one's being, "a sense of spiritual well-being."

3. Confession is that dynamic which, even though one is finite and still prone to sin, allows one to continue in a communal fellowship with God. David, in Psalms 38, provides a picture of the effects of sin on one's emotional, physical, social, and spiritual health. In Psalms 32 he reveals the only way out of "such existential despair." Because conversion does not rid man from the experience of sin and its family of negative consequences, confession enables one to:

> experience the healing of our spirits and psyches as forgiveness acts like a balm in our inner life, we are

relieved of the self-judgement and self-alienation which violations of our internalized standards normally brings, and we experience a deep sense of gratitude. (Ellison, 1982, p. 21)

4. Compatibility is an aligning of life experiences with one's ideal self, conscience, values, and spiritual life. "As we live consistently with our inner commitments we are able to be self-affirming and to also feel a sense of internal integration or wholeness which promotes spiritual wellness" (Ellison, 1982, p. 21). This dynamic of compatibility reminds one that God has established principles for healthy emotional, physical, social, and spiritual living. Living according to these principles results in experiencing spiritual well-being while wandering from these principles yields a less well-off life. The result of compatibility is satisfaction and life.

5. Celebration is a joining together of mind and emotion in an ever-deepening joy based upon a growing intimacy with and knowledge of Christ. Because of this relationship one is able to celebrate wholistically (united mind and emotion) and wholeheartedly without restricting the celebrating to Sunday.

6. Calling has to do with purpose and meaning. Initially the calling is general, calling for one to live life "in concert" with the general principles of Scripture. Involved is gratitude (Col. 3:23) and a transcendent motivation to reach on toward the goal,

for the prize, of the upward calling of God in Christ Jesus (Phi. 3:14). Beyond the general calling is a personal calling for use of gifts and ministries as outlined in Romans 12 and I Corinthians 12. "Adhering to our calling allows us to maintain an inner sense of peace and well-being in the face of the blockages which we face in working our calling out" (Ellison, 1982, p. 24).

7. Community is intended to be a place of caring, encouragement, affirmation, forgiveness, belonging, spiritual instruction, and love. Spiritual well-being is enhanced by a properly functioning "Koinonia", which is an assembling together for holiness and healthiness. Community involves an encouragement of balance between reproof for correction toward maturity and Godliness, and rigidity which depersonalizes the spiritual strengthening ministry of the Koinonia. "In a properly functioning Koinonia community we are ministered to and lifted up. We are also ministers who move beyond self-focus and move toward God when we reach out and incarnate His love to others" (Ellison, 1982, p. 25).

The aforementioned concept of spiritual well-being, coupled with these seven dynamics of the Christian faith, suggest a religiously inactive person would not possess all seven dynamics, and thus, if answering honestly, would not score well on the SWB scale. Prior to discussing the issue of honest and dishonest responding, it is important to lay a foundation of research already completed regarding spiritual well-being.

## Research on Spiritual Well-Being

In 1978 Ellison and Paloutzian began developing an instrument to systematically measure spiritual well-being which was based upon Moberg's concepts and designed for compatibility with the quality of life movement research. Following initial testing and revision, Paloutzian and Ellison presented the Spiritual Well-Being Scale (SWB) at the Annual APA meeting (Paloutzian & Ellison, 1979a).

The SWB scale consists of 20 items responded to on a six-point scale ranging from Strongly Agree to Strongly Disagree with no neutral point. Ten items measure the vertical dimension labeled the Religious Well-Being Scale (RWB). The remaining ten items measure the horizontal dimension labeled the Existential Well-Being Scale (EWB). The primary distinction between the two subconstructs is the presence of reference to God in the RWB items, while the EWB contains no references to God. The SWB scale yields three scores: A score for religious well-being (RWB); a score for existential well-being (EWB); and a total SWB score, consisting of the sum of the RWB and EWB scores.

Factor analysis revealed two factors with an eigenvalue greater than 1.0. All of the items with reference to God loaded on the RWB factor. Several of the remaining items without reference to God loaded on the second factor (Ellison, 1983).

Reliability has been demonstrated by test-retest coefficients at .93 for SWB, .96 for RWB, and .86 for EWB. Coefficient alphas, an index of internal consistency, were reported at .89 for SWB, .87 for RWB, and .78 for EWB (Paloutzian & Ellison, 1979a, p. 13-14).

## Research Using the SWB scale by Ellison, Paloutzian, and Others

In researching a wide range of subjects, Paloutzian and Ellison have reported notable positive and negative correlations (Ellison, 1982).

Spiritual Well-being has been found to be positively related to self-esteem (Campise, Ellison, & Kinsman, 1979; Ellison & Economos, 1981; Paloutzian & Ellison, 1979c). Ellison (1983) states,

> Positive relationships have also been found with such developmental background influences as how positively a person saw his relationships with his parents while growing up, the feeling of family togetherness during childhood years, and one's perceived level of social competence. In each of these cases, while overall SWB was significant, the amount of relationship with the subscales varied. (p. 335)

Ellison and Economos (1981) reported that SWB was positively correlated with doctrinal beliefs, worship orientations, and devotional practices which encourage a sense of acceptance by and

intimate, positive communion with God and fellow Christians. SWB was also positively correlated to the grounding of one's own positive evaluation of self in light of God's acceptance, and to the sense that God's evaluation was more important than that of other people.

In addition they found church attendance and time spent in personal devotions was significantly related to SWB. They discovered the average number of times one had devotions was not positively correlated with SWB.

Spiritual-Well-being correlates significantly with marital adjustment (Roth, 1988).

Negative correlations have been reported between SWB and espousing individualism, success and personal freedom as values (Campise, Ellison, & Kinsman, 1979; Ellison & Cole, 1982). Additionally Paloutzian and Ellison (1979b) report that lower spiritual well-being is associated with large city living environment.

Several studies have indicated that persons who are "born again" (acceptance of Jesus Christ as personal Savior and Lord, and attempt to adhere to the moral and ethical teachings of Jesus Christ) have more spiritual, existential, and religious well-being than "ethical" Christians (those adhering to the moral

and ethical teachings of Jesus Christ) or non-Christians (Bufford, 1984; Campise, Ellison, & Kinsman, 1979; Ellison & Cole, 1982; Ellison & Economos, 1981; Paloutzian & Ellison, 1979b).

In another study a small negative relationship between perfectionism and SWB was found (Ellison, Rashid, Patla, Calica, & Haberman, 1984). They also reported a positive relationship between SWB and spiritual maturity, self-esteem, doctrinal emphases, and belief that God loves, values and accepts one; that one is important to God.

Other notable negative correlations are: SWB, EWB, and RWB negatively correlated with loneliness as measured by the UCLA Loneliness Scale (Ellison & Cole, 1982; Ellison & Paloutzian, 1978; Paloutzian & Ellison, 1979a, 1979c; Russell, Peplau, & Ferguson, 1978). The Russell, Peplau, and Ferguson (1978) study also reported EWB negatively correlated with a sense of rejection. Research by Fehring, Brennan, and Keller (1982) reported depression and SWB to be negatively correlated.

## Research at Western Conservative Baptist Seminary

More than 40 studies investigating spiritual well-being have been accomplished at Western Conservative Baptist Seminary (WCBS). Primarily under the leadership of Dr. Rodger Bufford along with other faculty, interest has been heightened in studying spiritual

well-being. A brief review of these studies is been presented below in grouped form according to topic. Topics included are mental health; physical health; psychopathology; religiousvariables and religious groups; marriage, family, and gender issues; SWB test structure. Because of this study's special focus on social desirability and "faking", material regarding social desirability and faking will be presented in a separate section similar to Moody's (1988) presentation. For the sake of continuity between this study and the Moody (1988) study, the groupings are the same and many studies are chronologically reported; however, there exists some overlap between topic and chronology.

## Mental Health and SWB

Three studies specifically related to mental health have been accomplished at WCBS. Two research self-concept and self-esteem, while the third investigates psychological well-being. Others have examined psychological well-being, aggressiveness, assertiveness, self-confidence, denial, and hope.

The relationship between self-concept and spirituality was investigated among adult male Master of Divinity students at WCBS. A significant positive relationship was reported between SWB, EWB, RWB, and self concept as measured by the Tennessee Self Concept Scale (TSCS) (Powers, 1985). The conclusion of the study was that, for that particular sample, spiritual well-being is positively

related to self-concept. A positive relationship between self-esteem and EWB items was also reported by Marto (1983), in fathers of a Catholic parochial high school population. An investigation of the relationship between adults' psychological well-being and aspects of their religiosity was conducted by Temple (1986). The SWB and both subscales (EWB, and RWB) were positively correlated with Psychological General Well-being Index (PGWB) scores. His sample included adult volunteers from two Portland, Oregon churches and three different economic areas.

Campbell (1983) reported positive correlations between spiritual well-being and measures of assertiveness, and a negative correlation between SWB and depression, utilizing the Beck Depression Inventory in a sample of hemodialysis patients.

Campbell, Mullins, and Colwell (1984) utilizing Campbell's (1983) data, investigated the correlation between the SWB and Interpersonal Behavior Survey (IBS). Results indicated SWB was positively correlated with assertiveness, denial, and negatively correlated with aggressiveness, conflict avoidance, and dependency.

Mullins (1986) found SWB had a positive relationship with IBS scales of assertiveness, self-confidence, praise, requesting help and impression management in a comprehensive study involving chronic pain patients. The SWB scale was negatively correlated with IBS scales of aggressiveness.

Bufford and Parker (1985) conducted a validity study of the SWB scale utilizing the SWB scale and IBS. They reported the SWB scale and its two subscales (EWB and RWB) were negatively correlated with all seven aggressiveness scales, Dependency and Shyness on the IBS. They found positive relationships between the SWB scale and its two subscales and five of the eight assertiveness scales on the IBS. This suggests that SWB is associated with low aggressiveness and high assertiveness, as measured by the IBS, on a first year evangelical seminary population. See Appendix D for a summary table of intercorrelations from the Bufford and Parker (1985) study.

An examination of the relationship of high blood pressure to SWB and interpersonal behavior by Hawkins (1986) reported SWB to be negatively related to aggressiveness and conflict avoidance, and positively related to assertiveness and denial as measured by the IBS.

Palmer (1985) looked at hope's relationship to behavior through measurements of hope, locus of control, and SWB, in a sample from two smoking cessation classes. He reported a positive relationship between SWB and scores on the Hope Index Scale; however, SWB, RWB, and EWB were not significantly related to treatment outcome (graduation from the smoke-free program).

Mitchell (1984) examined SWB and mood-state during pregnancy and found a negative relationship between SWB and Profile of Mood (POM) in mothers carrying pregnancy to term but no relationship between SWB and POM in abortion mothers. The sample involved volunteers from a women's clinic and a home for unwed mothers. There were some notable demographic differences between the groups which likely affect the results, such as many of the abortion group were from non-caucasian backgrounds, were less likely to be married or to have planned the pregnancy, and described themselves as non-Christians.

## Physical Health, Age, and SWB

Several studies touch on physical health and spiritual well-being. Also included in here will be studies reporting correlations for age and locus of control.

Bufford (1987, June) reported some support for the view that physical health and SWB are positively correlated in a generally healthy college sample.

Campbell (1983), investigating patients with renal failure who were undergoing hemodialysis, reported a positive relationship between SWB scores and patient adjustment and acceptance of the disability, as measured by the Beck Depression Inventory. The objective of Campbell's study was to assess predictive instruments to measure coping with hemodialysis. The two strongest

correlations with positive coping to hemodialysis were the SWB scale and the General Assertiveness subscales of the IBS.

In a study researching the relationship between measures of physical health and spiritual well-being conducted by Hawkins and Larson (1984), age was found to be negatively correlated with RWB. A positive relationship between SWB, RWB, EWB, and self-ratings of health was also reported. People who are closer to their ideal body weight possess more spiritual well-being as suggested by a negative correlation between SWB, EWB, and weight ratio, when pregnant women were removed from the sample.

Palmer (1985) looked at hope's relationship to behavior through measurements of hope, locus of control, and SWB, in a sample from two smoking cessation classes. SWB was positively correlated with the Rotter-Internal Locus of Control scale.

Mullins (1986) found that SWB predicts functional activity level, return to work, or subjective pain rating, in a sample of chronic pain patients. SWB also predicted post treatment reduction of medication.

The previously mentioned study by Hawkins (1986) reported high blood pressure to be negatively correlated with SWB in a medical outpatient population.

Durham (1984) found a negative EWB correlation with age in a sample of two different Christian denominations, while Bressem, Waller, and Powers (1985), and Jang (1986) found a positive EWB

correlation with age in their studies of church attenders and Chinese-Americans respectively.

## Psychopathology and SWB

A number of studies have looked into the relationship between SWB and psychopathology.In a sample of male seminary students, Mueller (1986) found negative correlations between religiosity and psychopathology. His results suggest MMPI one-point and two-point code-types (indicators of types of pathology) have a negative relationship with SWB and EWB.

Mullins (1986) reported negative correlations between the clinical scale elevations and the K Scale of the Minnesota Multiphasic Personality Inventory (MMPI).

Frantz (1985) investigated MMPI and DSM III diagnosis in relationship to religious orientation, religious fundamentalism, and SWB, in a psychological outpatient population. His results indicated no significant correlation between SWB and psychopathology.

Sherman (1986) found eating disorder patients scored lower on RWB and EWB than the comparison group of medical outpatients. She also reported a positive relationship between SWB and IBS assertiveness scales in this population.

Papania (1987) investigated the effect of religious orientation, history of sexual trauma, and typology on Spiritual

Well-being and interpersonal behavior among adult male child molesters. His sample was comprised of 55 child molesters ages 19-72. Molesters who identified themselves as Christians and reported no history of sexual trauma scored highest on SWB. Those offenders identifying themselves as Christians with a history of sexual trauma scored higher ($M$ = 95.72, $SD$ = 18.16) than those professing as non-Christians ($M$ = 76.35, $SD$ = 14.71).

Notably, Christian molesters scored significantly higher on the RWB subscale than the non-Christian offenders, which supports the findings of Agnor (1986) and Bufford, Bently, Newenhouse, and Papania (1986). Papania states, "this may suggest that their Christian belief system and perceived sense of relating to God is not affected by sexual trauma. The Christian beliefs they hold may strongly reinforce their perceived sense of a relationship to God despite the developmental abuse inflicted upon them as children" (p. 134).

Rodriguez (1988) researched predictors of self-esteem and Spiritual Well-being among sexually abused women. Her results were similar to Papania's in that RWB scores ($M$ = 46.46, $SD$ = 11.48) were higher than EWB scores ($M$ = 39.44, $SD$ = 10.80). Overall SWB mean was 85.90 with a $SD$ of 19.70 in this sample of 50 women ages 18 to 60. Rodriguez also reported that her sample was actively practicing their religious beliefs; however, their SWB scores were not commensurate with the amount of well-being one might expect

given that amount of religious practice. It was suggested that religiosity without emotional well-being may not lead to spiritual well-being.

## Religious Variables, Groups and SWB

A number of studies have examined the relationship between SWB and spiritual maturity utilizing the Spiritual Maturity Index (SMI) and other religious variables. Correlations between the subscales of the SWB and the SMI have been shown to be high, raising questions as to the validity of Ellison's proposition that the two instruments are measuring distinct factors (Bressem, 1986; Bufford, et al., 1986; Cooper, 1986; Jang, Padden, & Palmer, 1985; and Mueller, 1986). Moberg (1985) suggests these intercorrelations reflect the aspects of a larger whole, and that the directly and indirectly observable aspects of spiritual well-being consist of a "complex multidimensional phenomenon, not a simple unidimensional variable" (p. 9).

Bufford (1984) reported SWB was positively correlated with EWB, RWB and Intrinsic Religiosity as measured by the Religious Orientation Scale (ROS), developed by Allport and Ross (1967). RWB was negatively correlated with Extrinsic Religiosity. SWB, RWB, and EWB were all positively correlated with frequency of church attendance, frequency of family devotions, importance of religion, and frequency and duration of personal devotions. SWB and RWB showed a positive correlation with self-reported religious knowledge. These results support the previously mentioned results of Ellison and Economos (1981).

Upshaw (1984) found support for the Bufford (1984) study, reporting RWB, EWB, and SWB to be positively correlated with Intrinsic Religiosity and negatively correlated with Extrinsic Religiosity.

Mueller (1986) also found that SWB scores correlated with intrinsic religious orientation as measured by the ROS, which is consistent with the Bufford (1984) results.

Durham (1984) looked at two different Christian denominations in terms of supernatural attribution, spiritual well-being, and God as Causal Agent (GCA). Results indicated that SWB, RWB, EWB were not significantly different between denominations; however, SWB and subscales scores were higher for the "born again" group than for the ethical group. Also, the SWB and its subscales were correlated with importance of religion and GCA. EWB showed a negative relationship with age and years as a church member.

In a later study using data gathered from subjects representing six different denomination churches, Durham (1985) investigated whether measures of religiosity (church attendance, importance of religion, ethical verses "born again") would have a positive correlation with SWB. He also hypothesized that GCA and attributions to supernatural intervention would be positively correlated with SWB. Results supported the hypothesis that religiosity, with the exception of church attendance, correlated

with SWB. SWB was also positively related to GCA and supernatural locus of control.

In a study evaluating cognitive style and spiritual well-being in church attenders, no correlation was found between SWB and Visualizer-Verbalizer scores. SWB and RWB were found to have a positive relationship with frequency and duration of personal devotions. EWB was positively correlated with age (Bressem, Waller, & Powers, 1985).

Bressem (1986), in a later study, found SWB, RWB, and EWB to have positive relationships with frequency and duration of personal devotions in a sample of 80 Bible college students. Results did not support his hypothesis that imaginal ability as measured by the Betts Questionnaire of Mental Imagery, Gordon Test of Visual Imagery, and Christian Use of Imagery, would positively correlate with SWB. However, RWB was positively correlated with attitude toward charismatic practices. There was no correlation between SWB and years of education, years as a Christian, years of Christian leadership, or church attendance.

Frantz (1985) investigated MMPI and DSM-III diagnosis in relationship to religious orientation, religious fundamentalism, and SWB, in a psychological outpatient population. He reported a positive relationship between EWB, RWB and the Religious Fundamentalism (REL) subscale of the MMPI. According to Greene (1980) "High scorers on this scale see themselves as religious,

church-going people who accept as true a number of fundamentalist religious convictions. They also tend to view their faith as the true one" (p. 22).

Jang, Padden, and Palmer (1985) reported SWB and RWB scores were positively correlated with internal locus of control as measured by the Rotter Locus of Control Scale in a sample of 43 Baptist church attenders. Also SWB and RWB were positively related to frequency of devotions per week.

In the Campbell (1983) study on hemodialysis patients, Campbell reported a positive correlation between religious coping, as measured by the Beck Depression Inventory, and SWB.

In an attempt to construct a predictive model for SWB, Clarke (1985) investigated predictors of spiritual well-being in 298 full-time Youth for Christ workers. The study used the SWB scale as a dependent variable with 19 predictor variables measuring job-related areas, Christian life, family background, and demographic factors. According to Clarke the results did not support such a predictive model.

In a study comparing 46 Baptist students and 51 Unitarians, Lewis (1986) reported that the Baptist students scored higher on RWB than the Unitarians, but not on EWB.

Bufford, Bently, Newenhouse and Papania (1986) evaluated religious and non-religious groups on SWB, RWB, and EWB using descriptive data previously gathered from eight clinical studies

involving fifteen samples. Non-Christian sociopathic convicts scored the lowest on SWB and RWB with Unitarians second. The non-christian sociopaths also scored significantly lower than all other samples on EWB. Seminarians scored higher on RWB, EWB, and SWB, than medical outpatients, United Methodists, Presbyterians, Baptists, Evangelicals, Unitarians and non-Christian sociopathic convicts. Appendix E provides means and standard deviations for many of the various groups studied thus far.

In studying the effect of small group attendance, personal devotions, and church attendance on SWB, Huggins (1988) concluded it would be helpful to encourage participation in small groups, church attendance, and personal devotions as ways to enhance spiritual well-being. An ANOVA regression statistic run on the sample of 285 adult attenders of Oregon Conservative Baptist Churches resulted in significant main affects for a linear combination of the three independent variables on the dependent variable SWB.

In the only cross-cultural study thus far, Jang (1986) investigated the relationship of acculturation and age of Chinese-Americans on spiritual well-being. Results indicated acculturation was significantly related to EWB, and that age was significantly related to SWB and EWB. Importance of religion, frequency of personal devotions, and years being a Christian were

positively correlated to SWB, RWB, and EWB. Frequency of church attendance was related to SWB and RWB but not EWB.

## Marriage, Family, Gender and SWB

Two studies have examined the relationship between parental spiritual well-being and children's adjustment. The first by Marto (1983) looked at ways paternal spiritual well-being related to children's self-esteem. Results did not indicate a significant relationship between a father's spiritual well-being and his child's self-esteem in this Catholic High School sample. An analysis of subscales suggested that self-esteem in the fathers themselves was predicted better by EWB and his self-esteem was not significantly related to RWB in the overall sample population.

The second study found inconclusive results when examining the relationship between maternal spiritual well-being and social adaptation status of their first grade children (Newenhouse, (1987).

An examination of SWB as related to marital satisfaction has been the subject of two studies. Upshaw (1984) investigated the effect of communication skills training on marital satisfaction, commitment, social desirability and SWB. Results indicated that Couples Communication Program treatment temporarily decreased EWB in a population of 24 couples married less than one year.

Quinn (1984) studied the relationship between religiosity, as measured by the ROS and SWB, and marital satisfaction. Small relationships were reported between indicators of marital distress and SWB, RWB, and EWB in this sample comprised of public high school teaching staff and two churches.

Temple, Upshaw, and Quinn (1983) reported working and nonworking mothers did not differ on SWB and EWB. In a study hypothesizing SWB to be greater in older and younger women, but not in middle-aged women, and that more education would result in increased spiritual-wellbeing among Christian women, Carpenter and Dean (1985) found no support in their results. Finally, Masburn (1986) examined whether sex-role combinations and sex-role identity had an effect on marital satisfaction and SWB among 103 married couples from selected Portland, Oregon area churches. Results indicated androgynous couples and individuals tended to have higher SWB scores.

## SWB Scale Test Structure

There has been one study completed and another is ongoing which investigate the SWB scale format. Meyers (1986) looked at the effect of two Likert labeling formats. The present format consists of SA representing Strongly Agree and SD representing Strongly Disagree as the extremes of answer options. The present format was compared to "Always True" and "Never True" substituted for SA and

SD with similar changes on the other four options, and a 1-6 numerical scale. Results were significant, but small differences suggested no benefit from revision of the present format.

The ongoing study of SWB format is being conducted by Brinkman and as yet is incomplete. The study is looking at substituting a scale of 1-100 for each item for the six-point SA through SD format in order to control for ceiling effects. Preliminary findings suggest revision of the present format is unwarranted as the breakdown of the 1-100 scale closely approximates the six categories presently existing (R.K. Bufford, personal communication, October, 1988).

## Research on Social Desirability and SWB

Correlational research and two predictive studies utilizing the Spiritual Well-Being Scale have been presented. Correlations reported in several studies thus far suggest the SWB scale may be vulnerable to social desirability, faking, impression management, or perhaps ceiling effects (Bufford & Parker, 1985; Carr, 1986; Mullins, 1986; and Parker, 1984). Studies related to social desirability and spiritual well-being will now be presented.

Prior to empirical demonstration, Ellison (1983) suggested the SWB scale did not appear to be seriously affected by social

desirability. Social desirability has been conceptualized on several instruments, such as the MMPI L and K scales, and on the Edwards and Marlowe-Crowne Social Desirability scales.

On the MMPI, social desirability is frequently defined per the L, F, and K validity scales. The L or "Lie" scale attempts to "identify persons who are deliberately trying to avoid answering the MMPI frankly and honestly (Greene, 1980, p. 35). The higher the scale, the more the individual is claiming socially correct behavior. The lower the scale, the more the person is willing to own up to general human weakness.

Though some disagree with Greene, he suggests the F scale measures a degree of conforming and, by unsophisticated persons attempting to "create an unusually favorable impression of themselves as in personnel selection" (1980, p. 37).

The K scale measures what the L scale does but in a more subtle way than the L scale, measuring defensiveness and guardedness.

Edwards (1957) suggested social desirability is "the scale value for any personality statement such that the scale value indicates the position of the statement on the social desirability continuum" (p. 3). In developing the Edwards Social Desirability Scale (ESDS), he selected items from the MMPI.

Crowne and Marlowe (1960) developed the Marlowe-Crowne Social Desirability Scale (MCSDS) as a content-independent measure of social desirability in order to separate item content from the

test-taking behavior of the respondent. They argued that the ESDS items might be characterized by their content (with psychopathological implications).

Parker (1984) looked at a seminary sample, examining the relationships between spiritual well-being and the validity and clinical scales of the MMPI, the IBS, and the Spiritual Leadership Qualities Inventory (SLQI). He found the L and K scales of the MMPI and Denial (DE) and Impression Management (IM) scales on the IBS all had positive relationship with SWB. The F scale of the MMPI and the Infrequency (IF) scale on the IBS had a negative relationship with SWB scores.

Bufford and Parker (1985), using the Parker (1984) data, reported positive correlations between the IBS DE and IM validity scales and SWB, RWB, and EWB scores. This positive relationship raises some interpretive problems; however, seminarians tend to score higher than the general population on these scales, and the scores were within normal limits.

An interesting finding was reported by Campbell, Mullins and Colwell (1984). They found SWB scores to be positively correlated with the (DE) scale on the IBS in a kidney center population. Though this finding was unexpected, the authors suggest:

> One understanding of this correlation is that with physical disease denial has been positively correlated with recovery. People scoring high on religious variables tend

> to deny common problems or shortcomings because they genuinely don't do some of the things mentioned in these questions (making fun of others, swearing, procrastinating) and because they view their relationship with God as giving them added strength to deal with life's difficulties. Within the context of these understandings denial can be seen as adaptive rather than maladaptive. (p. 12)

In studying the relationship between self-concept, spiritual well-being, and social desirability, Mitchell and Reed (1983) found self-concept was related positively with SWB. Most interestingly for the present study, they also found SWB to be correlated with the Edwards Social Desirability Scale. Regarding this correlation the authors state,

> though social desirability correlates highly with self-concept, it should be noted that there seems to be a curvilinear relationship between social desirability and psychological adaptiveness. People with low scores in social desirability tend to have low ego resources and those with high scores tend to be defensive, but moderate scores seem to be the most functional. (p. 10)

Another study investigating the relationship between social desirability and SWB was hypothesized that social desirability would be positively correlated with SWB, and that SWB would be

significantly influenced by social desirability (Clarke, Clifton, Cooper, Mishler, Olson, Sampson, & Sherman, 1985). The sample included Christians divided into mature and less mature groups according to their pastor's rating. Though the results indicated social desirability was significantly related to SWB and EWB, an analysis in which social desirability was held constant by partial correlation, found correlations between SWB, EWB, and other variables were not due to social desirability, thus the question of social desirability influencing SWB scores remains.

In studying construct validity of the Spiritual Leadership Qualities Inventory (SLQI) Carr (1986) used the SWB as one of the independent variables to compare subjects from seven different churches and a seminary. As Moody (1988) reports in a fine summation of Carr's study as it relates to social desirability, the

> Edwards Social Desirability Scale was positively correlated with SWB, RWB, and EWB, sharing 24%, 24%, and 16% common variance respectively. Because the SLQI, SWB, and subscales, and SMI are self-report inventories a proportion of the variance should be due to the response set of social desirability. This suggests that especially the SLQI and SWB have a substantial part of their variance due to the response set of social desirability. Wiggins (1968) ...sees the response set of social desirability as an organized disposition within individuals to respond in a

> consistent manner across a variety of substantive domains. Edwards (1957) believes there is evidence to indicate that this tendency is a stable personality characteristic orstyle. Thus it adds data concerning the individual himself. Another dimension of understanding is added by the large percent of variance (26%) due to social desirability in relation to the construct of the SLQI and as it relates to the personality structure and attitudes of the individual. (p. 42)

As previously mentioned Mullins (1986) found SWB and the K scale of the MMPI to be positively correlated among 41 chronic pain patients. He also reported SWB, RWB, and EWB to be positively correlated with the Impression Management of the IBS.

Also previously mentioned was the Frantz (1985) study which looked at L, F, and K MMPI scales in relationship to SWB in a population of psychological outpatients. The F scale was negatively correlated with SWB and its subscales, while there were no significant relationships between SWB and the L and K scales. Of the three scales, the L scale is accepted as the most appropriate indicator of outright lying, and F can be elevated due to sensitivity to pathology. Moody (1988) suggests another interpretation for a negative correlation between the F scale and SWB is that as pathology increases, well-being decreases. Other nuances exist within the MMPI and associated special scales, which

may with further research, prove interesting in relationship to the SWB scale, social desirability, and faking (Nichols, personal communication, October, 1988).

Hawkins (1986) reported SWB to have a positive relationship with the DE subscale on the IBS. He suggests the values which promote spiritual well-being might also promote denial,

> a low amount of denial can be just as destructive physically as a high amount of denial. If this is the case, these findings are not as concerning as they first appear. Hardly anyone would disagree with the fact that you cannot deal with all of life's problems all the time. This is simply impossible from a psychological point of view. All at times need to place conflicts 'out of their mind', to be dealt with at a later time. Certainly The Scriptures support a laying aside of problems, as is expressed in 'casting all your care upon Him' (I Peter 5:7, K.J.V.). When one truly believes that he is being cared for and protected by the Lord, it is possible not to become overly concerned about day to day problems. Of course, striving for a balance between personal problem solving and denial is the key. From a religious point of view perhaps denial is not the best term, but rather 'faith' and 'trust'. (p. 82-83)

The relationship between social desirability and denial is notable. Taylor and Brown (1988) reviewed literature addressing social cognition, reality, and illusions, and how positive illusions may promote mental health. They suggest that when negative, ambiguous, or unsupportive feedback is received, some social desirability or "positive sense of self, a belief in personal efficacy, and an optimistic view of the future" (p. 205), is desirable and adaptive. This "error-prone processing" or "positive illusions" leads a person to be happier, warmer, more caring, and more productive than the person who perceives the same information accurately and integrates it into his or her view of the self, world, and future. This concept is consistent with speculations by Campbell, Mullins, and Colwell (1984), and Hawkins (1986).

Moody (1988) writes succinctly,

> Throughout these studies there seems to be a trend toward moderate correlations with validity type scales, although the correlations vary with the samples. Even with a .3 significant correlation, we must keep in mind this only accounts for about 10% of the variance. Though these results give reason for the present study, the reader should not get the impression these results invalidate the SWB scale. (p. 44)

See Appendix F for correlations of SWB to measures of social desirability.

## Social Desirability Response Patterns and Faking Definition Problems

In the previous section social desirability was defined by the various authors and tests discussed. Those definitions are, however, inadequate. A review of the literature suggests definitions for faking and social desirability are imprecise, confusing, and often do not clearly distinguish faking from social desirability. Both these terms are placed under the general heading of response bias. They will both be clarified here and defined concisely at the end of the section.

The American Psychological Association (APA, 1970) identified the importance of falsification, or faking, when discussing testing and public policy; however, no definition was offered and much of the literature reviewed did not clearly distinguish faking from social desirability.

Anastasi (1982) wrote that self-report inventories are notoriously vulnerable to faking regardless of instructions to answer honestly. Thornton and Gierasch (1980) stated,

> Considerable evidence indicates that personality and interest tests can be faked. Of 34 empirical studies of

instruments used in industrial testing, 20 showed that faking increased the favorability of responses, one showed no faking effects and the remainder were equivocal. (p. 48)

Gordon and Gross (1978) believe that an instrument that lends itself to fakability "allows the respondent to emphasize socially desirable personal characteristics through careful selection of his/her answers" (p. 772). This concept suggests the possibility that test results may be affected by the fakability of the instrument (or some other reason related to response bias) and is exacerbated through impression management.

Neale and Liebert (1980) speculate that research using self-report instruments may produce misleading results. This is because of the underlying assumption by those utilizing self-report inventories that the individual responses reflect the disposition of the one tested. If that assumption is incorrect, results from such research may be misleading.

## Response Bias

Furnham (1986) defines response bias as "a generic term for a whole range of responses to interviews, surveys or questionnaires which bias the response (from the correct, honest, accurate response)" (p. 385). Included under response bias are response patterns such as social desirability, faking good, faking bad, impression management, acquiescence (the tendency to answer "true"

or "yes"), yea-saying, nay-saying, giving extreme responses, and giving mid-point responses.

Furnham (1986) defines faking, lying and dissimulating as concealing the truth under a feigned semblance of something different, or when a respondent is deliberately giving false responses in order to create a specific impression. He defines social desirability as one sort of faking -- the presentation of self in a positive light.

Though Crowne and Marlowe (1964) are vague in distinguishing social desirability from faking, they clearly believe vulnerability to faking invalidates the self-report inventory and that the difference is important. They suggest the difference is important for self-report inventories because of the relationship between a respondent's item endorsement of personality test items and the significance attached to those responses in light of construct validity. Should the subject succeed in faking good or faking bad in answering, then validity of the instrument is questionable.

One of the first researchers to test response bias was Cronbach (1946), who investigated true-false achievement type tests, and the tendency toward positive responding. Since Cronbach, many more studies have studied response bias, mostly in two areas. "The largest number have used self-report personality inventories and focused on acquiescence (the tendency to answer 'true' or 'yes')

and social desirability (the tendency to endorse items rated as reflecting socially desirable behaviors)" (Brown, 1987, p. 979).

When looking into the effects of response bias, there exist some basic considerations at three levels of data analysis. First, there is the interpretation of an individual's test score. If response bias is known to be present, the interpretation of that score will be different. Second, is the interpretation of a group's scores. When response bias is present it may affect the score distribution along with reliability and validity of the test. Third, the question has been raised whether response bias operates from test to test consistently. If it does, it represents an individual differences dimension perhaps important to study for its own sake (independently)(Brown, 1987).

The first two considerations view response bias as a form of measurement error. The third views it as a consistent personality feature in the individual tested. "If response biases are sources of reliable individual differences, the question of how to separate the effects of response biases from the effects of the trait or characteristic measured becomes an important issue" (Brown, 1987, p. 979-980).

## Response Sets, Response Styles, Social Desirability, and Impression Management

Literature differentiating response sets from response styles is sparse and contradictory. Two authors, Rorer (1965) and Kazdin (1980) clearly use the terms in different ways.

Definitions distinguishing social desirability from impression management have varied since the concepts were first studied. Sorting through the various definitions is tedious and difficult; however, a progression of thought is presented concluding with the more recent, and relatively clearer definitions.

It has been suggested there is a difference between response set and response styles. Rorer (1965) said response sets are content dependent and occur when individuals seek to present a specific type of picture of themselves, some examples being social desirability, faking good, faking bad, and impression management. Response styles, on the other hand, are relatively independent of content and occur when the test stimuli or tasks are ambiguous or the one tested is unsure as to the "appropriate" response. Some examples of response styles are guessing, positional habits, giving extreme or neutral responses, consistently saying "yes" (yea-saying) or "no" (nay-saying), and most rating errors.

While Rorer viewed social desirability as similar to purposeful lying and dissimulation, Edwards (1970) seems to suggest it is unconscious and somewhat independent of tendencies to purposefully

lie, dissimulate, or engage in impression management for ulterior motives. He also suggests that the extent to which a respondent is attempting to conceal part of his personality is defined as impression management. For Edwards, impression management is of a more conscious nature.

Because Dillman (1978) does not distinguish between conscious and subconscious responding, his definition of social desirability is difficult to distinguish from impression management. He suggests the following definition of social desirability: "...to answer questions in a way that conforms to dominant belief patterns among groups to which the respondent feels some identification or allegiance" (p. 62). This definition may imply some conscious attempt to identify with a group, thus it probably fits more snugly into Edwards' definition of impression management.

Though there may be no flagrant distortion in light of a respondent's own motives or self-interest, there is a likelihood of subtle and probably subconscious altering of responses resulting in presenting themselves in a favorable light. This is in keeping with Edwards' concept of social desirability.

Kazdin does little to clarify the difference between social desirability and impression management. He states:

> Individuals who complete self-report items are likely to endorse the socially condoned behaviors rather than the socially inappropriate behaviors. The pervasiveness of

> social desirability as a response style has led investigators to posit a specific personality trait referred to as the 'need for social approval' (Crowne & Marlowe, 1964). Individuals who are high in their need for social approval on a self-report measure behave in experimental situations in a way that maximizes approval from others. Thus the bias on self-report inventories goes beyond a specific set of measures. (Kazdin, 1980. p. 230)

Though he does not clearly say so, Kazdin seems to move toward unconscious responding in his definition, fitting more closely with Edwards' definition of social desirability. Also, Kazdin's use of response style is inconsistent with Rorer's response style, fitting more closely with Rorer's definition of response set.

Helmes and Holden (1986) suggest the concepts of social desirability, self-deception, and the approval motive should be studied further. They raise some appropriate questions, "Are these the same constructs under different names? What factors influence the conscious faking of a test?" (p. 858). In what may be the best definition reviewed yet, they suggest social desirability should be "seen as a semiconscious or unconscious process of normal personality functioning and not as a deliberate manipulation" (p. 853). In addition, Helmes and Holden suggest that pathological content in an instrument

> arouses a defensive style among some individuals in normal

> populations, which minimizes reported abnormal behavior (Arkin, 1981). This characteristic, termed 'self-deception' by Paulhus (1984), is distinct from another component of social desirability, impression management. Impression management is characteristic of a response style, whereas self-deception is an enduring characteristic or personality trait of an individual. (p. 857)

Helmes and Holden appear to define social desirability in a way similar to Edwards, Dillman, and Kazdin, though Dillman and Kazdin may include some conscious attempt to present an appearance by the respondent. Similar to Rorer, they also view impression management as a component of social desirability. They also add two dimensions, quoting from Paulhus (1984), that of "trait" and "state", and self-deception.

Paulhus (1986) presents the clearest definitions found thus far. He distinguishes self-deception (similar to social desirability) from impression management. He defines self-deception as any positively biased response that the respondent actually believes to be true (assumed to be in the service of protecting self-beliefs, including maintaining self-esteem). Paulhus says impression management is a conscious dissimulation of responses designed to create a favorable impression in an instrumental way (directed toward a purpose, rather intended to get the target to like them as a nice, healthy, upright person). It is

a subtle dimension of faking and is comprised of two types, "strategic" and "motivational". The two may be simplistically conceptualized as "impression management" equating to "state" and "self-deception" to "trait", and both are conscious responding patterns.

Strategic impression managers are seen as purposely faking to win a job or impress an experimenter (in this study, for example, to get hired by a pulpit committee or school search committee). This definition fits most closely with previous definitions of impression management and faking with the exception of Rorer.

Motivational impression managers are more closely related to the Marlowe and Crowne "need for approval" syndrome previously reported, and the Dillman, and Kazdin definitions of social desirability. Motivational impression management is the conscious pattern in the responder which attempts to get the examiner, or others, to like him or her as a nice, healthy, or upright person. Though neither Dillman (1978) nor Kazdin (1980) clearly distinguish conscious from unconscious responding in their definitions of social desirability, both appear to fit more closely with Paulhus' definition of "motivational" impression management.

Because impression management more closely fits with the objective of this study it is informative to review the findings of Jones and Pittman (1982). They distinguished five different types of people who use impression management: (a) The ingratiator, who

seeks to appear likable; (b) the intimidator, who seeks to appear threatening; (c) the self-promoter, who seeks to appear competent; (d) the supplicant, who seeks to appear helpless; and (e) the exemplifier, who seeks to appear virtuous. According to Paulhus (1986), the ingratiator and the intimidator are impression managing on a nurturance-hostility dimension; the self-promoter and the supplicant are impression managing on a dominance-submission domain. Relative to the present study, one treatment group in the sample is asked to respond to the SWB scale as "self-promoters" and the "exemplifiers".

In summary, it appears the literature is unclear as to specific definitions for social desirability and faking. Some authors view the two concepts as being the same, others see them as subtly different, while still others see them as unique and very distinct. For the purposes of this study, the author will use the definitions set forth in Moody (1988) which follow research by Edwards (1970) and Paulhus (1984, 1986). Faking and Impression Management will be seen as the same construct for this study. The definitions are presented here for continuity and are listed in Appendix J as well:

Response Bias: An general term which includes any response pattern not accurately reflecting the person responding (Furnham, 1986).

Response Style: A pattern of responding employed as a strategy when presented with ambiguous choices.

Social Desirability: An unconscious desire to be seen in a positive or negative light depending upon the circumstances (Edwards, 1970; Moody, 1988; Paulhus, 1984, 1986).

Self Deception: Any positively biased response that the respondent actually beiieves to be true (assumed to be in the service of protecting self-beliefs, including maintaining self-esteem) (Paulhus, 1986).

Response Set: A specific purposeful pattern of responding.

Faking: A deliberate conscious attempt to create a particular impression on a test whether good or bad (Usually aimed at winning a new job, or gaining favor for a purpose) (Edwards, 1970; Moody, 1988; Paulhus, 1984, 1986).

Impression Management: Conscious dissimulation of responses designed to create a favorable impression (can be "strategic", in order to win a new job, or "motivational", intended get the target to like them as a nice, healthy, upright person) (Paulhus, 1986). Though Paulhus does not address negative impression management, logic implies it exists.

With definitions now established germane to this study, a discussion of the disadvantages and advantages of self-report instruments is in order.

## Disadvantages and Advantages of Self-Report Instruments

The previous section illustrated the confusion among definitions for social desirability and faking, making discussion of the two patterns of responding difficult. This section presents some of the disadvantages or problems concerning the use of self-report instruments.

Kazdin (1980) says self-report instruments tend to depend heavily upon verbal skills, thus intelligence and verbal comprehension. Many instruments use negative wording, in order to reduce response sets, which heightens the potential for comprehension problems.

Eight sources of response set problems are presented by Lewin (1979). One is demand characteristics of the experimental setting. These are "cues which suggest to a subject what the hypothesis is or suggest other information which significantly influences his or her behavior" (p. 103). The second is clear knowledge of the hypothesis. Third is enlightenment effects, which happen if the subject is psychologically sophisticated and is aware of particular results of past research. Fourth and fifth are good and bad subject roles, which are closely related to faking and social desirability. These response set problems involve subjects who try to guess what the preferred outcome of the experiment is, and respond to the independent variable in a way other than they would

in a non-experimental situation. Evaluation apprehension is the sixth problem, and occurs when a subject is worried about revealing himself. Reactance is the seventh, which is a tendency by the subject to defend his or her freedom of choice by answering oppositionally. Experimenter expectancy is the eighth problem. This is due to the experimenter, who knows the hypothesis and has some opinion or desire for a specific outcome. Problems four, five, and six are the ones most likely to affect the utility of the SWB scale in selecting a Pastor, teacher, or elder.

Because of the high susceptibility of self-report instruments to faking, Yuker (1986) suggests cautious use when interpreting scores as indicative of absolute levels of attitudes. He also suggests there is a distinction between an instrument being fakable and faked scores.

> Even though many instruments may be fakable, particularly by knowledgeable participants, we need to know the conditions under which responses are faked. Actually faking may well depend more on the conditions under which the instrument is administered and the uses to which the results are put than to potential faking of the measure. (p. 203)

Regarding faked scores, Yuker (1986) suggests faked scores might be useful as predictor variables.

In addition, it might be interesting to conduct research to

> determine whether scores obtained under instructions to 'fake well' could be used as a predictor variable. Persons who are able to obtain very positive ATDP (Attitude Toward Disabled Persons) scores under instructions might turn out to be effective rehabilitation personnel because they seem to be aware of what constitutes 'positive attitudes.' It is possible that in the course of graduate training, students learn to express 'appropriate' attitudes. If these attitudes are expressed in behavior, we need not be concerned with whether or not they are 'deeply felt.' Perhaps some rehabilitation personnel do not know what positive attitudes toward disabled persons are, which, along with methodological problems, could account for some of the findings indicating that service providers have negative perceptions of disabled persons. (p. 203)

The final problem with self-report inventories has to do with whether the instrument is sensitive enough to reflect the influence of the independent variable. Yuker (1986) states:

> Self-report measures have been designed to assess a wide range of characteristics, which vary in the degree to which they are stable and amenable to change. Some measures are designed to assess persistent abilities and skills that should not change very much over time; others are designed

to assess characteristics that are very transient and readily subject to change. (p. 232)

As previously mentioned, Ellison conceptualizes the SWB scale as measuring at a point in time, and as being sensitive to change over time.

Though the problems of self-report inventories suggest they should not be used, there are distinct advantages they do provide. Self-report inventories allow assessment of a subject's feelings and behaviors over a broad range of situations and they lend themselves to a comprehensive presentation of the subject. They are ideal initial screening instruments because they are simple and economical to administer. Also, when answered honestly, face valid self report inventories are the simplest and most direct approach. "Face Validity" produces obvious relevance and fosters cooperation (Anastasi, 1982).

Kazdin (1980) suggests self-report inventories are widely used because many psychological problems are defined according to what subjects say or feel. They measure aspects of many problems, may assess the central problem itself, and allow for report about the subject's world or experience, which is important both diagnostically and therapeutically.

The SWB scale is most vulnerable to the fourth, fifth, and sixth problems as outlined by Lewin (1979). Examining the fourth and fifth (faking good and bad respectively) is the purpose of this

study. One study attempted to investigate faking on the SWB scale. That study will now be discussed.

## Faking and the SWB Scale

Because the SWB scale possesses high face validity it seems it would be easy to fake. "Furnham and Henderson (1982) have argued that the greater the face validity of the measure, as well as the comprehensibility (popularity) of the concept being measured, the more easy it is to fake" (Furnham, 1986, p. 810).

Moody (1988) examined the effects of deliberate faking good and faking bad on the SWB scale in a church population. Her sample included 172 adults from a Portland, Oregon Community Church Sunday School class and a group for those overcoming an addictive behavior and/or substance abuse. The sample was divided into three groups with separate instructions for each group. One group was instructed to present themselves as favorably as possible, a second group was instructed to present themselves as negatively as possible, and the third group was instructed to answer honestly. Results indicated the SWB can be negatively faked. The honest and fake good groups had no significant difference between scores. To the extent that faking good occurs on the SWB scale, these results suggest there is no way to tell the difference between honest and faking good scores on the SWB scale at the present time. The

possibility of faking good should not be ruled out; however, Moody cautions, the ceiling of the SWB scale may not be high enough to distinguish honest responding from faking good.

Moody (1988) suggests two interpretations for the lack of significant difference between honest and fake good scores. First, it may be that "the honest group is already responding from a social desirability stance and thus there is no difference between its scores and those of the fake good group" (p. 132). The second and more probable interpretation is that the ceiling to the SWB scale is too low for the fake good group to significantly surpass the honest scores. Moody (1988) suggests three variables support this view: "the standard deviations of the groups, the range of scores, and the numbers of people scoring at the top of a scale score" (p. 132). Other studies also suggest the ceiling of the SWB scale may be too low (Colwell, 1986; Mueller, 1986).

Moody (1988) suggests ceiling limitations may have suppressed the range in both the Honest and Fake Good scores for RWB and SWB. For the Honest treatment group, the range of RWB scores was 34 points with 27 of 57 (47%) participants scoring in the top 10% of the maximum possible, and 12 of those achieving the maximum score. For the Fake Good treatment group, the range of RWB scores was 33 points with 38 of 59 (64%) participants scoring in the top 10% of the maximum possible, and 21 of those achieving the maximum score. For SWB, three Honest and six Fake Good participants had maximum

scores. For the Honest group, 18% scored within the top 10% possible, while for the Fake Good group, 41% scored within the top 10% possible. Moody suggests these suppressed ranges accounted for the standard deviation differences between fake bad (29.91) and the honest (17.34) and fake good (15.36) groups. See Appendix G for Moody's data on range and frequency of scores, and the number of participants achieving maximum and minimum scores by treatment group.

These issues of suppressed range and high percentages of respondents scoring at the top of the range by the fake good group support the notion that the ceiling of the SWB scale is not high enough. A higher ceiling would likely have produced a wider range of scores with increased spread along the top of the range. The honest group had similar findings, suggesting the ceiling problem is an issue for the SWB scale itself as well as those faking good on it.

## Rationale and Purpose of the Study

It has been presented that interest in the psychology of religion, and specifically spiritual well-being, is increasing. The Spiritual Well-Being Scale developed by Ellison and Paloutzian is continuing to be researched as a measurement of spiritual

well-being and has been the subject of over 40 studies at Western Conservative Baptist Seminary.

Though Ellison did not believe so, a review of the literature suggests the SWB scale may be affected by social desirability. Some studies raise questions as to the utility of the scale because of high correlations between social desirability and SWB scores. Others suggest there may be a curvilinear relationship between the two, and that moderate correlations may in fact be healthy.

In reviewing the literature, it has become evident that definitions of social desirability and faking are inconsistent and confusing. Both terms are categorized under the general term "response bias", something to which self-report inventories, such as the SWB scale, are especially vulnerable.

Following Edwards (1970), Paulhus, (1984, 1986), and Moody (1988), this study defines social desirability as, "a more or less unconscious tendency for an individual to present herself or himself in a positive light". Faking is defined as, "a deliberate conscious attempt to create an impression on a test". Response patterns which appear to be faked may result from social desirability or of some other factor such as the possibility of ceiling effects on the SWB scale itself. That faking and social desirability might co-exist within SWB scores has not yet been empirically ruled out.

The vulnerability of the SWB scale to faking has only been studied once, with inconclusive results regarding honest and fake good scores. That study (Moody, 1988) examined a Christian population. The SWB scale was shown to be amenable to faking in a negative direction. Results did not provide evidence of faking good; however, fake good and honest score similarities may have been due to a low ceiling on the SWB scale itself. It has not been demonstrated whether a religiously inactive population is able to fake in any direction on the SWB. Because a religiously inactive person may not have the knowledge or religious sophistication of a religiously active person, this study purposes to examine differences between fake good, fake bad, and honest responses in a religiously inactive population. Previously reported data (Bufford, Bently, Newenhouse, & Papania, 1986; Papania, 1987) show non-religious samples score lower on the SWB than religious samples. Given that "non-religious" and "religiously inactive" are similar, and "religious" and "religiously active" are similar, this should reduce problems of confusing faking with ceiling effects. Presumably, if the religiously inactive "Honest" SWB scores cluster in the 70-80 range and the "Fake Good" SWB scores cluster in the 90 range then ceiling would appear to be less of a factor in a religiously inactive sample.

Three conditions will be examined in a true experimental design: fake good, fake bad, and respond honestly. The null hypotheses are:

1. There will be no significant difference among the means of the three treatment groups for SWB.

2. There will be no significant difference among the means of the three treatment groups for RWB.

3. There will be no significant difference among the means of the three treatment groups for EWB.

In addition to testing the three hypotheses, correlations between RWB, EWB, and SWB scores and demographic data will be examined.

# CHAPTER 2

# METHOD

This chapter details the method used in this study of faking good and faking bad on the Spiritual Well-Being Scale (SWB). The chapter is comprised of three parts: (a) a demographic description of the subjects, (b) an explanation of the instruments utilized, and (c) the procedure used to gather and analyze the data.

## Subjects

Participants for this study were drawn from two Oregon Air National Guard units based in Portland, Oregon. These units perform one weekend of duty each month. One unit consisted of 92 attending members and the other 147 attending members. Both units have similar specialty slots, performing similar missions and jobs. Members of each unit included males and females representing a heterogenous sample of the Northwest. The range of civilian

occupations of members included electricians, draftsmen, telephone repairmen, office employees, teachers, and business consultants. Permission to test each unit was granted by Oregon Air National Guard Headquarters personnel and the respective unit Commanders. Both units were provided a brief introduction to the study at their Saturday morning Commander's Call, December 3rd, 1988. A copy of the verbatim introduction is found in Appendix C. The administration of the packet was given during the lunch hours of both units on the same day. A total of 80 packets were returned from the 92 member unit (24 Fake Good, 25 Fake Bad, 31 Honest, and 12 refusals); 71 packets were returned from the 147 member unit (24 Fake Good, 24 Fake Bad, 23 Honest, and 76 refusals).

## Instruments

This section contains two parts: (a) a description of the background information questionnaire, and (b) the Spiritual Well-Being Scale.

### Background Information Questionnaire

Subjects were requested to respond to a demographic questionnaire providing the following data: age; gender; marital status; three questions related to social relationships; financial condition; importance of religion; satisfaction with current life;

frequency of church attendance; frequency of personal devotions; Christian profession; and number of years as a professing Christian. These variables were chosen because they closely replicate the questionnaire of Moody (1988) and are similar to variables used in other studies, thus adding to the data for comparative analysis. Some of Moody's (1988) items were deleted because they were considered irrelevant to this population. Those items were questions about religious knowledge and development, church leadership experience, and specific income. The background questions were closed ended with ordered answer choices because, "The closed ended ordered answer choices is ideally suited for determining such things as intensity of feeling, degree of involvement, and frequency of participation...(and are) very appropriate when researcher has a well-defined issue and knows precisely what dimension of thought he wants the respondent to use in providing an answer" (Dillman, 1978, p. 89). A copy of the demographic questionnaire is found in Appendix A.

## Spiritual Well-Being Scale

The Spiritual Well-Being Scale (SWB) is a 20 item self-report questionnaire (See Appendix B). Items are scored from 1-6 with the higher score representing greater well-being. In order to control for acquiescence response set, half of the items are worded negatively and the scoring is reversed. The ten even numbered

items measure Religious Well-Being (RWB, a vertical dimension) while the ten odd numbered items assess Existential Well-Being (EWB, a horizontal dimension).

Ellison reports correlations between RWB and EWB scores at .32; SWB and RWB at .90; and SWB and EWB at .59, at the .001 level of significance (Ellison,1983). Paloutzian and Ellison (1979b) reported test-retest reliability at .93 for SWB, .96 for RWB, and .86 for EWB. Coefficients alpha, an index of internal consistency, were reported at .89 for SWB, .87 for RWB, and .78 for EWB. A more thorough description of SWB was provided in chapter one.

## Procedure

The total test packet, containing the Background Information Questionnaire and the Spiritual Well-Being Scale, was given to each participating member of both units during their lunch break on 3 December, 1988. Each participant volunteered approximately 15 minutes of their lunch break to participate in the study. Participants were solicited and had been given an introduction to the study at each unit's respective Commander's Call that morning. They were <u>not</u> told of the different forms of instructions for the SWB. A verbatim of the introduction is found in Appendix C. All the background questionnaires were identical. The SWB scale was printed with three different forms of instructions at the top:

1. The first group was told to, "Imagine you are applying for a job as a Pastor, Priest, Elder, or teacher in a Christian environment. Answer in the way that would **most favorably** impress someone with your degree of adjustment, spiritual maturity and wellbeing".

2. The second group was told, "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." This is the instruction sentence developed by Ellison and Paloutzian (1978).

3. The third group was told to, "Imagine you are being evaluated, **against your will**, for a job as a Pastor, Priest, Elder, or teacher in a Christian environment. Answer in the way that would **least favorably** impress someone with your degree of adjustment, spiritual maturity and wellbeing".

The forms were placed into stratified blocks of 18 with six "Fake Good", six "Fake Bad", and six "Honest" forms randomly mixed using a random numbers table. The SWB scale form was inserted between questions five and six of the Background Information Questionnaire to increase likelihood of completion and return rate (Dillman, 1978). Participants were given the top form as they entered the testing room. They were allowed to sit randomly as desks were placed far enough apart to limit contamination due to participants seeing another person's SWB form instructions.

Participants were instructed to read instructions on a chalkboard at the front of the room before beginning. Those instructions told the subject to carefully read the survey instructions before beginning to fill out their materials. A verbatim of those instructions is found in Appendix C. Participants were informed of the confidentiality of the testing per cover letter on each packet and verbally at the Commander's Call introduction. Informed Consent was obtained by soliciting volunteers and by instructions to return the bank survey to the research assistant, "should you decline to take the survey." Anonymity was reassured through not placing names on any protocol. An assistant at the door of the testing room checked each participant against a current master attendance roster for each unit as they entered the testing room to control for any person receiving the materials twice. The list was destroyed following the administration in order to assure anonymity.

## Research Design

Anastasi (1982) provided evidence demonstrating two ways of faking good or bad. First, is to have three groups of respondents with different instructions: One group is to be honest, one is to answer in such a way as to look good, and the third is to answer in such way as to look bad. The second way is to have a group take

the same instrument twice, once answering honestly and the second time faking good, then compare the results.

This design utilizes Anastasi's first way of demonstrating faking, with three levels of the independent variable: fake good, fake bad, and honest. An analysis of variance (ANOVA) will be performed for each of the dependent measures: SWB, RWB, and EWB. The level of significance for the ANOVA's was set at $p \leq .05$.

Should the $F$ statistic reveal a significant effect for the different treatment groups, a Scheffe' post hoc test will be performed after the analysis of variance to examine where the differences lie. The Scheffe' post hoc test is a general method which can be applied to all comparisons of means following an analysis of variance (Kerlinger, 1973). The Scheffe' test allows one to sift back through the data and compare individual treatments two at a time against the third, all the differences among means, or any combination of means against any other combination of means (Kerlinger, 1973). In this study the fake good and fake bad scores were compared to the honest scores and to each other. For post hoc tests, the level of significance was set at $p \leq .05$.

"Analysis of variance is a statistical technique that is used to compare two or more treatments (or two or more populations) to determine whether there are any mean differences among them" (Gravetter and Wallnau, 1985, p. 390). ANOVA tests the null hypothesis that states there are no differences among the treatment

means; a significant main effect supports the alternative hypothesis that says treatment mean differences do in fact exist. It is clear then, that the analysis of variance statistic is appropriate for this study.

Scheffe's test is selected for post hoc testing because it results in the fewest false positives. "The Scheffe' approach has this optimum property: the type 1 error is at most alpha for any of the possible comparisons .... The Scheffe' method is clearly the most conservative with respect to type 1 error; this method will lead to the smallest number of significant differences" (Winer, 1962, pp. 88-89). Utilizing the most stringent post hoc test minimizes any factors other than the independent variable accounting for the results. Because of the ramifications this study might have on the SWB scale the most conservative of post hoc tests is in order.

This study examined the vulnerability of the SWB scale to faking by religiously inactive people. Therefore, prior to performing the above statistics those participants who were religiously active were selected out from those who were religiously inactive. Participants were assigned to religiously active and religiously inactive groups based upon answers to two questions on the background information questionnaire. A participant who answered <u>either</u> question below the cutoff was defined as religiously inactive. The questions are: "Frequency of

church attendance" and "Frequency of personal devotions." Frequency of church attendance was divided as 3-11 times a year or less being religiously inactive and 1-3 times a month or more assigned to religiously active. This cutoff point was arrived at through consideration that persons attending for only specific holidays or family events (e.g. Christmas, Easter, Memorial Day, Infant Baptisms and baby dedications) are not religiously involved. The frequency of personal religious devotions question was divided at "Not at all" as being religiously inactive and "Less than once a week" or more being religiously active. This seems the most appropriate division as it demonstrates active personal responsibility for religious growth.

Once the religiously active cases were selected out, ANOVA's and Scheffe' post hoc testing was performed on the three levels of treatment for RWB, EWB, and SWB, for the religiously inactive cases. Raw data for the religiously active cases is included in Appendix L, but no analysis was performed as that data is not germane to this study.

# CHAPTER 3

## RESULTS

This chapter presents the results of the data analysis in the following sections: (a) the missing data and incomplete responses, (b) descriptive statistics of the sample according to demographics and religious variables, (c) correlations between SWB, RWB, EWB, and the demographic variables, (d) the presentation of the results of the faking instructions.

All statistics were calculated utilizing the Statistical Package for the Social Sciences/Personal Computer (SPSS/PC+) computational package on an IBM XT computer system. Crosstabulations and Chi-Square were calculated for demographic variables. Correlations were calculated utilizing the Pearson Product Moment Correlation Coefficient. Hypotheses were tested using one-way ANOVA and Scheffe' post hoc testing. Critical values

for significance were established at the $p \leq .05$ for all statistics.

## Missing Data and Incomplete Responses

Of the unit with 147 attending members, 75 (51%) did not enter the room to pick up a questionnaire. One person who picked up the questionnaire chose not to participate. Of the unit with 92 attending members, 8 (9%) did not enter the room to pick up a questionnaire; four persons entered the room but chose not to participate. The total participation rate for the possible 239 participants was 151 (63%).

While demographic questions were computed for the sample who completed that particular question, of the 151 cases, 7 did not complete one or more questions on the Spiritual Well-Being Scale, reducing the number of included cases to 144. After the religiously active cases had been selected out from the 144, 94 religiously inactive cases remained. Thus the total number of cases computed in this sample was 94.

## Demographics

Of the total sample ($n = 94$), 34 fell in the Honest treatment group, 33 in the Fake Good treatment group, and 27 in the Fake Bad

treatment group. The demographics will be discussed in this section in terms of the total sample, and in some cases information will be broken down into treatment to see how the treatment groups compared.

## Age

The mean age of the sample was 33.17 (*SD* 9.71) with a range of 35, from 19 years of age to 54. Table 1 shows how this compared across treatment groups.

Table 1

*Descriptive Statistics - Age*

| | Mean | *SD* | Cases |
|---|---|---|---|
| Total Sample | 33.17 | 9.71 | 94 |
| By Treatment | | | |
| Honest | 34.18 | 9.25 | 34 |
| Fake Good | 32.30 | 9.9 | 33 |
| Fake Bad | 32.96 | 10.29 | 27 |

## Gender

Although gender will not undergo analysis, it is reported here as a demographic variable describing the sample. For the entire sample, 79 or 84%, were male, and 15, or 16%, were female. Table 2 shows the number and percentage of males and females in each of the treatment groups.

Table 2

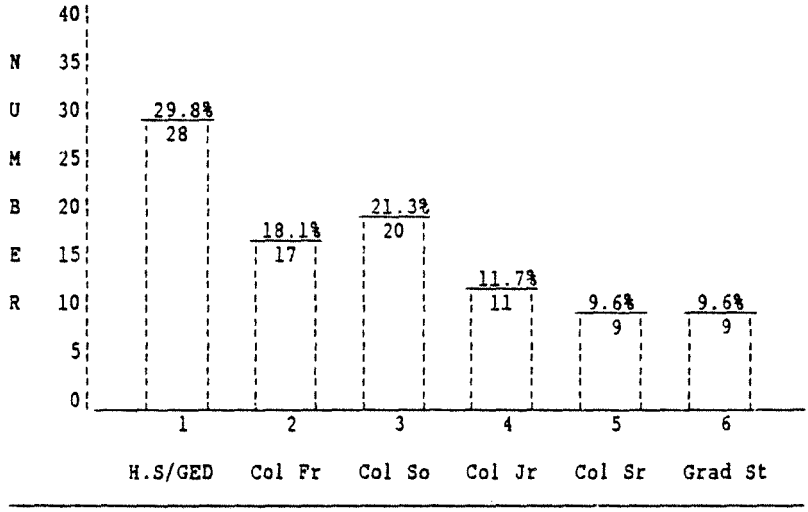
Descriptive Statistics - Gender

| | Male | | Female | |
|---|---|---|---|---|
| | N | Percent | N | Percent |
| Total Sample | 79 | 84.0% | 15 | 16.0% |
| By Treatment | | | | |
| Honest | 31 | 91.2% | 3 | 8.8% |
| Fake Good | 27 | 81.8% | 6 | 18.2% |
| Fake Bad | 21 | 77.8% | 6 | 22.2% |

## Education

Figure 1 presents the number and percentage of participants in each of the six categories describing education. Of the sample, 29.8% had a high school education or GED equivalent; 9.6% had

graduated from college with a four-year degree; 9.6% had continued on for post-graduate studies. The balance (51%) had some college, but had not completed a four-year degree. Mean years of education for the entire sample was 2.8 years of college (SD 1.91). Table 3 presents the breakdown of education by treatment group.




Note: N = 94

Figure 1. Descriptive Statistics for Education - Number of Years Completed

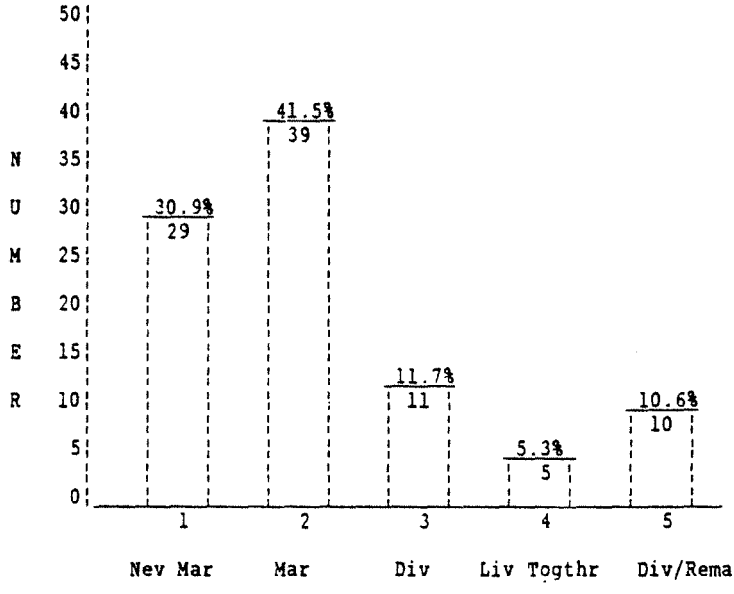
Table 3

Description of Education by Treatment

| Category | Honest N | Honest Percent | Fake Good N | Fake Good Percent | Fake Bad N | Fake Bad Percent |
|---|---|---|---|---|---|---|
| HS or GED | 10 | 29.4% | 10 | 30.3% | 8 | 29.6% |
| College Fr | 5 | 14.7% | 8 | 24.2% | 4 | 14.8% |
| College So | 8 | 23.5% | 6 | 18.2% | 6 | 22.2% |
| College Jr | 3 | 8.8% | 1 | 3.0% | 7 | 25.9% |
| College Sr | 3 | 8.8% | 5 | 15.2% | 1 | 3.7% |
| Grad Studies | 5 | 14.7% | 3 | 9.1% | 1 | 3.7% |

## Marital Status

Figure 2 shows the number and percentage of participants in each of the eight categories describing marital status. Of the sample, 41.5% of the participants were married ($n$ = 39). The second largest number of participants (30.9%) were never married. No participants reported themselves as Widowed, Separated, or Widowed and Remarried. Table 4 presents the breakdown of marital status by treatment group.




Note: N = 94.

Figure 2. Descriptive Statistics for Marital Status

Table 4

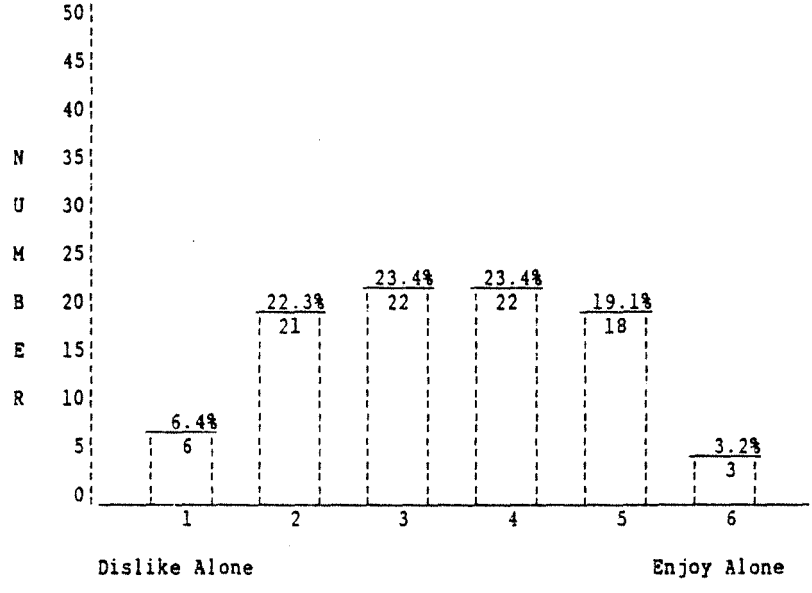
Description of Marital Status by Treatment

| | Honest | | Fake Good | | Fake Bad | |
|---|---|---|---|---|---|---|
| Category | N | Percent | N | Percent | N | Percent |
| Never Married | 11 | 32.4% | 12 | 36.4% | 6 | 22.2% |
| Married | 17 | 50.0% | 9 | 27.3% | 13 | 48.1% |
| Divorced | 2 | 5.9% | 6 | 18.2% | 3 | 11.1% |
| Liv. Together | 2 | 5.9% | 1 | 3.0% | 2 | 7.4% |
| Div/Remarried | 2 | 5.9% | 5 | 15.2% | 3 | 11.1% |
| Total | 34 | | 33 | | 27 | |

Note: N = 94

## Social Relationships - Alone

Figure 3 shows a rating of categories 1 to 6 for social relationships pertaining to a person dislikes being alone (category 1) to enjoys being alone (category 6). Of the sample, 52.1% rated themselves toward dislike of being alone, while 45.7% of the sample rated themselves toward enjoying being alone.

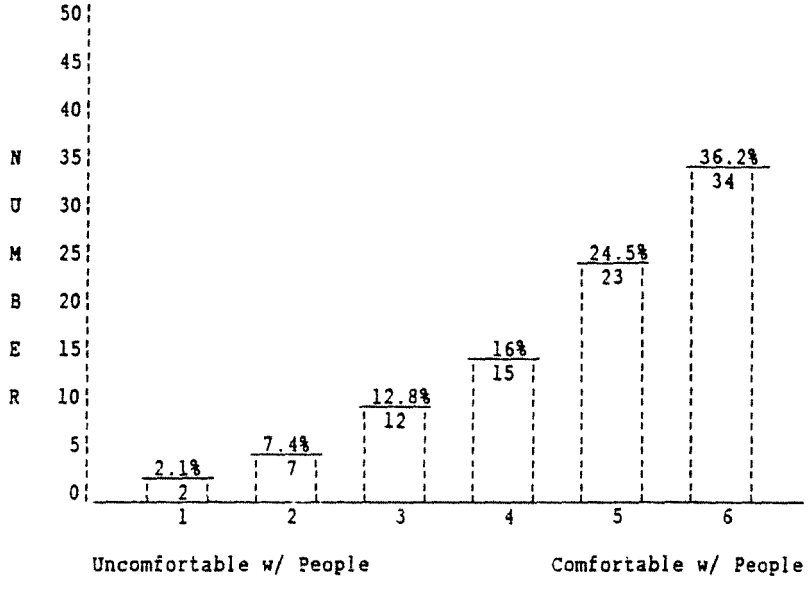



Note: N = 94. There were two missing observations, thus the percentages do not add up to 100.

Figure 3. Social Relationships - Alone

## Social Relationships - Comfort with People

Figure 4 presents the rating of social relationship in terms of comfort with other people. The categories range from 1 (uncomfortable with people) to 6 (enjoy being with people). Of the sample, 60.7% rated themselves in the two top categories of most enjoying being with people.

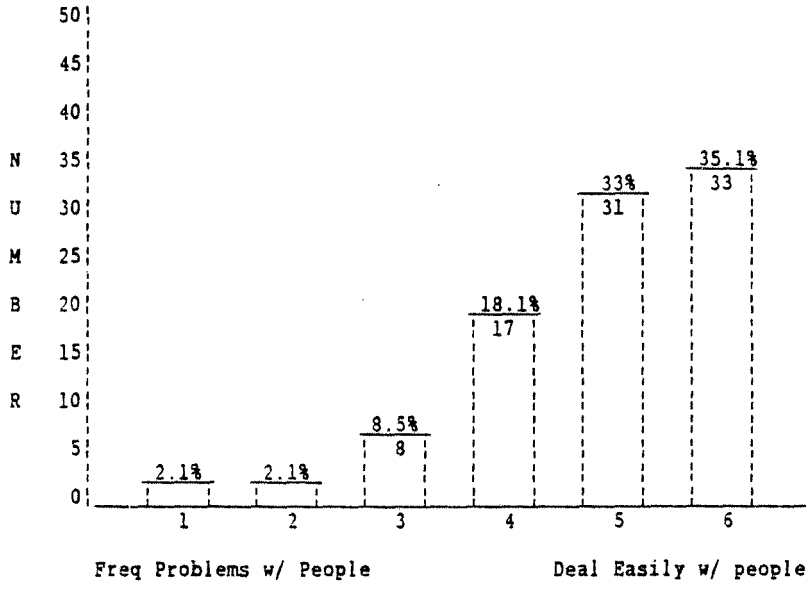



Note: N = 94. There was one missing observation, thus the percentages do not add up to 100.

Figure 4. Social Relationships - Comfort with People

## Social Relationships - Problems with People

Figure 5 shows the rating of social relationship in terms of having problems with people. The categories range from 1 (frequent problems with people to 6 (dealing easily with people). Of the sample, 68.1% rated themselves in the two top categories of dealing easily with people.

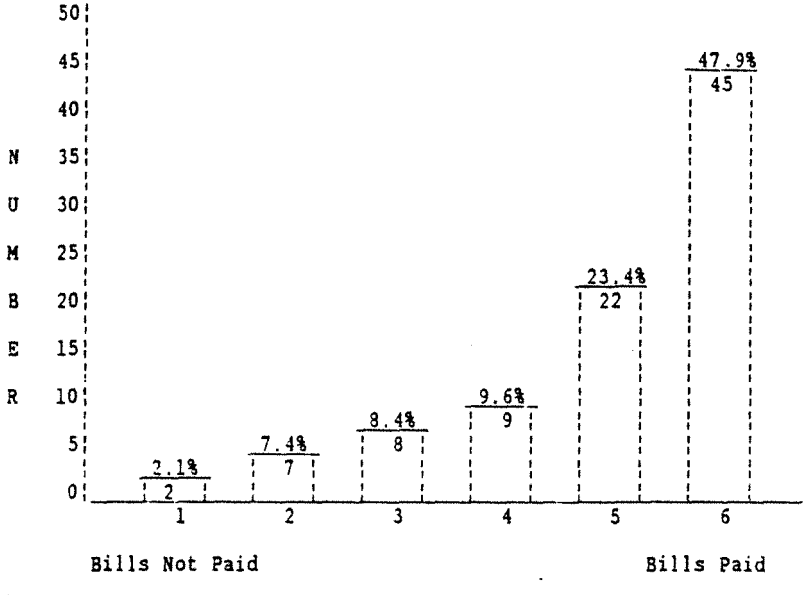



Note: N = 94. There was one missing observation, thus the percentages do not add up to 100.

Figure 5. Social Relationships - Problems with People

## Financial Condition

Figure 6 shows the financial condition of the sample on a scale from 1 (chronic problems paying bills) to 6 (bills are paid). Of the sample, 71.3% were in the top two bills paid categories.

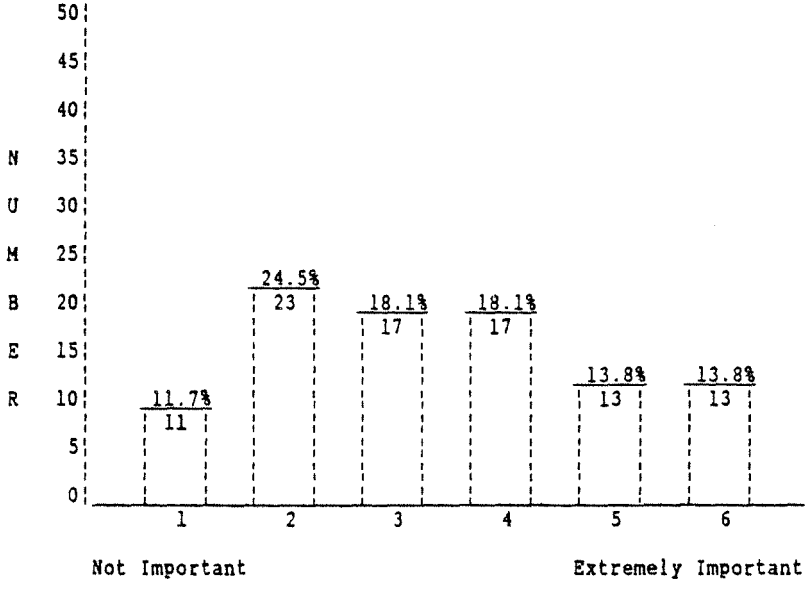



Note: N = 94. There was one missing observation, thus the percentages do not add up to 100.

Figure 6. Financial Condition

## Importance of Religion

Figure 7 presents the rating of participants on how important religion is to them. Categories range from 1 (no importance) to 6 (extremely important). Of the sample, 54.3% rated themselves on the not important side of importance of religion; 45.7% rated themselves on the extremely important side.

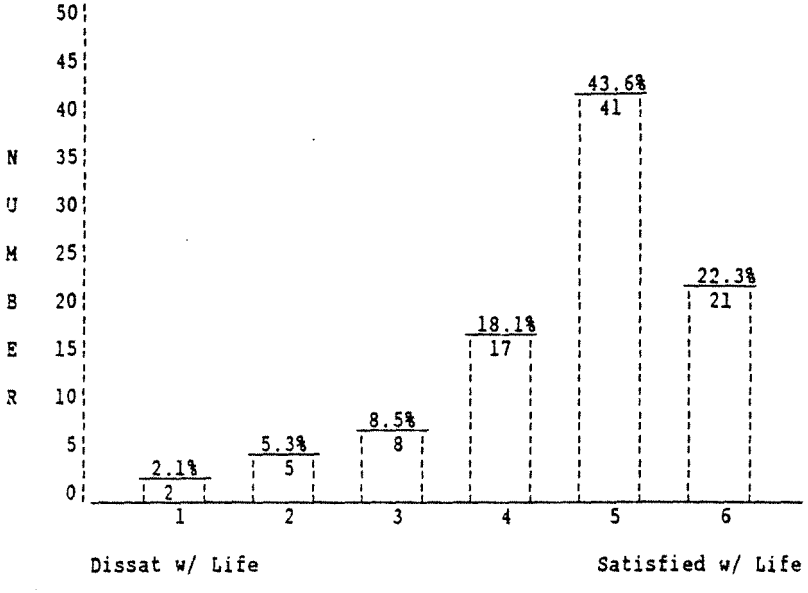



Note: N = 94

Figure 7. Importance of Religion

## Satisfaction with Current Life

Figure 8 gives the rating of people on how satisfied they are with their current life experience. Categories range from 1 (quite dissatisfied) to 6 (quite satisfied). Of the sample, 67.9% rated themselves in the top two categories of being satisfied with their current life.

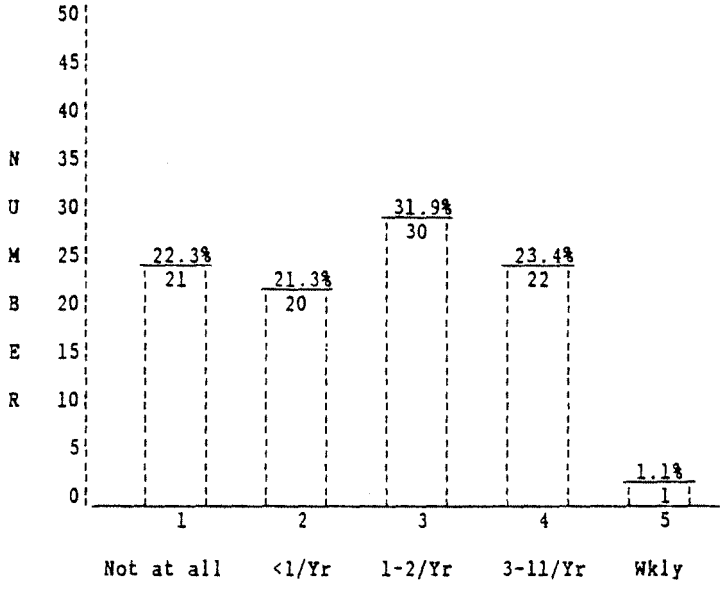



Note: N = 94

Figure 8. Satisfaction with Current Life

## Frequency of Church Attendance

Figure 9 shows the frequency of church attendance for the sample. Of the sample, 31.9% said they attend church once or twice a year; 22.3% said they never attend at all. One participant said they attended weekly. Table 5 provides a breakdown of church attendance by treatment group.




Note: N = 94.

Figure 9. Frequency of Church Attendance

Table 5

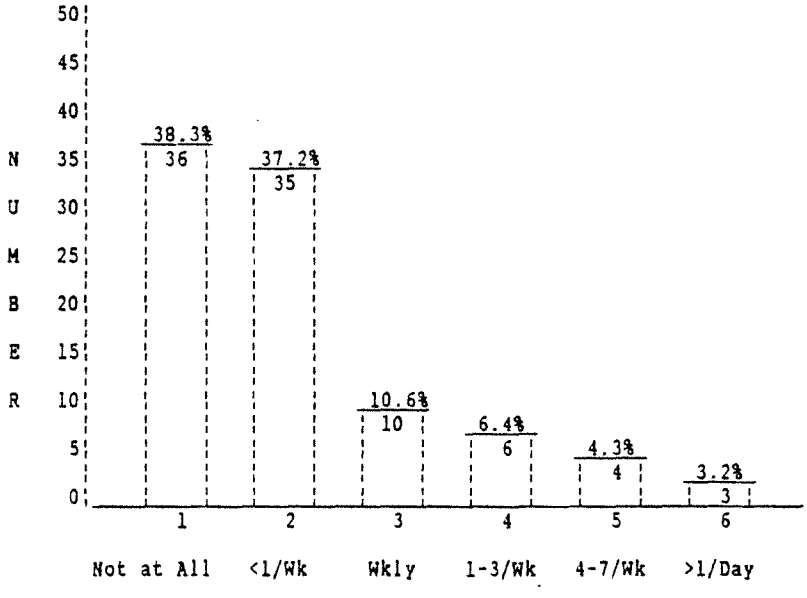
Frequency of Church Attendance by Treatment

| Category | Honest | | Fake Good | | Fake Bad | |
|---|---|---|---|---|---|---|
| | N | Percent | N | Percent | N | Percent |
| Not at All | 5 | 14.7% | 9 | 27.3% | 7 | 25.9% |
| < 1/Yr. | 6 | 17.6% | 7 | 21.2% | 7 | 25.9% |
| 1-2/Yr. | 10 | 29.4% | 11 | 33.3% | 9 | 33.3% |
| 3-11/Yr. | 13 | 38.2% | 6 | 18.2% | 3 | 11.1% |
| Weekly | 0 | | 0 | | 1 | 3.7% |

Note: Honest: N = 34. Fake Good: N = 33. Fake Bad: N = 27.

## Frequency of Personal Devotions

Figure 10 shows the frequency of personal devotions for the sample. Of the sample, 38.3% said they never have devotions at all, while 37.2% said they have devotions less than once per week. Table 6 presents the breakdown of frequency of personal devotions by treatment group.




Note: N = 94

Figure 10. Frequency of Personal Devotions

Table 6

Frequency of Personal Devotions by Treatment

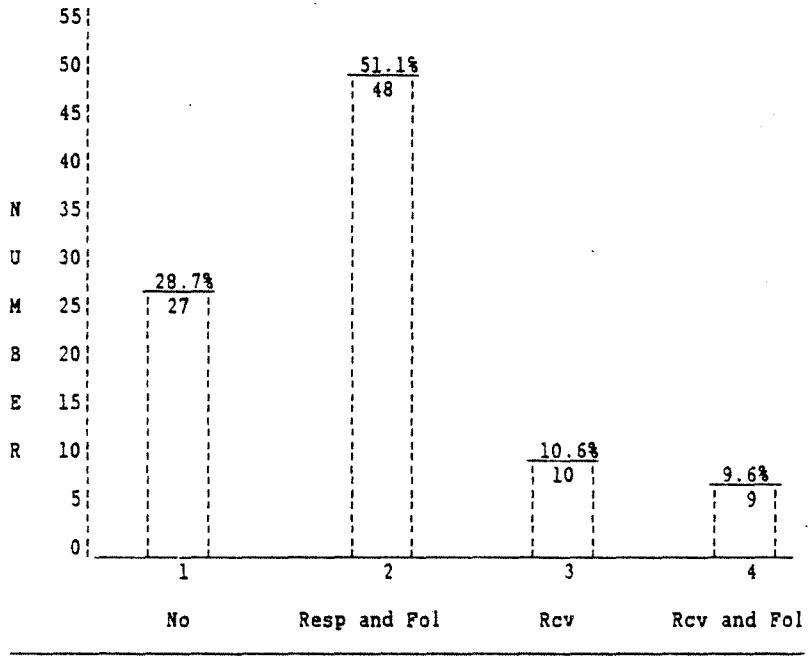
| Category | Honest N | Honest Percent | Fake Good N | Fake Good Percent | Fake Bad N | Fake Bad Percent |
|---|---|---|---|---|---|---|
| Not at All | 14 | 41.2% | 11 | 33.3% | 11 | 40.7% |
| < 1/Wk. | 11 | 32.4% | 14 | 42.4% | 10 | 37.0% |
| Weekly | 3 | 8.8% | 3 | 9.1% | 4 | 14.8% |
| 1-3/Wk. | 2 | 5.9% | 3 | 9.1% | 1 | 3.7% |
| 4-7/Wk. | 3 | 8.8% | 1 | 3.0% | 0 | |
| > 1/Day | 1 | 2.9% | 1 | 3.0% | 1 | 3.7% |

Note: Honest: N = 34. Fake Good: N = 33. Fake Bad: N = 27.

## Christian Profession

Figure 11 shows the number of participants who indicated their response to various statements about belief in Christ and their Christian profession. There were four choices: (1) No, I do not profess to be a Christian, (2) Yes, I respect and attempt to follow the moral and ethical teachings of Christ, (3) Yes, I have received Jesus Christ into my life as my personal Savior and Lord, and (4) Yes, I have received Jesus Christ as my personal Savior and Lord

and I seek to follow the moral and ethical teachings of Christ. Of the sample 51.1% chose option #2. Table 7 presents how these answers broke down for the different treatment groups.




Note: N = 94

Figure 11. Christian Profession

Table 7

Christian Profession by Treatment

| Category | Honest N | Honest Percent | Fake Good N | Fake Good Percent | Fake Bad N | Fake Bad Percent |
|---|---|---|---|---|---|---|
| Non-Christian | 12 | 35.3% | 9 | 27.3% | 6 | 22.2% |
| Respect and Follow | 15 | 44.1% | 19 | 57.6% | 14 | 51.9% |
| Recv'd as Sav/Lord | 4 | 11.8% | 2 | 6.1% | 4 | 14.8% |
| Recv'd and Follow | 3 | 8.8% | 3 | 9.1% | 3 | 11.1% |

## Number of Years Professing Christian

The mean number of years indicated for Christian profession was 15.77 (SD 15.58) with a range of 54 (from 0 to 54 years). Of the participants, 16 gave their age and the number of years being a Christian as the same number. There were 8 other participants who said they had become a Christian at age 3 or less. Table 8 shows how these numbers fell in terms of years professing to be a Christian. Table 9 shows the comparison of means and standard deviations for the entire sample and each treatment group.

Table 8

Number of Years Professing Christian

| Years | N | Percent | Years | N | Percent |
|---|---|---|---|---|---|
| 0 - 5 | 33 | 35.1% | 26 - 30 | 6 | 6.4% |
| 6 - 10 | 8 | 8.6% | 31 - 35 | 4 | 4.3% |
| 11 - 15 | 6 | 6.4% | 36 - 40 | 2 | 2.2% |
| 16 - 20 | 10 | 10.6% | 41 - 45 | 6 | 6.5% |
| 21 - 25 | 7 | 7.4% | 46 - 50 | 4 | 4.3% |

Note: N = 94 There are 8 missing observations, thus the percentages do not add to 100.

Table 9

Number of Years Professing Christian by Treatment

| | Mean | SD | Cases |
|---|---|---|---|
| Total Sample | 15.77 | 15.58 | 86 |
| By Treatment | | | |
| Honest | 17.63 | 18.62 | 30 |
| Fake Good | 15.10 | 13.55 | 32 |
| Fake Bad | 14.13 | 13.80 | 24 |

Note: 8 cases had answered "Yes" to profession as a Christian but had left Years Professing blank.

## Correlations Between RWB, EWB, SWB and Demographics

Within the Honest treatment group, significant correlations were found for nine of 14 variables. The only variable negatively correlated in this treatment group was Social relationships having to do with liking or disliking being alone. This variable correlated only in the Honest treatment group with EWB ($r$ = -.4443; $p \leq .01$), and SWB ($r$ = -.4287; $p \leq .01$). The remaining 8 variables with significant correlations in the Honest treatment group were all positively correlated. Social relationships having to do with

being uncomfortable with or enjoy being with people correlated significantly with RWB ($r$ = .4996; $p \leq .01$), EWB ($r$ = .3514; $p \leq .05$), and SWB ($r$ = .5302; $p \leq .001$). Social relationships having to do with dealing easily with or having problems dealing with people correlated significantly with RWB ($r$ = .3720; $p \leq .05$), and SWB ($r$ = .3955; $p \leq .05$). Importance of religion correlated significantly with RWB ($r$ = .7846; $p \leq .001$), and SWB ($r$ = .6231; $p \leq .001$). Satisfaction with current life correlated significantly with EWB ($r$ = .5652; $p \leq .001$), and SWB ($r$ = .3585; $p \leq .05$). Frequency of church attendance significantly correlated with RWB ($r$ = .4009; $p \leq .01$), and SWB ($r$ = .4448; $p \leq .01$). Frequency of personal devotions correlated significantly with RWB ($r$ = .6139; $p \leq .001$), and SWB ($r$ = .5562; $p \leq .001$). Profession to be a Christian correlated significantly with RWB ($r$ = .5493; $p \leq .001$), and SWB ($r$ = .4654; $p \leq .01$). Years professing to be a Christian correlated significantly with RWB ($r$ = .4535; $p \leq .01$), EWB ($r$ = .4135; $p \leq .01$), and SWB ($r$ = .5320; $p \leq .001$).

In the Fake Good treatment group significant positive correlations were found for 4 of the 14 variables. Importance of religion significantly correlated with RWB ($r$ = .4304; $p \leq .01$), and SWB ($r$ = .3557; $p \leq .05$). Satisfaction with current life correlated significantly with EWB ($r$ = .4056; $p \leq .01$). Profession to be a Christian correlated significantly with RWB ($r$ = .5032; $p \leq$

.001), and SWB ($r$ = .4567; $p \leq .01$). Years professing to be a Christian correlated significantly with EWB ($r$ = .3085; $p \leq .05$).

Within the Fake Bad treatment group only one variable showed significant correlations. Years professing to be a Christian negatively correlated with EWB ($r$ = .3602; $p \leq .05$). See appendix H for a complete table of correlations between RWB, EWB, SWB, and the demographic variables. Tables 10 - 12 present the correlations between treatment group and the demographic variables.

Table 10

Correlations for RWB Under Each Treatment Condition

| | Honest | Fake Good | Fake Bad |
|---|---|---|---|
| AGE | .2588 | .0189 | .1827 |
| ED LVL | .1302 | -.1140 | -.0677 |
| SOC REL ALONE | -.3073 | -.0290 | .2355 |
| SOC REL W/PEOPLE | .4996** | .0706 | -.1801 |
| SOC REL PROB/EASILY | .3720* | .2719 | -.1825 |
| FINANCIAL COND | .1819 | .0301 | -.0825 |
| IMPORT OF RELIGION | .7846*** | .4304** | .2158 |
| SAT W/CURRENT LIFE | .1344 | -.0833 | -.2130 |
| FREQ OF CHURCH ATT | .4009** | .2790 | .2628 |
| FREQ OF PERS DEV | .6139*** | .2072 | .3711 |
| PROFESS AS CHRISTIAN | .5493*** | .5032*** | .3586 |
| YEARS PROFESSING | .4535** | .0725 | .0115 |

Note: $N \geq 24$

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

Table 11

Correlations for EWB Under Each Treatment Condition

| | Honest | Fake Good | Fake Bad |
|---|---|---|---|
| AGE | .0815 | .0619 | -.0992 |
| ED LVL | .2968 | -.1771 | -.0150 |
| SOC REL ALONE | -.4443** | -.0137 | -.0904 |
| SOC REL W/PEOPLE | .3514* | -.0455 | -.2014 |
| SOC REL PROB/EASILY | .2631 | .2979 | -.1156 |
| FINANCIAL COND | .2097 | .1969 | -.2884 |
| IMPORT OF RELIGION | .0948 | .1218 | -.2254 |
| SAT W/CURRENT LIFE | .5652*** | .4056** | -.0591 |
| FREQ OF CHURCH ATT | .3241 | -.1041 | .0343 |
| FREQ OF PERS DEV | .2238 | .1885 | .0439 |
| PROFESS AS CHRISTIAN | .1300 | .2316 | -.0616 |
| YEARS PROFESSING | .4135** | .3085* | -.3602* |

Note: $N \geq 24$

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

Table 12

Correlations for SWB Under Each Treatment Condition

| | Honest | Fake Good | Fake Bad |
|---|---|---|---|
| AGE | .2286 | .0414 | -.1493 |
| ED LVL | .2323 | -.1604 | -.0425 |
| SOC REL ALONE | -.4287** | -.0264 | .0634 |
| SOC REL W/PEOPLE | .5302*** | .0287 | -.2084 |
| SOC REL PROB/EASILY | .3955* | .3238 | -.1589 |
| FINANCIAL COND | .2305 | .1041 | -.2114 |
| IMPORT OF RELIGION | .6231*** | .3557* | -.0262 |
| SAT W/CURRENT LIFE | .3585* | .1276 | -.1406 |
| FREQ OF CHURCH ATT | .4448** | .1470 | .1506 |
| FREQ OF PERS DEV | .5562*** | .2305 | .2101 |
| PROFESS AS CHRISTIAN | .4654** | .4567** | .1415 |
| YEARS PROFESSING | .5320*** | .1923 | -.2072 |

Note: $N \geq 24$

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

## Results of Faking Instructions

### Results for RWB, EWB, and SWB

An analysis of variance, with significance level set at .05, was performed on each of the dependent measures (RWB, EWB, and SWB). The null hypothesis that there would be no significant difference among the means of the three treatment groups for RWB, EWB, and SWB was rejected. A significant treatment effect was found on all three measures. The *F* statistic for each measure was substantial.

A Scheffe' post hoc test was performed on each treatment group. Post hoc tests confirmed significant differences between all three treatments on RWB and SWB. Fake Good and Honest treatment groups were the only groups not significantly different on EWB. Tables 13, 14 and 15 summarize the results of ANOVA's and post hoc tests for RWB, EWB, and SWB.

Table 13

Summary Data and One-way ANOVA for RWB by Treatment

| | Honest | Fake Good | Fake Bad |
|---|---|---|---|
| *n*: | 34 | 33 | 27 |
| *M*: | 35.26 | 45.88 | 22.59 |
| *SD*: | 14.92 | 10.55 | 13.55 |

| Source | df | SS | MS | F | F Prob. |
|---|---|---|---|---|---|
| Between Groups | 2 | 8053. | 4026. | 23 | $p < .001$ |
| Within Groups | 91 | 15675. | 172. | | |
| Total | 93 | 23727. | | | |

Note: Scheffe' Post Hoc: Critical Value: 9.2803

RWB significantly different in all three Treatment Groups.

Table 14

Summary Data and One-way ANOVA for EWB by Treatment

| | Honest | Fake Good | Fake Bad |
|---|---|---|---|
| n: | 34 | 33 | 27 |
| M: | 46.76 | 49.36 | 28.37 |
| SD: | 9.26 | 6.90 | 16.15 |

| Source | df | SS | MS | F | F Prob. |
|---|---|---|---|---|---|
| Between Groups | 2 | 7562. | 3781. | 31. | $p < .001$ |
| Within Groups | 91 | 11136. | 122. | | |
| Total | 93 | 18698. | | | |

Note: Scheffe' Post Hoc: Critical Value: 7.8222

EWB significantly different between Fake Bad and Fake Good; and between Fake Bad and Honest.

Table 15

Summary Data and One-way ANOVA for SWB by Treatment

| | Honest | Fake Good | Fake Bad |
|---|---|---|---|
| n: | 34 | 33 | 27 |
| M: | 82.03 | 95.24 | 50.96 |
| SD: | 20.19 | 15.12 | 27.31 |

| Source | df | SS | MS | F | F Prob. |
|---|---|---|---|---|---|
| Between Groups | 2 | 30093. | 15047. | 34. | $p < .001$ |
| Within Groups | 91 | 40164. | 441. | | |
| Total | 93 | 70258. | | | |

Note: Scheffe' Post Hoc: Critical Value: 14.8553

SWB significantly different between all three Treatment Groups.

## Results for SWB Items

In addition to the SWB subscale and summary score ANOVA's reported above, Tables 16 and 17 present the results of an ANOVA for individual SWB items by treatment. The results show a powerful treatment effect for each item.

Table 16

ANOVAs for Mean RWB Item Scores by Treatment

| | Means | | | F - Value |
|---|---|---|---|---|
| | Honest | Fake Good | Fake Bad | Treatment Effect |
| SWB 1 | 3.53 | 4.76 | 1.96 | 28.45*** |
| SWB 3 | 3.94 | 5.15 | 2.59 | 19.03*** |
| SWB 5 | 3.91 | 4.88 | 2.56 | 14.92*** |
| S | | | | 20.76*** |
| S | | | | 17.23*** |
| S | | | | 12.50*** |
| SI | | | | 16.08*** |
| SI | | | | 11.30*** |
| SI | | | | 20.09*** |
| SI | | | | 16.97*** |
| — | | | | |
| ** | | | | |

Table 17

ANOVAs for Mean EWB Item Scores by Treatment

| | Means | | | F - Value |
|---|---|---|---|---|
| | Honest | Fake Good | Fake Bad | Treatment Effect |
| SWB 2 | 4.74 | 4.88 | 2.52 | 19.91*** |
| SWB 4 | 4.98 | 5.30 | 3.07 | 19.02*** |
| SWB 6 | 3.94 | 4.18 | 2.44 | 11.91*** |
| SWB 8 | 4.24 | 4.55 | 2.52 | 17.50*** |
| SWB 10 | 4.68 | 4.67 | 2.89 | 17.03*** |
| SWB 12 | 5.03 | 5.52 | 2.93 | 25.56*** |
| SWB 14 | 4.94 | 4.94 | 2.96 | 20.05*** |
| SWB 16 | 4.38 | 4.39 | 2.74 | 10.75*** |
| SWB 18 | 4.97 | 5.48 | 3.11 | 21.65*** |
| SWB 20 | 4.88 | 5.46 | 3.19 | 18.79*** |

*** $p \leq .001$

Post hoc tests confirm significant differences between the Honest, Fake Good, and Fake Bad treatment groups for six SWB items, and between the Honest and Fake Bad treatment groups on one SWB item. Significant differences for the remaining items (13) were confirmed between the Fake Bad treatment group, and the Honest and Fake Good treatment groups but not between the Honest and Fake good treatment groups. Tables 18 - 37 summarize the results of ANOVA's and post hoc tests for SWB items.

Table 18

Summary Data and One-way ANOVA for SWB Item 1 by Treatment

| | Honest | Fake Good | Fake Bad |
|---|---|---|---|
| n: | 34 | 33 | 27 |
| M: | 3.53 | 4.76 | 1.96 |
| SD: | 1.69 | 1.15 | 1.37 |

| Source | df | SS | MS | F | F Prob. |
|---|---|---|---|---|---|
| Between Groups | 2 | 116.00 | 58.00 | 28. | $p < .001$ |
| Within Groups | 91 | 185.50 | 2.04 | | |
| Total | 93 | 301.49 | | | |

Note: Scheffe' Post Hoc: Critical Value: 1.0096

SWB Item 1 significantly different between all three Treatment Groups.

Table 19

Summary Data and One-way ANOVA for SWB Item 2 by Treatment

| | Honest | Fake Good | Fake Bad |
|---|---|---|---|
| n: | 34 | 33 | 27 |
| M: | 4.74 | 4.88 | 2.52 |
| SD: | 1.48 | 1.41 | 1.91 |

| Source | df | SS | MS | F | F Prob. |
|---|---|---|---|---|---|
| Between Groups | 2 | 101.04 | 50.52 | 20. | $p < .001$ |
| Within Groups | 91 | 230.87 | 2.54 | | |
| Total | 93 | 331.92 | | | |

Note: Scheffe' Post Hoc: Critical Value: 1.1263

SWB Item 2 significantly different between Fake Bad, and the Honest and Fake Good treatment groups.

Table 20

Summary Data and One-way ANOVA for SWB Item 3 by Treatment

| | Honest | Fake Good | Fake Bad |
|---|---|---|---|
| *n*: | 34 | 33 | 27 |
| *M*: | 3.94 | 5.15 | 2.59 |
| *SD*: | 1.76 | 1.03 | 1.93 |

| Source | df | SS | MS | F | F Prob. |
|---|---|---|---|---|---|
| Between Groups | 2 | 97.31 | 48.66 | 19. | $p < .001$ |
| Within Groups | 91 | 232.64 | 2.56 | | |
| Total | 93 | 329.96 | | | |

Note: Scheffe' Post Hoc: Critical Value: 1.1306

SWB Item 3 significantly different between all three Treatment Groups.

Table 21

Summary Data and One-way ANOVA for SWB Item 4 by Treatment

| | Honest | Fake Good | Fake Bad |
|---|---|---|---|
| *n*: | 34 | 33 | 27 |
| *M*: | 4.97 | 5.30 | 3.07 |
| *SD*: | 1.29 | 2.15 | .88 |

| Source | df | SS | MS | F | F Prob. |
|---|---|---|---|---|---|
| Between Groups | 2 | 83.54 | 41.77 | 19. | $p < .001$ |
| Within Groups | 91 | 199.79 | 2.20 | | |
| Total | 93 | 283.33 | | | |

Note: Scheffe' Post Hoc: Critical Value: 1.0477

SWB Item 4 significantly different between Fake Bad, and the Honest and Fake Good treatment groups.

Table 22

Summary Data and One-way ANOVA for SWB Item 5 by Treatment

| | Honest | Fake Good | Fake Bad |
|---|---|---|---|
| n: | 34 | 33 | 27 |
| M: | 3.91 | 4.88 | 2.56 |
| SD: | 1.71 | 1.19 | 1.98 |

| Source | df | SS | MS | F | F Prob. |
|---|---|---|---|---|---|
| Between Groups | 2 | 80.29 | 40.14 | 15. | $p < .001$ |
| Within Groups | 91 | 244.92 | 2.69 | | |
| Total | 93 | 325.20 | | | |

Note: Scheffe' Post Hoc: Critical Value: 1.1600

SWB Item 5 significantly different between Fake Bad, and the Honest and Fake Good treatment groups.

Table 23

Summary Data and One-way ANOVA for SWB Item 6 by Treatment

| | Honest | Fake Good | Fake Bad |
|---|---|---|---|
| n: | 34 | 33 | 27 |
| M: | 3.94 | 4.18 | 2.44 |
| SD: | 1.35 | 1.42 | 1.65 |

| Source | df | SS | MS | F | F Prob. |
|---|---|---|---|---|---|
| Between Groups | 2 | 51.18 | 25.60 | 12. | $p < .001$ |
| Within Groups | 91 | 195.46 | 2.15 | | |
| Total | 93 | 246.64 | | | |

Note: Scheffe' Post Hoc: Critical Value: 1.0363

SWB Item 6 significantly different between Fake Bad, and the Honest and Fake Good treatment groups.

Table 24

Summary Data and One-way ANOVA for SWB Item 7 by Treatment

| | Honest | Fake Good | Fake Bad |
|---|---|---|---|
| *n*: | 34 | 33 | 27 |
| *M*: | 3.26 | 4.58 | 2.15 |
| *SD*: | 1.46 | 1.39 | 1.54 |

| Source | *df* | *SS* | *MS* | *F* | *F* Prob. |
|---|---|---|---|---|---|
| Between Groups | 2 | 88.55 | 44.28 | 21. | $p < .001$ |
| Within Groups | 91 | 194.09 | 2.13 | | |
| Total | 93 | 282.64 | | | |

Note: Scheffe' Post Hoc: Critical Value: 1.0327

SWB Item 7 significantly different between all three treatment groups.

Table 25

Summary Data and One-way ANOVA for SWB Item 8 by Treatment

| | Honest | Fake Good | Fake Bad |
|---|---|---|---|
| n: | 34 | 33 | 27 |
| M: | 4.24 | 4.55 | 2.52 |
| SD: | 1.35 | 1.33 | 1.55 |

| Source | df | SS | MS | F | F Prob. |
|---|---|---|---|---|---|
| Between Groups | 2 | 68.87 | 34.44 | 18. | p < .001 |
| Within Groups | 91 | 179.04 | 1.97 | | |
| Total | 93 | 247.92 | | | |

Note: Scheffe' Post Hoc: Critical Value: .9918

SWB Item 8 significantly different between Fake Bad, and the Honest and Fake Good treatment groups.

Table 26

Summary Data and One-way ANOVA for SWB Item 9 by Treatment

| | Honest | Fake Good | Fake Bad |
|---|---|---|---|
| n: | 34 | 33 | 27 |
| M: | 3.44 | 4.45 | 2.07 |
| SD: | 1.71 | 1.46 | 1.49 |

| Source | df | SS | MS | F | F Prob. |
|---|---|---|---|---|---|
| Between Groups | 2 | 84.22 | 42.11 | 17. | p < .001 |
| Within Groups | 91 | 222.42 | 2.44 | | |
| Total | 93 | 306.64 | | | |

Note: Scheffe' Post Hoc: Critical Value: 1.1055

SWB Item 9 significantly different between all three treatment groups.

Table 27

Summary Data and One-way ANOVA for SWB Item 10 by Treatment

| | Honest | Fake Good | Fake Bad |
|---|---|---|---|
| *n*: | 34 | 33 | 27 |
| *M*: | 4.68 | 4.66 | 2.89 |
| *SD*: | 1.09 | 1.19 | 1.74 |

| Source | df | SS | MS | F | F Prob. |
|---|---|---|---|---|---|
| Between Groups | 2 | 61.17 | 30.58 | 17. | $p < .001$ |
| Within Groups | 91 | 163.44 | 1.80 | | |
| Total | 93 | 224.61 | | | |

Note: Scheffe' Post Hoc: Critical Value: .9476

SWB Item 10 significantly different between Fake Bad, and the Honest and Fake Good treatment groups.

Table 28

Summary Data and One-way ANOVA for SWB Item 11 by Treatment

| | Honest | Fake Good | Fake Bad |
|---|---|---|---|
| n: | 34 | 33 | 27 |
| M: | 3.68 | 4.45 | 2.41 |
| SD: | 1.68 | 1.33 | 1.74 |

| Source | df | SS | MS | F | F Prob. |
|---|---|---|---|---|---|
| Between Groups | 2 | 62.68 | 31.34 | 13. | p < .001 |
| Within Groups | 91 | 228.14 | 2.51 | | |
| Total | 93 | 290.82 | | | |

Note: Scheffe' Post Hoc: Critical Value: 1.1196

SWB Item 11 significantly different between Fake Bad, and the Honest and Fake Good treatment groups.

Table 29

Summary Data and One-way ANOVA for SWB Item 12 by Treatment

| | Honest | Fake Good | Fake Bad |
|---|---|---|---|
| n: | 34 | 33 | 27 |
| M: | 5.03 | 5.52 | 2.93 |
| SD: | 1.11 | .91 | 2.21 |

| Source | df | SS | MS | F | F Prob. |
|---|---|---|---|---|---|
| Between Groups | 2 | 109.57 | 54.79 | 26. | $p < .001$ |
| Within Groups | 91 | 195.06 | 2.14 | | |
| Total | 93 | 304.64 | | | |

Note: Scheffe' Post Hoc: Critical Value: 1.0354

SWB Item 12 significantly different between Fake Bad, and the Honest and Fake Good treatment groups.

Table 30

Summary Data and One-way ANOVA for SWB Item 13 by Treatment

| | Honest | Fake Good | Fake Bad |
|---|---|---|---|
| n: | 34 | 33 | 27 |
| M: | 3.50 | 4.36 | 2.07 |
| SD: | 1.62 | 1.56 | 1.49 |

| Source | df | SS | MS | F | F Prob. |
|---|---|---|---|---|---|
| Between Groups | 2 | 78.45 | 39.22 | 16. | p < .001 |
| Within Groups | 91 | 221.99 | 2.44 | | |
| Total | 93 | 300.44 | | | |

Note: Scheffe' Post Hoc: Critical Value: 1.1044

SWB Item 13 significantly different between Fake Bad, and the Honest and Fake Good treatment groups.

Table 31

Summary Data and One-way ANOVA for SWB Item 14 by Treatment

| | Honest | Fake Good | Fake Bad |
|---|---|---|---|
| *n*: | 34 | 33 | 27 |
| *M*: | 4.94 | 4.94 | 2.96 |
| *SD*: | 1.04 | 1.17 | 1.87 |

| Source | df | SS | MS | F | F Prob. |
|---|---|---|---|---|---|
| Between Groups | 2 | 75.24 | 37.62 | 20. | $p < .001$ |
| Within Groups | 91 | 170.72 | 1.88 | | |
| Total | 93 | 245.97 | | | |

Note: Scheffe' Post Hoc: Critical Value: .9685

SWB Item 14 significantly different between Fake Bad, and the Honest and Fake Good treatment groups.

Table 32

Summary Data and One-way ANOVA for SWB Item 15 by Treatment

| | Honest | Fake Good | Fake Bad |
|---|---|---|---|
| n: | 34 | 33 | 27 |
| M: | 3.09 | 4.30 | 2.41 |
| SD: | 1.54 | 1.53 | 1.67 |

| Source | df | SS | MS | F | F Prob. |
|---|---|---|---|---|---|
| Between Groups | 2 | 56.20 | 28.10 | 11. | p < .001 |
| Within Groups | 91 | 226.22 | 2.49 | | |
| Total | 93 | 282.43 | | | |

Note: Scheffe' Post Hoc: Critical Value: 1.1149

SWB Item 15 significantly different between all three treatment groups except between Honest and Fake Bad.

Table 33

Summary Data and One-way ANOVA for SWB Item 16 by Treatment

| | Honest | Fake Good | Fake Bad |
|---|---|---|---|
| n: | 34 | 33 | 27 |
| M: | 4.39 | 4.39 | 2.74 |
| SD: | 1.39 | 1.60 | 1.70 |

| Source | df | SS | MS | F | F Prob. |
|---|---|---|---|---|---|
| Between Groups | 2 | 52.23 | 26.11 | 11. | $p < .001$ |
| Within Groups | 91 | 221.09 | 2.43 | | |
| Total | 93 | 273.32 | | | |

Note: Scheffe' Post Hoc: Critical Value: 1.1022

SWB Item 16 significantly different between Fake Bad, and the Honest and Fake Good treatment groups.

Table 34

Summary Data and One-way ANOVA for SWB Item 17 by Treatment

| | Honest | Fake Good | Fake Bad |
|---|---|---|---|
| *n*: | 34 | 33 | 27 |
| *M*: | 3.32 | 4.36 | 2.04 |
| *SD*: | 1.22 | 1.61 | 1.37 |

| Source | df | SS | MS | F | F Prob. |
|---|---|---|---|---|---|
| Between Groups | 2 | 80.39 | 40.19 | 20. | $p < .001$ |
| Within Groups | 91 | 182.04 | 2.00 | | |
| Total | 93 | 262.43 | | | |

Note: Scheffe' Post Hoc: Critical Value: 1.0001

SWB Item 17 significantly different between all three treatment groups.

Table 35

Summary Data and One-way ANOVA for SWB Item 18 by Treatment

| | Honest | Fake Good | Fake Bad |
|---|---|---|---|
| n: | 34 | 33 | 27 |
| M: | 4.97 | 5.48 | 3.11 |
| SD: | 1.27 | .76 | 2.14 |

| Source | df | SS | MS | F | F Prob. |
|---|---|---|---|---|---|
| Between Groups | 2 | 90.33 | 45.17 | 22. | $p < .001$ |
| Within Groups | 91 | 189.88 | 2.09 | | |
| Total | 93 | 280.21 | | | |

Note: Scheffe' Post Hoc: Critical Value: 1.0214

SWB Item 18 significantly different between Fake Bad, and the Honest and Fake Good treatment groups.

Table 36

Summary Data and One-way ANOVA for SWB Item 19 by Treatment

| | Honest | Fake Good | Fake Bad |
|---|---|---|---|
| n: | 34 | 33 | 27 |
| M: | 3.59 | 4.58 | 2.33 |
| SD: | 1.60 | 1.32 | 1.52 |

| Source | df | SS | MS | F | F Prob. |
|---|---|---|---|---|---|
| Between Groups | 2 | 74.68 | 37.34 | 17. | $p < .001$ |
| Within Groups | 91 | 200.30 | 2.20 | | |
| Total | 93 | 274.98 | | | |

Note: Scheffe' Post Hoc: Critical Value: 1.0491

SWB Item 19 significantly different between all three treatment groups.

Table 37

Summary Data and One-way ANOVA for SWB Item 20 by Treatment

| | Honest | Fake Good | Fake Bad |
|---|---|---|---|
| n: | 34 | 33 | 27 |
| M: | 4.88 | 5.45 | 3.19 |
| SD: | 1.32 | .71 | 2.17 |

| Source | df | SS | MS | F | F Prob. |
|---|---|---|---|---|---|
| Between Groups | 2 | 80.85 | 40.43 | 19. | $p < .001$ |
| Within Groups | 91 | 195.79 | 2.15 | | |
| Total | 93 | 276.64 | | | |

Note: Scheffe' Post Hoc: Critical Value: 1.0372

SWB Item 20 significantly different between Fake Bad, and the Honest and Fake Good treatment groups.

## Frequencies, Ranges, Medians, and Modes for RWB, EWB, and SWB Scores

Concerns regarding ceiling effects with the SWB scale as implicated by previous research was presented in Chapter 1. If ceiling effects are present range suppression for Honest and Fake Good treatment groups should be evident. Score range for SWB among the Honest and Fake Bad treatment groups was similar, 73 and 76 respectively. Range for the Fake Good treatment group on SWB was 48. The median score for the Honest group was: RWB = 35, EWB = 46, SWB 82. The mode for the Honest group was: RWB = 10, EWB = 46, SWB = 76. Tables 38 - 40 present information regarding range and percent of RWB, EWB, and SWB scores by treatment. Tables 41 and 42 summarize the range of each treatment group by showing sample size, mean, median, mode, range, minimum, maximum and frequency of scores on RWB, EWB, and SWB for each treatment group.

Table 38

Frequency and Percent of RWB Score Ranges by Treatment

| | Honest | | Fake Good | | Fake Bad | |
|---|---|---|---|---|---|---|
| | Freq | Percent | Freq | Percent | Freq | Percent |
| Score | | | | | | |
| 10 - 14 | 4 | 11.8% | 0 | | 12 | 44.4% |
| 15 - 19 | 3 | 8.7% | 0 | | 2 | 7.5% |
| 20 - 24 | 2 | 5.9% | 1 | 3.0% | 1 | 3.7% |
| 25 - 29 | 2 | 5.9% | 0 | | 4 | 14.8% |
| 30 - 34 | 4 | 11.8% | 7 | 21.2% | 2 | 7.4% |
| 35 - 39 | 5 | 14.7% | 2 | 6.1% | 3 | 11.1% |
| 40 - 44 | 4 | 11.8% | 3 | 9.1% | 0 | |
| 45 - 49 | 4 | 11.8% | 6 | 18.2% | 2 | 7.4% |
| 50 - 54 | 3 | 8.8% | 4 | 12.1% | 1 | 3.7% |
| 55 - 60 | 3 | 8.8% | 10 | 30.3% | 0 | |

Note: N = Honest - 34, Fake Good - 33, Fake Bad - 27

Table 39

Frequency and Percent of EWB Score Ranges by Treatment

| | Honest | | Fake Good | | Fake Bad | |
|---|---|---|---|---|---|---|
| | Freq | Percent | Freq | Percent | Freq | Percent |
| Score | | | | | | |
| 10 - 14 | 0 | | 0 | | 7 | 25.9% |
| 15 - 19 | 0 | | 0 | | 5 | 18.5% |
| 20 - 24 | 0 | | 0 | | 1 | 3.7% |
| 25 - 29 | 2 | 5.8% | 0 | | 3 | 11.2% |
| 30 - 34 | 2 | 5.9% | 0 | | 0 | |
| 35 - 39 | 4 | 11.8% | 3 | 9.1% | 1 | 3.7% |
| 40 - 44 | 5 | 14.7% | 6 | 18.2% | 4 | 14.8% |
| 45 - 49 | 7 | 20.6% | 6 | 18.2% | 3 | 11.1% |
| 50 - 54 | 5 | 14.7% | 7 | 21.2% | 3 | 11.1% |
| 55 - 60 | 9 | 26.5% | 11 | 33.3% | 0 | |

Note: N = Honest - 34, Fake Good - 33, Fake Bad - 27

Table 40

Frequency and Percent of SWB Score Ranges by Treatment

| | Honest | | Fake Good | | Fake Bad | |
|---|---|---|---|---|---|---|
| | Freq | Percent | Freq | Percent | Freq | Percent |
| Score | | | | | | |
| 20 - 24 | 0 | | 0 | | 5 | 18.5% |
| 25 - 29 | 0 | | 0 | | 6 | 22.2% |
| 30 - 34 | 0 | | 0 | | 0 | |
| 35 - 39 | 0 | | 0 | | 2 | 7.4% |
| 40 - 44 | 1 | 2.9% | 0 | | 0 | |
| 45 - 49 | 2 | 5.8% | 0 | | 0 | |
| 50 - 54 | 1 | 3.0% | 0 | | 2 | 7.5% |
| 55 - 59 | 1 | 3.0% | 0 | | 1 | 3.7% |
| 60 - 64 | 2 | 5.9% | 0 | | 0 | |
| 65 - 69 | 2 | 5.8% | 0 | | 2 | 7.4% |

(table continues)

Table 40 (continued)

Frequency and Percent of SWB Score Ranges by Treatment

| | Honest | | Fake Good | | Fake Bad | |
|---|---|---|---|---|---|---|
| | Freq | Percent | Freq | Percent | Freq | Percent |
| Score | | | | | | |
| 70 - 74 | 2 | 5.9% | 5 | 15.2% | 0 | |
| 75 - 79 | 5 | 14.7% | 0 | | 3 | 11.1% |
| 80 - 84 | 3 | 8.8% | 4 | 12.1% | 2 | 7.4% |
| 85 - 89 | 3 | 8.9% | 3 | 9.0% | 2 | 7.4% |
| 90 - 94 | 1 | 3.0% | 4 | 12.2% | 1 | 3.7% |
| 95 - 99 | 4 | 11.8% | 4 | 12.2% | 1 | 3.7% |
| 100-104 | 3 | 8.8% | 2 | 6.0% | 0 | |
| 105-109 | 1 | 3.0% | 3 | 9.0% | 0 | |
| 110-114 | 1 | 2.9% | 4 | 12.1% | 0 | |
| 115-120 | 2 | 5.8% | 4 | 12.2% | 0 | |

Note: N = Honest - 34, Fake Good - 33, Fake Bad - 27

Table 41

Range and Minimum to Maximum Scores for RWB and EWB

| | Honest | Fake Good | Fake Bad |
|---|---|---|---|
| RWB | | | |
| N | 34 | 33 | 27 |
| Mean | 35.26 | 45.88 | 22.59 |
| Median | 35 | 47.5 | 14.5 |
| Mode | 10 | 59 | 10 |
| Range | 50 | 33 | 40 |
| Min - Max | 10 - 60 | 26 - 59 | 10 - 50 |
| n Scoring Min | 3 | 1 | 8 |
| n Scoring Max | 1 | 4 | 1 |
| EWB | | | |
| N | 34 | 33 | 27 |
| Mean | 46.76 | 49.36 | 28.37 |
| Median | 46 | 50.5 | 21.5 |
| Mode | 46 | 55 | 10 |
| Range | 34 | 25 | 43 |
| Min - Max | 26 - 60 | 35 - 60 | 10 - 53 |
| n Scoring Min | 1 | 1 | 6 |
| n Scoring Max | 2 | 1 | 1 |

Table 42

Range and Minimum to Maximum Scores for SWB

| | Honest | Fake Good | Fake Bad |
|---|---|---|---|
| SWB | | | |
| N | 34 | 33 | 27 |
| Mean | 82.03 | 95.24 | 50.96 |
| Median | 82 | 96.5 | 39.5 |
| Mode | 76 | 98 | 20 |
| Range | 73 | 48 | 76 |
| Min - Max | 43 - 119 | 71 - 119 | 20 - 96 |
| n Scoring Min | 1 | 1 | 4 |
| n Scoring Max | 1 | 1 | 1 |

Similarities and differences between treatment groups on RWB, EWB, and SWB are evidenced by the patterns on tables 38 - 40. For each score, it's frequency and the percent of participants receiving that score, see Appendix I.

The minimum and maximum scores (range) between the Honest and Fake Good treatment groups varied. For RWB, the Honest group

scored from a minimum score of 10 to a maximum score of 60 for a range of 50. The Fake Good group scored from a minimum of 26 to a maximum of 60, a range of 33, 17 points less than the Honest group range. The Fake Bad group minimum was 10 with a maximum score of 50, for a range of 40 points.

For EWB, the Honest group scored from a minimum score of 26 to a maximum score of 60 for a range of 34. The Fake Good group scored from a minimum of 35 to a maximum of 60 for a range of 25, 11 points less than the Honest group range. The Fake Bad group minimum was 10 with a maximum of 53, for a range of 43.

For SWB, the Honest group scored from a minimum score of 43 to a maximum score of 119 for a range of 73. The Fake Good group scored from a minimum of 71 to a maximum of 119 for a range of 48, 25 points less than the Honest group range. The Fake Bad treatment group scored minimum to maximum scores similar to the Honest group. The Fake Bad group minimum score was 20, the maximum score 96, for a range of 76. The SWB score range for the Fake Bad group is just 3 points greater than that of the Honest group.

## Summary

The first item of note is that this sample contributed new data to the growing research data available on the Spiritual

Well-Being Scale. Descriptive data were presented for a part-time military sample: two units of the Oregon Air National Guard.

ANOVA's revealed a significant effect of faking on RWB, EWB, and SWB in this sample. Scheffe' post hoc testing showed a substantial difference between all three (Honest, Fake Good, and Fake Bad) treatment groups on RWB and SWB. While the Honest and Fake Good treatment groups did not significantly differ from each other on EWB, a substantial difference was found for the Fake Bad treatment group.

An ANOVA and Scheffe' post hoc test was also performed for each item of the SWB scale. Results showed a treatment effect on every item of both the RWB and EWB subscales significantly at the $p \leq .001$ level. With one exception, seven RWB item means were significantly different between all three treatment groups, the exception being an item significantly different between Fake Good and Honest, Fake Good and Fake Bad, but not between Honest and Fake Bad. The balance of the SWB items (13) were found significantly different between the Fake Bad and Fake Good treatment groups, but not between the Honest and Fake Good treatment groups.

Significant correlations were found for SWB and various religious and demographic variables in the Honest treatment group. SWB and both subscales, RWB and EWB, were positively correlated with comfort being with people, and years professing to be a Christian. SWB and its subscale RWB were positively correlated

with frequency of church attendance, frequency of personal devotions, Christian profession, importance of religion, and dealing easily with people. SWB and its subscale EWB were negatively correlated with preference to be alone. The SWB subscale EWB was positively correlated with satisfaction with current life.

Within the Fake Good treatment group, SWB and its subscale RWB were positively correlated with Christian profession, and importance of religion. The subscale EWB was positively correlated with satisfaction with current life, and years professing to be a Christian.

One significant correlation was found in the Fake Bad group. Years professing to be a Christian negatively correlated with the subscale EWB.

Ranges for the treatment groups were consistent in that the Fake Good group had a smaller range and higher scores than the Honest and Fake Bad groups. The Honest group, in turn had a similar range but higher scores than the Fake Bad group.

# CHAPTER 4

## DISCUSSION

A review of the literature yielded some relatively concise definitions for social desirability and faking. Both terms fall under the general category of response bias, to which self-report instruments such as the SWB scale are particularly vulnerable.

For this study, social desirability was defined as an unconscious desire to be seen in a positive or negative light depending upon the circumstances. Faking was defined as a deliberate conscious attempt to create an impression on a test. Extreme scores may be due to honest reporting, faking, social desirability, or some other response bias such as guessing.

In an initial step to research response bias, the SWB scale was recently examined for vulnerability to faking. That study done at WCBS found inconclusive results on whether the scale could be faked in a positive direction among a sample of Christians. The results did indicate the scale can be faked negatively. It had not been

determined if non-Christians, or in the present case, religiously inactive persons could fake on the SWB.

ANOVA's revealed a significant main effect of faking on RWB, EWB, and SWB in this sample. Also revealed was a significant effect on seven SWB items for all treatment groups, and significant effects on the remaining items between the Honest and Fake Bad treatment groups. Significant correlations were found for nine of the 14 demographic variables within the Honest treatment group, 4 of the 14 variables within the Fake Good treatment group, and one of the 14 variables within the Fake Bad treatment group.

This chapter includes discussion, evaluation, and an interpretation of the results of the study. Sections presented include: (a) limitations of the study; (b) a discussion of descriptive statistics for demographic and religious variables; (c) correlations between RWB, EWB, SWB, and the demographic and religious variables; (d) examination of the effects of faking instructions; (e) implications for use of the SWB scale; (f) implications for future research; and (g) a summary.

## Limitations

Limitations of the study already identified: (a) A military population skews toward political conservatism; (b) A voluntary sample eliminates those who do not want to participate,

however, participation alone suggests a degree of acquiescence, thus this sample may have been more inclined to follow the faking instructions. (c) Some participants found the "Fake Bad" instructions confusing. The wording, "against your will for a job as a Pastor..." seemed to suggest a double negative to a limited number of participants so that responses to the SWB were opposite of the instructions. Of the participants asking for clarification of the instructions, most had interpreted the instructions correctly, but needed reassurance. Four persons answered in a direction somewhat opposite to the instructions. It may be they misunderstood the instructions, or responded purposely oppositionally. These cases did not significantly change the results of the analysis and were not excluded. (d) Although defining parameters for being religiously active or inactive can be seen as a tenuous and arbitrary task, adequate justification for parameters was presented in Chapter Two. Religious activity or inactivity may be viewed as somewhat analogous to being a "Christian" or "Non-Christian". (e) This sample is not readily generalizable to other groups, even the Air National Guard, because the units studied were not randomly selected. This limitation is relatively unimportant, however, because the nature of this study was to examine validity of the SWB scale rather than attempt to infer meaning regarding the Air National Guard.

## Demographics

Participants in this study were from two Oregon Air National Guard units stationed in the greater Portland, Oregon area, and were randomly assigned to three treatment conditions. The participants were separated categorically as religiously inactive or religiously active according to endorsement of two background questionnaire items. Those items were frequency of church attendance and frequency of personal devotions. Of the 151 returned questionnaires, 8 had to be discarded because items of Spiritual Well-Being Scale were omitted. Of the 143 remaining cases, 94 qualified as religiously inactive. Those 94 cases are the only ones analyzed and discussed.

The mean SWB score for the sample was 82.03 (Honest treatment group, $\underline{n}$ = 34), which is closest to the mean of Unitarians, 82.81 (Bufford, Bently, Newenhouse, & Papania, 1996). Other samples with mean scores close to this one are: Samples of eating disorder outpatients, 80.36 (Sherman, 1986); chronic pain patients, 85.34 (Campbell, 1983); and sexually abused women, 85.90 (Rodriguez, 1988). This current sample mean adds to the SWB data describing a religiously inactive sample of part-time military personnel.

## Age

The mean age for the sample was 33.17 with a range from 19 to 54 years old. Significant correlations were not found between age and SWB or its subscale scores. This finding is not surprising, in that SWB scores and age have not been associated in the majority of past studies. Just three studies reported a relationship between age and RWB, EWB, or SWB scores (Bufford, 1984; Hawkins & Larson, 1984; Jang, 1986).

## Gender

Although analysis was not performed on gender, it is reported as descriptive of the sample. There have been no studies reporting significant correlations between gender and SWB (Moody, 1988). This sample consisted of a wide variance in gender. Only 15% sample were female, while 84% were male. This disparity was similarly reflected in each treatment group. The ratio of males to females within many of the Oregon Air National Guard is similar.

## Education

Every participant in the sample had at least a high school diploma or G.E.D. (required for entry into the Air National Guard). Mean years of education was 2.8 years of college. Less than 20% had a four year degree or graduate studies and 30% of the sample

had only the high school diploma or G.E.D. Previous studies have not found education to be correlated with SWB (Moody, 1988).

## Marital Status

The largest group in the sample were married (41.5%) and the next largest had never been married (31%). It was interesting that no participant described themselves as widowed, separated, or widowed and remarried. Having personally experienced 14 years of military service involvement, the author questions the likelihood of not one participant being currently separated from a spouse. There is also high probability that at least one participant had been widowed. It seems likely that those persons who might best fit into the widowed and remarried category, endorsed the married category without looking further down the questionnaire. Marital status was relatively similarly distributed in each treatment group. No significant correlations were found between marital status and SWB scores in this sample. Others (Mashburn, 1986; Quinn, 1984; and Upshaw, 1984) have reported marital status correlations among Christian couples and non-Christian couples.

## Social Relationships

Three questions regarding social relationships were asked. Each question was answered by one of six options on a likert scale.

The first question assessed dislike of being alone to preference for being alone. Of the sample, 52.1% rated themselves in the bottom three categories, meaning they disliked being alone. The other 45.7% rated themselves in the top three categories, preferring to be alone. The two middle categories contained 46.8% of the sample. In the Honest treatment group this item correlated significantly in a negative direction with EWB ($r$ = -.4443; $p \leq$ .01), and SWB ($r$ = -.4287; $p \leq .01$), suggesting preference for being alone is negatively related to EWB and SWB. It should be noted that this variable is not in contrast to being with people. It is only a measure of enjoyment or dislike of being alone. The second social relationship question had to do with being uncomfortable or comfortable with people. In terms of being comfortable with people, 36.2% rated themselves in the highest category, indicating comfort with people, while 22.3% rating themselves in the lowest category, indicating discomfort with people. Most notable is that 76.7% placed themselves in the top three categories. This variable had positive correlations for the Honest treatment group with RWB ($r$ = .4996; $p \leq .01$), EWB ($r$ = .3514; $p \leq .05$), and SWB ($r$ = .5302; $p \leq .001$). Comfort in social relationships is associated with higher well-being.

The third social relationship question had to do with problems dealing with people or easily dealing with people. This variable correlated in a positive direction within the Honest treatment

group on RWB ($r$ = .3720; $p \leq$ .05) and SWB ($r$ = .3955; $\leq$ .05). Interesting as well is that 86.2% of the participants rated themselves in the top three categories, indicating they dealt easily with people. Only 4.2% rated themselves in the two bottom categories, indicating they had problems dealing with people. This finding suggests getting along easily with people is associated with RWB and SWB.

## Financial Condition

The number of participants placing themselves in the lower three categories (17.9%), indicating they have chronic problems paying their bills, is surprisingly low. Many people join a National Guard unit in order to help pay bills. This is one of the main advertising promotions of the National Guard to gain enlistments, and it would seem more members would experience chronic problems paying bills. The largest category was the top one (47.9%), for having bills always paid.

## Importance of Religion

Though several studies have shown importance of religion to be positively correlated with SWB scores, Moody's (1988) study did not. For this sample, in the Honest treatment group importance of religion correlated positively with RWB ($r$ = .7846; $p \leq .001$), and SWB ($r$ = .6231; $p \leq .001$). For the Fake Good treatment group,

importance of religion also correlated positively with RWB ($r$ = .4304; $p \leq .01$), and SWB ($r$ = .3557; $p \leq .05$).

The lowest three categories, indicating religion is not important tallied 54.3% of the sample, while 45.7% rated themselves in the top three categories, indicating religion is important to them. Just 27.6% rated themselves in the top category. These findings are surprising because the sample was selected for being religiously inactive. One possible explanation accounting for these results is that those not religiously involved may believe it is important to have religious beliefs but not necessarily to practice those beliefs.

### Satisfaction with Current Life

This variable was not asked in the Moody (1988) study. This question asked if participants were satisfied with their current life experience. The largest category was the second from top (43.6%). Overall 86% rated themselves in the top three categories, indicating this sample is mostly satisfied with their current life experience.

Though RWB did not significantly correlate with this variable, EWB ($r$ = .5652; $p \leq .001$), and SWB ($r$ = .3585; $p \leq .05$) correlated in a positive direction within the Honest treatment group. EWB ($r$ = .4056; $p \leq .01$) also correlated positively within the Fake Good

treatment group. It is not surprising that this finding suggests satisfaction with life is associated with EWB and SWB.

Frequency of Church Attendance

Correlations found were consistent with previous studies. Frequency of church attendance correlated in a positive direction in the Honest treatment group for RWB ($r$ = .4009; $p \leq .01$), and SWB ($r$ = .4448; $p \leq .01$).

The largest group in this sample said they attended church 1 - 2 times a year (31.9%). Only one participant, in this religiously inactive sample, said they attended church weekly. That person also indicated not being a Christian, and wrote of engaging in occult activities.

The most questionable category is the attending 3 - 11 times a year category. This category comprised 23.4% of the sample. It is possible that a person who attends 11 times a year could be considered to be actively religious. However, the other question selecting out religiously active participants prior to analysis, frequency of personal devotions, was cutoff at "Not at all". Anyone who attends a church service 11 times a year and never has personal devotions was considered not religiously active.

This finding is consistent with previous studies suggesting church attendance is associated with SWB (Bressem, 1986; Bufford, 1984; Durham, 1985; & Jang, 1986).

## Frequency of Personal Devotions

Similar to previous studies, frequency of personal devotions correlated significantly with SWB. What is surprising is that the Honest treatment group of this religiously inactive sample attained significant positive correlations for RWB ($r$ = .6139; $p \leq .001$), and SWB ($r$ = .5562; $p \leq .001$).

As might be expected, the largest category was not having devotions at all (38.3%); however, close behind was having personal devotions less than once per week (37.2%). Only 24.5% said they had personal devotions more than once per week and just 3.2% more than once per day. As indicated by questions asked by participants following testing, several reporting personal devotions weekly or more than once per week practice some form of meditation not connected to a conservative fundamental evangelical concept of God. These findings suggest that worship, even false worship, is associated with a higher sense of well-being. This finding is also consistent with reported findings of Ellison and Economos (1981), Bufford (1984), Bressem, Waller, and Powers (1985), and Jang, Padden, and Palmer (1985).

## Christian Profession

Christian profession correlated significantly for both the Honest and Fake Good treatment groups. The Honest group correlated significantly with RWB ($r$ = .5493; $p \leq .001$), and SWB ($r$ = .4654; $p$

$\leq$ .01). The Fake Good group correlated significantly with RWB ($r$ = .5032; $p \leq .001$), and SWB ($r$ = .4567; $p \leq .01$).

Just 10.6% of the participants said they had received Jesus Christ as personal Savior and Lord. Another 9.6% said they had received Jesus Christ as personal Savior and Lord and seek to follow the moral and ethical teachings of Christ. At first appearance these persons should have been selected out from analysis as religiously active cases. However, all said they either never had personal devotions or attended church 11 times or fewer on a yearly basis. It has already been discussed why those particular questions were employed to eliminate religiously active cases from analysis.

Number of Years Professing Christian

The number of years professing to be a Christian significantly correlated in the Honest treatment group in a positive direction with RWB ($r$ = .4535; $p \leq .01$), EWB ($r$ = .4135; $p \leq .01$), and SWB ($r$ = .5320; $p \leq .001$). In the Fake Good treatment group this variable positively correlated with EWB ($r$ = .3085; $p \leq .05$). This demographic variable is the only one to significantly correlate in the Fake Bad treatment group. It correlated in a negative direction with EWB ($r$ = -.3602; $p \leq .05$).

The largest group of years for this sample was 0 - 5 years (35.1%). Of those, 27 (31.4% of the sample) had said they were not

a Christian and left the number of years question blank. Those 27 cases were coded as 0 years. There were eight cases which had answered "yes" to the profess to be a Christian question, but had left number of years professing blank. Those cases were coded as missing observations. The findings for this variable are not surprising, in that they suggest years of being a Christian is associated with higher RWB, EWB, and SWB. The association of years professing to be a Christian to higher EWB is strengthened by the negative correlation found for the Fake Bad treatment group.

## Correlations between RWB, EWB, SWB, and Demographics

Within the Honest treatment group, nine variables were found to correlate significantly. Of these nine variables, five were typically religious. Years professing to be a Christian, and social relationships having to do with enjoying being with people, correlated in a positive direction on SWB and both the subscales, RWB and EWB. Importance of religion, frequency of church attendance, frequency of personal devotions, and profession to be a Christian all significantly correlated in a positive direction with the subscale RWB, and SWB. Three other variables within the Honest treatment group were found to have significant correlations, one with a negative correlation. The negatively correlated variable in the Honest treatment group, was social relationships having to do

with dislike being alone, which correlated negatively with the subscale EWB, and SWB. The variable, dealing easily with people, was positively correlated with RWB and SWB. The final non-religious variable correlating significantly within the Honest treatment group was satisfaction with current life experience, which correlated with the subscale EWB, and SWB.

Within the Fake Good treatment group four variables significantly correlated. Importance of religion, and profession to be a Christian significantly correlated with the subscale RWB, and SWB. Satisfaction with current life experience, and years professing to be a Christian positively correlated with the subscale EWB.

Within the Fake Bad treatment group, years professing to be a Christian negatively correlated with EWB.

These correlations found for religious variables are consistent with the Moody (1988) study, and when combined with the variables, Importance of religion, satisfaction with current life, profession to be a Christian, and years professing to be a Christian, suggests faking is not a major problem on previous samples.

## Effects of Faking Instructions

Whether the SWB scale is vulnerable to faking can now be answered more conclusively. Moody's (1988) results were

inconclusive regarding vulnerability to faking good on the SWB scale by a Christian sample. She found that the SWB scale could be faked in a negative direction. Since her sample did not significantly distinguish faking good from honest scores, not much could be said. She speculated that social desirability was already present in the Honest treatment group, thus bringing their scores into close proximity with her Fake Good treatment group scores. Her second and preferred speculation was that a low ceiling level on the SWB scale prevented the Fake Good treatment group from faking very far in their effort to look good. The supposition that the ceiling on the SWB scale may be too low has already been postulated by Colwell (1986) and Mueller (1986).

Participants in this sample of religiously inactive persons were able to fake in both a negative and positive direction on the SWB scale; thus for this study, all three null hypotheses were rejected. The hypotheses were that there would be no difference among the means of the three treatment groups for RWB, EWB, and SWB.

An analysis of variance was performed for each of the dependent measures (RWB, EWB, SWB), and the $F$ statistic in each case was substantial. Scheffe' post hoc testing revealed that for each dependent measure there was a significant difference between the Fake Good, Honest, and Fake Bad conditions with one exception. The

Honest and Fake Good treatment groups did not significantly differ for EWB.

The conclusion from the present study is that the subscale RWB and the SWB full scale score can be faked in either positive or negative directions by religiously inactive persons.

It is interesting to note that the mean RWB scores for the Honest treatment group and non-religious sociopathic convicts are 35.26 (Bufford, Bently, Newenhouse, & Papania, 1986) and 35.60 respectively. The mean RWB score for the Fake Good treatment group (45.88) is better than ten points higher than the Honest group, and is most closely related with the mean RWB scores of sexually abused women (46.46) (Rodriguez, 1988) and ethical Christians (46.76) (Bufford, Bently, Newenhouse, & Papania, 1986). These similar means among samples suggest this sample indeed represents those who lack religious sophistication, and that even without that sophistication, this sample was able to score at least as well as ethical Christians and a sample of women professing to be religiously active, with a history of sexual abuse.

For the Fake Good treatment group the SWB mean of 95.24 is better than 12 points higher than the Honest treatment group (82.03), and is closest to that of a an Ethical Christian sample (93.42) (Bufford, Bently, Newenhouse, & Papania, 1986), the Moody (1988) Honest treatment group (94.87), and a Presbyterian sample (98.05) (Bufford, Bently, Newenhouse, & Papania, 1986). This

finding suggest that though religiously unsophisticated, this sample was able to score as high as samples of ethical Christians, a community church, and Presbyterians. One explanation for this finding is that the other samples are elevated due to social desirability and the present sample is elevated due to instructions to deliberately fake. As defined in this study, the other samples had no apparent reason to impression manage, not being instructed to fake, nor applying for a position or job, yet may have allowed social desirability to influence their scores. Within the parameters of this study there is no way to distinguish social desirability influence from faking.

Comparing the Moody (1988) Fake Good SWB mean (102.91) and the present study's Fake Good SWB mean (95.24) is intriguing also, especially when the Moody (1988) Honest SWB mean was 94.87. These three means when combined with the correlations on religious variables, such as importance of religion, church attendance, and frequency of personal devotions, and the present study's Honest group mean (82.03) suggest that religious activity or experience may effect the degree to which one is able to fake.

The frequency of scores at the top of ranges for the Honest and Fake Good treatment groups support the conclusion that the SWB scale is vulnerable to faking by religiously inactive persons. These variances also suggest ceiling effects for the SWB scale are not a serious concern with a religiously inactive sample. For RWB,

the Fake Good treatment group scored 24.5% of its members in the top category of range (55 - 60), while in the Honest treatment group only 8.8% of its membership scored in the top category. For SWB the Fake Good treatment group scored 33.3% of its members in the top three categories of range (105 - 120), while in the Honest treatment group only 11.7% of its membership scored in the top three categories.

The lack of correlations between the Fake Bad treatment group and the demographic variables, and the correlations between the Fake Good treatment group and several demographic variables, suggests faking is not a major problem in prior samples.

## Implications for Future Research

One interesting future study might be to study faking on the SWB scale among a religiously inactive sample using a repeated measures design, or alternate conditions with each person responding alternately to both faking and honest instructions. Findings may, one would hope, add support to the present study.

Another interesting study would be to compare newly professing Christians with minimal religious experience/activity with more experienced and seasoned Christians. A study of this nature may show utility for the present form of the SWB scale. To add a twist to the above study, one might add a longitudinal aspect by

following new believers over a period of time in a test-retest design.

As suggested by Moody (1988), another study might investigate adding lie detector questions to the scale. The questions might be divided into subtle and obvious questions similar to the Weiner-Harmon Subtle-Obvious subscales on the MMPI (Weiner, 1948). Suggested questions might be: I always have my devotions (obvious); I immediately acknowledge God's love for me in every trying situation (subtle). Should questions be added, however, several problems must be considered. It may be that some Christians actually behave or think as virtuously as their score would indicate. Most importantly, the non-sectarian aspect of the scale may be lost as definitive lie questions are added. Such questions that might harm the broad utility of the scale are: I have never feared God might reject me (obvious), which involves security of the believer; I believe God is pleased with me because I always do what is right (subtle), which involves inflated importance of works.

Previous studies have shown correlations between SWB scores and social desirability, but none have attempted to distinguish faking responses from unconscious response bias. A study of this nature may resolve some of the interpretation problems of high SWB scores. Comparison of unconscious response bias, as measured by the Self-Deception Questionnaire (SDQ) and Edwards Social Desirability

Questionnaire, with faking or impression management response sets, as measured by Wiggins Social Desirability Scale on the MMPI and the Other-Deception Questionnaire, could be researched. Paulhus (1986) provides the rationale for the above measures.

This author agrees with Moody's (1988) suggestion of formalizing a body of demographic questions while allowing room for specific tailoring to a particular study.

## Implications for Use of the SWB Scale

The SWB scale was developed with the hope it could be used as a quick screening instrument in selecting pastors, deacons, elders, and teachers in church situations as well as faculty, staff, and administrators in private religious institutions (Goal #1). It was also hoped to be used in gaining a quick "pulse" on a person's spiritual well-being (Goal #2). For the first goal it is important to distinguish faking from honest reporting. Many of the methods to enhance honesty on self-report instruments are not possible with the first goal. One method, confidentiality of the respondent, is not practical for hiring purposes. Distinguishing faking is essential in these cases. Were lie detector questions added, and should a score be identified as a faking response, the information is still useful. That a person recognizes the need for a particular attribute or need suggests room for growth. Also item

analysis of each lie detector question would be informative as to what areas might be suspect for a particular person. In it's present form the SWB scale does not appear to possess utility for goal #1.

The SWB scale does have utility for Goal #2 in particular circumstances. Since it appears that lack of religious experience may reduce ability to fake on the SWB scale, it could be used with new converts or believers (under the assumption they lack religious experience) in new members classes or para-church organizations, to gain that quick pulse for spiritual well-being. Should a lie scale be added to the present form, the scale would have even more utility. If new believers were able to fake, that information would be useful. Faking by new believers might suggest recognition of basic knowledge of what it means to be a Christian and that Christian living has positive benefits. Whether one possessed spiritual well-being or simply recognized it as positive would be beneficial to church, school, or organizational leaders.

The identification of faking responses is important. However, there are other considerations. As previously mentioned, social desirability may be a factor in high scores. Social desirability was defined as "an unconscious desire to be seen in a positive or negative light depending upon the circumstances". Another unconscious response pattern is self-deception, "any positively biased response that the respondent actually believes to be true".

If the pattern could be identified, knowing a person scoring high on the SWB scale as a result of self-deception or social desirability would also be useful information.

In light of the present study, it can be said that the SWB scale, in its present form, is vulnerable to faking by religiously inactive persons. On the SWB scale, high scores especially need to be interpreted cautiously.

## Summary

Mental health professionals have become interested in subjective measures of quality of life. It has been seen that interest in the psychology of religion, and in particular, spiritual well-being, is also increasing. The Spiritual Well-being Scale, developed by Ellison and Paloutzian, is a self-report instrument being researched currently in an attempt to measure spiritual well-being as one aspect of quality of life. At Western Conservative Baptist Seminary (WCBS) alone there have been over 40 studies examining various aspects of the SWB scale.

Although Ellison did not think the SWB scale would be significantly affected by social desirability, research at WCBS has suggested a positive correlation between various measures of social desirability and SWB scores.

In a step to build upon the previous study of deliberate faking on SWB scores in a church sample by Moody (1988), the purpose of this study was to investigate whether the SWB scale could be faked by religiously inactive persons.

This was a true experimental design, with three levels of independent variables: Fake Good, Honest, and Fake Bad instructions. The sample consisted of 94 members of two Air National Guard units. An analysis of variance was performed for each of the dependent measures (SWB and its two subscales, RWB and EWB). ANOVA's and Scheffe' post hoc testing revealed significant differences between all three treatment groups for SWB and RWB. The EWB subscale showed a main effect and differences between Fake Bad and the other two conditions; however, no difference was found between the Honest and Fake Good treatment groups. Significant main effects were found for all of the SWB scale items. Six items, all of which are part of the RWB subscale, showed differences between each of the three treatment conditions. One RWB item showed differences between the Honest and Fake Good condition but not between the Honest and Fake Bad treatment condition. The remaining 13 items showed differences between the Honest and Fake Bad treatment conditions. The null hypotheses, which stated there would be no significant differences, were rejected.

The present study indicates the SWB scale can be faked both positively and negatively, at least by religiously inactive people.

It is reasonable to assume, then, that Christians should be able in principle to fake on the scale also. Just because someone scores high on the scale does not, however, mean they have faked. The high score could in fact be a true measure of their SWB. The high score might also be due to social desirability.

Significant correlations were also found for SWB and nine of the demographic variables in the Honest treatment group. RWB, EWB, and SWB were positively correlated with comfort being with people, and years professing to be a Christian. SWB and its subscale RWB were positively correlated with frequency of church attendance, frequency of personal devotions, Christian profession, importance of religion, and dealing easily with people. SWB and its subscale EWB were negatively correlated with preference to be alone. SWB and the subscale EWB was positively correlated with satisfaction with current life.

In the Fake Good treatment group positive correlations were also found for four of the 14 demographic variables. RWB and SWB were positively correlated with importance of religion and profession to be a Christian. EWB was positively correlated with satisfaction with current life, and years professing to be a Christian.

In the Fake Bad treatment group one negative correlation was found, years professing to be a Christian was negatively correlated with the subscale EWB.

Future research possibilities might include: Adding lie detector questions to the present scale form and replicate the previous and present faking study; comparing SWB scores with valid measures of impression management and social desirability in hopes of finding notable ranges differentiating the two; a longitudinal study following new believers, investigating effects of Christian experience on SWB scores.

The results of this study suggest the utility of the SWB in its present form is limited. It may be effective in evaluating new believers for a "pulse" of spiritual well-being, for teaching or training purposes. SWB scores, at least high ones, do not appear to be useful in reviewing applicants for religious offices or positions. Low scores may be of diagnostic use in that they might indicate a person is experiencing a low degree of well-being and would benefit from assistance.

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# APPENDIX A

## INSTRUCTIONS AND DEMOGRAPHICS

## INTRODUCTION

You have been asked to participate in a study of personal religious beliefs and life satisfaction. Your cooperation will allow for the development of valid and reliable instruments. The attached questionnaire and instrument will require about 10 minutes to complete. PLEASE READ THE INSTRUCTIONS PROVIDED FOR EACH SECTION CAREFULLY BEFORE BEGINNING. Please DO NOT PLACE YOUR NAME on any of the materials to insure confidentiality of your responses.

## AGREEMENT TO PARTICIPATE IN RESEARCH STUDY

By filling out the questionnaire and answering the questions on the attached pages I agree to participate in the above research study. I understand that my role in this study is completely confidential, that the results of this study may be published, but that my name will not be used and I will not be identifiable from the results in any way. I further understand that I may decline to participate and simply return the unanswered questionnaire.

**THANK YOU FOR YOUR PARTICIPATION !**

BACKGROUND INFORMATION

Please complete the eleven background information questions honestly and in full. Complete each question in order. Do not jump ahead in the test materials. Remember, your answers are confidential, and this information is needed to insure the validity of the findings. Please be careful to answer each question. Unless otherwise stated simply check the appropriate line:

1. Age: _____ (Write in your current age in years)

2. Sex: _____Male _____Female

3. Education: (Show highest level completed)
   _____High School degree or GED
   _____College Freshman
   _____College Sophomore
   _____College Junior
   _____College Senior (Graduated)
   _____Graduate Studies

4. Marital Status: (Check response which best describes your current marital status)
   _____Never Married
   _____Married
   _____Divorced
   _____Widowed
   _____Separated
   _____Living Together
   _____Divorced and Remarried
   _____Widowed and Remarried

For the following question circle the number that best describes you:

5. Social Relationships:

| | | |
|---|---|---|
| A. Dislike being alone | 1 2 3 4 5 6 | Enjoy being alone |
| B. Uncomfortable with people | 1 2 3 4 5 6 | Enjoy being with people |
| C. Frequent Problems with people | 1 2 3 4 5 6 | Deal easily with people |

For each of the following questions circle the number that best describes you:

6. Financial Condition:

Chronic Problem 1 2 3 4 5 6 Bills Paid

7. Importance of religion:

No Importance 1 2 3 4 5 6 Extremely Important

8. Extent to which you are satisfied with your current life:

Quite Dissatisfied 1 2 3 4 5 6 Quite Satisfied

Check the appropriate line which best describes you.

9. Frequency of Church Attendance:
_____Not at all
_____Less than once/year
_____Once or twice/year
_____3-11 times/year
_____1-3 times/month
_____Weekly
_____More than once/week

10. Frequency of Personal Religious Devotions: (e.g. Personal Prayer, Bible Study, Meditation)
_____Not at all
_____Less than once/week
_____Weekly
_____1-3 times/week
_____4-7 times/week
_____More than once/day

11. Do you profess to be a Christian? (Check the one response that best describes you)

_____No

_____Yes, I respect and attempt to follow the moral and ethical teachings of Christ.

_____Yes, I have received Jesus Christ into my life as my personal Savior and Lord.

_____Yes, I have received Jesus Christ as my personal Savior and Lord, and I seek to follow the moral and ethical teachings of Christ.

If Yes, _____ number of years you have been a professing Christian.

Thank You !

# APPENDIX B

## SWB SCALE WITH DIFFERENT INSTRUCTIONS

# APPENDIX C

## VERBAL AND CHALKBOARD INSTRUCTIONS

## Instructions at Commander's Call

In order to fulfill requirements for a doctoral degree in psychology, I am conducting a study of personal religious beliefs and life satisfaction. I've prepared a survey which will require no more than 15 minutes of your time. Colonel _____ has kindly given permission for me to give this survey to members of the _____ Squadron during your lunch break. I would like you to come to this room anytime between 1045 and 1300 hours to take the survey. You will not be identified by name or unit in the study. I will have the results tabulated and interpreted by next March and will present the findings to you as the Commander permits. Should you decline to take the survey, please hand it back to the research assistant.

## Chalkboard Instructions

Please, read the instructions carefully, there are subsets of instructions.

Please answer all the questions.

# APPENDIX D

## INTERCORRELATIONS OF SWB AND IBS SCALES

Intercorrelations of SWB and IBS Scales

| IBS Scales | SWB | RWB | EWB |
|---|---|---|---|
| Validity | | | |
| Denial | .343* | .269* | .352* |
| Infrequency | -.325* | -.322* | -.268* |
| Impression Management | .468* | .362* | .486* |
| Aggressiveness | | | |
| General Aggressiveness | -.564* | -.528* | -.499* |
| Hostile Stance | -.510* | -.463* | -.465* |
| Expression of Anger | -.339* | -.229* | -.389* |
| Disregard for Rights | -.257* | -.209* | -.257* |
| Verbal Expression | -.394* | -.367* | -.354* |
| Physical Aggressiveness | -.262* | -.231* | -.247* |
| Passive Aggressiveness | -.456* | -.359* | -.465* |
| Assertiveness | | | |
| General Aggressiveness | .260* | .319* | .269* |
| Self Confidence | .350* | .357* | .343* |
| Initiating Assertiveness | .338* | .350* | .260* |
| Defending Assertiveness | .046 | .065 | .017 |
| Frankness | .054 | .042 | .054 |
| Praise | .298* | .291* | .252* |
| Requesting Help | .363* | .370* | .290* |
| Refusing Demands | .065 | -.004 | .123 |
| Conflict Avoidance | -.022 | -.010 | -.025 |
| Dependency | -.251* | -.235* | -.219* |
| Shyness | -.340* | -.320* | -.294* |

(Bufford and Parker, 1985).

# APPENDIX E

## MEANS AND STANDARD DEVIATIONS

## FOR VARIOUS SAMPLES

Means and Standard Deviations for Various Samples

| S | N | RWB M | RWB SD | EWB M | EWB SD | SWB M | SWB SD |
|---|---|---|---|---|---|---|---|
| D3 | 41 | 56.73 | 5.42 | 53.15 | 6.78 | 109.88 | 11.58 |
| D6 | 24 | 56.21 | 4.64 | 52.37 | 6.03 | 108.58 | 8.98 |
| P | 90 | 56.19 | 5.15 | 53.78 | 5.31 | 109.99 | 9.44 |
| D4 | 30 | 55.73 | 5.97 | 51.70 | 6.58 | 107.43 | 11.44 |
| D5 | 31 | 54.94 | 6.22 | 51.00 | 7.23 | 105.94 | 12.72 |
| B | 66 | 53.96 | 5.63 | 50.12 | 6.93 | 104.08 | 11.30 |
| L2 | 46 | 53.46 | 7.35 | 50.57 | 8.11 | 104.02 | 14.23 |
| J | 43 | 52.85 | 6.96 | 49.60 | 5.90 | 102.45 | 11.15 |
| HL | 54 | 52.71 | 8.97 | 48.52 | 10.82 | 101.24 | 18.11 |
| A1 | 27 | 51.10 | 10.40 | 50.10 | 10.40 | 105.50 | 13.15 |
| H | 88 | 51.03 | 10.93 | 50.34 | 8.35 | 101.37 | 17.11 |
| D7 | 32 | 49.64 | 7.43 | 49.47 | 7.29 | 99.09 | 13.48 |
| D8 | 19 | 48.32 | 10.20 | 49.74 | 7.49 | 98.05 | 16.79 |
| A2 | 25 | 35.60 | 9.20 | 40.70 | 9.20 | 76.30 | 16.30 |
| L1 | 45 | 34.10 | 13.03 | 48.71 | 7.57 | 82.81 | 15.02 |
| D2 | 143 | 55.64 | 5.87 | 52.48 | 6.31 | 108.13 | 11.08 |
| D1 | 33 | 46.76 | 8.30 | 46.67 | 7.78 | 93.42 | 14.63 |

(Bufford, R. K., Bently, R. H., Newenhouse, J. M., & Papania, A. J., 1986).

Abbreviations: S = Study; N = Sample Size; M = Mean; SD = Standard Deviation.

Identification of Samples:
D3 = Assembly of God; D6 = Conservative Baptist; P = Seminary Students; D4 = Foursquare; D5 = Christian Church; B = Evangelical Christians; L2 = Baptist (General Conference); J = Baptist; HL = Medical Outpatient; H = Medical Outpatient; A1 = Orthodox Christian Sociopathic Convict; D7 = United Methodist; D8 = Presbyterian; A2 = Non-religious Sociopathic Convict; L1 = Unitarian; D2 = Born Again Christian; D1 = Ethical Christian

Comparison of Other Samples on SWB Scores

| Sample | Mean | SD | N | t |
|---|---|---|---|---|
| Sexually Abused Women | 85.90 | 19.70 | 50 | |
| Eating Disorder IPT | 77.59 | 15.43 | 37 | 2.21* |
| Eating Disorder OPT | 80.36 | 17.05 | 25 | 1.26 |
| Medical Patients | 99.89 | 16.01 | 56 | 3.98** |
| Chronic Pain Patients | 85.34 | 19.75 | 41 | .13 |
| Seminary Students | 106.00 | 10.29 | 51 | 6.41** |
| Youth for Christ Staff | 106.20 | 10.94 | 298 | 7.10** |

Note: * $p \leq .05$, ** $p \leq .01$

Comparison of other Samples on RWB Scores

| Sample | Mean | SD | N | t |
|---|---|---|---|---|
| Sexually Abused Women | 46.46 | 11.48 | 50 | |
| Eating Disorder IPT | 41.65 | 10.04 | 37 | 2.07* |
| Eating Disorder OPT | 39.56 | 12.15 | 25 | 2.36* |
| Medical Patients | 51.50 | 9.67 | 56 | 2.43* |
| Chronic Pain Patients | 43.93 | 10.81 | 41 | 1.29 |
| Seminary Students | 54.75 | 5.92 | 51 | 4.55** |
| Youth for Christ Staff | 55.35 | 5.27 | 298 | 5.40** |

Note: * $p \leq .05$, ** $p \leq .01$

Comparison of Other Samples on EWB Scores

| Sample | Mean | SD | N | t |
|---|---|---|---|---|
| Sexually Abused Women | 39.44 | 10.80 | 50 | |
| Eating Disorder IPT | 35.92 | 8.20 | 37 | 1.73 |
| Eating Disorder OPT | 40.80 | 8.67 | 25 | .59 |
| Medical Patients | 48.50 | 8.38 | 56 | 4.79** |
| Chronic Pain Patients | 41.66 | 11.13 | 41 | .96 |
| Seminary Students | 51.25 | 5.88 | 51 | 6.82** |
| Youth for Christ Staff | 50.96 | 6.92 | 298 | 7.34** |

Note: * $p \leq .05$, ** $p \leq .01$

# APPENDIX F

## SOCIAL DESIRABILITY AND SWB

Correlations Between SWB and Measures of Social Desirability/Response Bias

| Scale and Study | N | SWB | RWB | EWB |
|---|---|---|---|---|
| IBS (Denial) | | | | |
| Bufford, Parker (1985) | 90 | .343** | .269** | .352** |
| Hawkins (1986) | 88 | .272*** | .219** | .271*** |
| Campbell, Mullins, Colwell (1984) | 28 | .331* | .335* | .241 |
| IBS (Impression Management) | | | | |
| Mullins (1986) | 41 | .585*** | .499*** | .592*** |
| Parker (1984) | 90 | .468*** | .362*** | .486*** |
| Bufford, Parker (1985) | 90 | | | |
| Social Desirability (Edwards) | | | | |
| Carr (1986) | 239 | .487*** | .399*** | .492*** |
| Clarke, Clifton, Cooper, Mishler, Olson, Sampson. Sherman (1985) | 33 | .44* | .09* | .66* |
| Mitchell, Reed (1983) | 49 | .32* | | |
| Social Desirability (Marlowe-Crowne) | | | | |
| Upshaw (1984) | 48 | No significant relationships were found. | | |
| MMPI (L Scale) | | | | |
| Frantz (1985) | 72 | .243 | .247 | .174 |
| Parker (1984) | 90 | .350*** | .332*** | .251** |

Note: * $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$

Correlations Between SWB and Measures of Social Desirability/Response Bias

| Scale and Study | N | SWB | RWB | EWB |
|---|---|---|---|---|
| MMPI (F Scale) | | | | |
| Frantz (1985) | 72 | -.519*** | -.414*** | -.526*** |
| Parker (1984) | 90 | -.317*** | -.340*** | -.301*** |
| MMPI (K Scale) | | | | |
| Mullins (1986) | 41 | .271 | .205 | .268 |
| Frantz (1985) | 72 | .464** | .386** | .493*** |
| Parker (1984) | 90 | .489 | .450 | .327 |

Note: ** $p \leq .01$ *** $p \leq .001$

# APPENDIX G

## RANGE, FREQUENCIES, AND NUMBER OF MINIMUM AND MAXIMUM SCORES BY TREATMENT GROUP FROM MOODY (1988)

Frequency and Percent of RWB Score Ranges by Treatment Group

| | Honest | | Fake Good | | Fake Bad | |
|---|---|---|---|---|---|---|
| | Freq | Percent | Freq | Percent | Freq | Percent |
| Score | | | | | | |
| 10 - 14 | 0 | | 0 | | 17 | 30.4% |
| 15 - 19 | 0 | | 0 | | 11 | 19.7% |
| 20 - 24 | 0 | | 0 | | 5 | 9.0% |
| 25 - 29 | 1 | 1.8% | 1 | 1.7% | 1 | 1.8% |
| 30 - 34 | 1 | 1.8% | 0 | | 4 | 7.2% |
| 35 - 39 | 3 | 5.4% | 2 | 3.4% | 2 | 3.6% |
| 40 - 44 | 8 | 14.1% | 4 | 6.8% | 7 | 12.6% |
| 45 - 49 | 6 | 10.7% | 4 | 6.8% | 2 | 3.6% |
| 50 - 54 | 9 | 15.9% | 7 | 11.9% | 1 | 1.8% |
| 55 - 60 | 27 | 47.5% | 38 | 64.5% | 5 | 9.0% |

Frequency and Percent of EWB Score Ranges by Treatment Group

| | Honest | | Fake Good | | Fake Bad | |
|---|---|---|---|---|---|---|
| | Freq | Percent | Freq | Percent | Freq | Percent |
| Score | | | | | | |
| 10 - 14 | 0 | | 0 | | 20 | 35.8% |
| 15 - 19 | 0 | | 0 | | 7 | 12.6% |
| 20 - 24 | 2 | 3.6% | 1 | 1.7% | 5 | 9.0% |
| 25 - 29 | 3 | 5.3% | 3 | 5.1% | 2 | 3.6% |
| 30 - 34 | 5 | 8.9% | 4 | 6.8% | 4 | 7.2% |
| 35 - 39 | 3 | 5.3% | 5 | 8.5% | 3 | 5.4% |
| 40 - 44 | 8 | 14.1% | 6 | 10.2% | 4 | 7.2% |
| 45 - 49 | 9 | 15.9% | 8 | 13.6% | 4 | 7.2% |
| 50 - 54 | 12 | 21.1% | 11 | 18.7% | 3 | 5.4% |
| 55 - 60 | 5 | 8.9% | 18 | 30.6% | 0 | |

Frequency and Percent of SWB Score Ranges by Treatment Group

| | Honest | | Fake Good | | Fake Bad | |
|---|---|---|---|---|---|---|
| | Freq | Percent | Freq | Percent | Freq | Percent |
| Score | | | | | | |
| 20 - 24 | 0 | | 0 | | 12 | 21.5% |
| 25 - 29 | 0 | | 0 | | 4 | 7.1% |
| 30 - 34 | 0 | | 0 | | 8 | 14.3% |
| 35 - 39 | 0 | | 0 | | 3 | 5.4% |
| 40 - 44 | 0 | | 0 | | 4 | 7.2% |
| 45 - 49 | 0 | | 0 | | 1 | 1.8% |
| 50 - 54 | 0 | | 0 | | 0 | |
| 55 - 59 | 0 | | 0 | | 1 | 1.8% |
| 60 - 64 | 3 | 5.4% | 1 | 1.7% | 1 | 1.8% |
| 65 - 69 | 3 | 5.4% | 1 | 1.7% | 2 | 3.6% |
| 70 - 74 | 2 | 3.6% | 1 | 1.7% | 1 | 1.8% |
| 75 - 79 | 1 | 1.8% | 3 | 5.1% | 2 | 2.8% |
| 80 - 84 | 4 | 7.2% | 2 | 3.4% | 3 | 5.4% |
| 85 - 89 | 5 | 8.8% | 5 | 8.5% | 2 | 3.6% |
| 90 - 94 | 2 | 3.6% | 0 | | 1 | 1.8% |
| 95 - 99 | 4 | 7.1% | 4 | 6.8% | 2 | 3.6% |
| 100-104 | 6 | 10.6% | 8 | 13.6% | 1 | 1.8% |
| 105-109 | 7 | 12.3% | 6 | 10.2% | 1 | 1.8% |
| 110-114 | 5 | 8.8% | 9 | 15.3% | 6 | 10.7% |
| 115-120 | 5 | 8.9% | 15 | 25.5% | 0 | |

Range and Number of Participants Scoring Minimum to Maximum for RWB, EWB, and SWB by Treatment Group

| | Honest | Fake Good | Fake Bad |
|---|---|---|---|
| RWB | | | |
| *N* | 57 | 59 | 56 |
| *M* | 51.42 | 54.70 | 25.91 |
| Range | 34 | 33 | 50 |
| Min - Max | 26 - 60 | 27 - 60 | 10 - 60 |
| *n* Scoring Min | 1 | 1 | 13 |
| *n* Scoring Max | 12 | 21 | 3 |
| EWB | | | |
| *N* | 57 | 59 | 56 |
| *M* | 43.96 | 47.63 | 24.02 |
| Range | 38 | 40 | 43 |
| Min - Max | 22 - 60 | 20 - 60 | 10 - 53 |
| *n* Scoring Min | 1 | 1 | 13 |
| *n* Scoring Max | 3 | 8 | 0 |
| SWB | | | |
| *N* | 57 | 59 | 56 |
| *M* | 94.87 | 102.91 | 50.00 |
| Range | 60 | 59 | 93 |
| Min - Max | 60 - 120 | 61 - 120 | 20 - 113 |
| *n* Scoring Min | 1 | 1 | 4 |
| *n* Scoring Max | 1 | 1 | 0 |

# APPENDIX H

## SUMMARY OF RWB, EWB, SWB CORRELATIONS WITH DEMOGRAPHIC VARIABLES FOR HONEST, FAKE GOOD, FAKE BAD TREATMENT GROUPS

Summary of RWB, EWB, SWB Correlations with Demographic Variables for the Honest Treatment Group

| | RWB | EWB | SWB |
|---|---|---|---|
| AGE | .2588 | .0815 | .2286 |
| ED LVL | .1302 | .2968 | .2323 |
| SOC REL ALONE | -.3073 | -.4443** | -.4287** |
| SOC REL W/PEOPLE | .4996** | .3514* | .5302*** |
| SOC REL PROB/EASILY | .3720* | .2631 | .3955* |
| FINANCIAL COND | .1819 | .2097 | .2305 |
| IMPORT OF RELIGION | .7846*** | .5652*** | .6231*** |
| SAT W/ CURRENT LIFE | .1344 | .5652*** | .3585* |
| FREQ OF CHURCH ATT | .4009** | .3241 | .4448** |
| FREQ OF PERS DEV | .6139*** | .2238 | .5562*** |
| PROFESS AS CHRISTIAN | .5493*** | .1300 | .4654** |
| YEARS PROFESSING | .4535** | .4135** | .5320*** |

Note: $N = 34$ * $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$

Summary of RWB, EWB, SWB Correlations with Demographic Variables for the Fake Good Treatment Group

| | RWB | EWB | SWB |
|---|---|---|---|
| AGE | .0189 | .0619 | .0414 |
| ED LVL | -.1140 | -.1771 | -.1604 |
| SOC REL ALONE | -.0290 | -.0137 | -.0264 |
| SOC REL W/PEOPLE | .0706 | -.0455 | .0287 |
| SOC REL PROB/EASILY | .2719 | .2979 | .3238 |
| FINANCIAL COND | .0301 | .1969 | .1041 |
| IMPORT OF RELIGION | .4304** | .1218 | .3557* |
| SAT W/ CURRENT LIFE | -.0833 | .4056** | .1276 |
| FREQ OF CHURCH ATT | .2790 | -.1041 | .1470 |
| FREQ OF PERS DEV | .2072 | .1885 | .2305 |
| PROFESS AS CHRISTIAN | .5032*** | .2316 | .4567** |
| YEARS PROFESSING | .0725 | .3085* | .1923 |

Note: _ = 34 * $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$

Summary of RWB, EWB, SWB Correlations with Demographic Variables for the Fake Bad Treatment Group

| | RWB | EWB | SWB |
|---|---|---|---|
| AGE | .1827 | -.0992 | -.1493 |
| ED LVL | -.0677 | -.0150 | -.0425 |
| SOC REL ALONE | .2355 | -.0904 | .0634 |
| SOC REL W/PEOPLE | -.1801 | -.2014 | -.2084 |
| SOC REL PROB/EASILY | -.1825 | -.1156 | -.1589 |
| FINANCIAL COND | -.0825 | -.2884 | -.2114 |
| IMPORT OF RELIGION | .2158 | -.2254 | -.0262 |
| SAT W/ CURRENT LIFE | -.2130 | -.0591 | -.1406 |
| FREQ OF CHURCH ATT | .2628 | .0343 | .1506 |
| FREQ OF PERS DEV | .3711 | .0439 | .2101 |
| PROFESS AS CHRISTIAN | .3586 | -.0616 | .1415 |
| YEARS PROFESSING | .0115 | -.3602* | -.2072 |

Note: $N = 34$ * $p \leq .05$

# APPENDIX I

## EXACT FREQUENCIES OF RWB, EWB, SWB SCORES BY TREATMENT GROUP

Exact Frequencies of RWB, EWB, and SWB - Honest Treatment Group

| RWB | | | EWB | | | SWB | | |
|---|---|---|---|---|---|---|---|---|
| Value | Freq | Percent | Value | Freq | Percent | Value | Freq | Percent |
| 10 | 3 | .9 | 26 | 1 | .3 | 43 | 1 | .3 |
| 11 | 1 | .3 | 29 | 1 | .3 | 48 | 1 | .3 |
| 17 | 2 | .6 | 33 | 1 | .3 | 49 | 1 | .3 |
| 18 | 1 | .3 | 34 | 1 | .3 | 54 | 1 | .3 |
| 20 | 1 | .3 | 35 | 1 | .3 | 57 | 1 | .3 |
| 22 | 1 | .3 | 38 | 2 | .6 | 61 | 1 | .3 |
| 28 | 1 | .3 | 39 | 1 | .3 | 63 | 1 | .3 |
| 29 | 1 | .3 | 41 | 2 | .6 | 66 | 1 | .3 |
| 30 | 1 | .3 | 42 | 1 | .3 | 69 | 1 | .3 |
| 32 | 1 | .3 | 43 | 1 | .3 | 70 | 1 | .3 |
| 34 | 2 | .6 | 44 | 1 | .3 | 72 | 1 | .3 |
| 35 | 2 | .6 | 45 | 1 | .3 | 75 | 1 | .3 |
| 36 | 1 | .3 | 46 | 3 | .9 | 76 | 2 | .6 |
| 38 | 1 | .3 | 48 | 1 | .3 | 77 | 1 | .3 |
| 39 | 1 | .3 | 49 | 2 | .6 | 78 | 1 | .3 |
| 41 | 1 | .3 | 50 | 2 | .6 | 82 | 1 | .3 |
| 43 | 2 | .6 | 51 | 1 | .3 | 84 | 2 | .6 |
| 44 | 1 | .3 | 53 | 2 | .6 | 85 | 1 | .3 |
| 47 | 2 | .6 | 56 | 2 | .6 | 87 | 1 | .3 |
| 49 | 2 | .6 | 57 | 3 | .9 | 88 | 1 | .3 |
| 51 | 1 | .3 | 59 | 2 | .6 | 91 | 1 | .3 |
| 53 | 1 | .3 | 60 | 2 | .6 | 95 | 1 | .3 |
| 54 | 1 | .3 | | | | 96 | 1 | .3 |
| 56 | 1 | .3 | Mean = 46.76 | | | 97 | 1 | .3 |
| 57 | 1 | .3 | | | | 99 | 1 | .3 |
| 60 | 1 | .3 | | | | 102 | 1 | .3 |
| | | | | | | 103 | 1 | .3 |
| Mean = 35.26 | | | | | | 104 | 1 | .3 |
| | | | | | | 109 | 1 | .3 |
| | | | | | | 113 | 1 | .3 |
| | | | | | | 117 | 1 | .3 |
| | | | | | | 119 | 1 | .3 |
| | | | | | | Mean = 82.03 | | |

Note: N = 34

Exact Frequecies of RWB, EWB, and SWB - Fake Good Treatment Group

| RWB | | | EWB | | | SWB | | |
|---|---|---|---|---|---|---|---|---|
| Value | Freq | Percent | Value | Freq | Percent | Value | Freq | Percent |
| 26 | 1 | .3 | 35 | 1 | .3 | 71 | 1 | .3 |
| 30 | 2 | .6 | 36 | 1 | .3 | 72 | 2 | .6 |
| 31 | 1 | .3 | 39 | 1 | .3 | 73 | 1 | .3 |
| 33 | 4 | 1.2 | 41 | 2 | .6 | 74 | 1 | .3 |
| 36 | 1 | .3 | 42 | 2 | .6 | 80 | 1 | .3 |
| 39 | 1 | .3 | 43 | 2 | .6 | 81 | 2 | .6 |
| 40 | 2 | .6 | 45 | 2 | .6 | 83 | 1 | .3 |
| 44 | 1 | .3 | 47 | 1 | .3 | 85 | 1 | .3 |
| 45 | 2 | .6 | 48 | 2 | .6 | 86 | 1 | .3 |
| 47 | 1 | .3 | 49 | 1 | .3 | 87 | 1 | .3 |
| 48 | 1 | .3 | 50 | 2 | .6 | 90 | 2 | .6 |
| 49 | 2 | .6 | 51 | 1 | .3 | 92 | 2 | .6 |
| 50 | 1 | .3 | 52 | 1 | .3 | 97 | 1 | .3 |
| 51 | 1 | .3 | 53 | 2 | .6 | 98 | 2 | .6 |
| 53 | 1 | .3 | 54 | 1 | .3 | 99 | 1 | .3 |
| 54 | 1 | .3 | 55 | 4 | 1.2 | 101 | 1 | .3 |
| 55 | 1 | .3 | 56 | 3 | .9 | 102 | 1 | .3 |
| 56 | 2 | .6 | 57 | 1 | .3 | 107 | 1 | .3 |
| 57 | 2 | .6 | 58 | 1 | .3 | 108 | 2 | .6 |
| 58 | 1 | .3 | 59 | 1 | .3 | 111 | 1 | .3 |
| 59 | 4 | 1.2 | 60 | 1 | .3 | 113 | 2 | .6 |
| | | | | | | 114 | 1 | .3 |
| Mean = 45.88 | | | Mean = 49.36 | | | 115 | 2 | .6 |
| | | | | | | 116 | 1 | .3 |
| | | | | | | 119 | 1 | .3 |
| | | | | | | Mean = 95.24 | | |

Note: N = 33

Exact Frequencies of RWB, EWB, and SWB - Fake Bad Treatment Group

| RWB | | | EWB | | | SWB | | |
|---|---|---|---|---|---|---|---|---|
| Value | Freq | Percent | Value | Freq | Percent | Value | Freq | Percent |
| 10 | 8 | 3.0 | 10 | 6 | 2.2 | 20 | 4 | 1.4 |
| 11 | 1 | .4 | 13 | 1 | .4 | 22 | 1 | .4 |
| 12 | 2 | .7 | 15 | 2 | .7 | 25 | 4 | 1.4 |
| 13 | 1 | .4 | 17 | 1 | .4 | 28 | 2 | .7 |
| 15 | 2 | .7 | 18 | 2 | .7 | 36 | 1 | .4 |
| 22 | 1 | .4 | 21 | 1 | .4 | 39 | 1 | .4 |
| 25 | 1 | .4 | 25 | 1 | .4 | 50 | 2 | .7 |
| 26 | 1 | .4 | 28 | 1 | .4 | 57 | 1 | .4 |
| 27 | 1 | .4 | 29 | 1 | .4 | 65 | 1 | .4 |
| 28 | 1 | .4 | 37 | 1 | .4 | 69 | 1 | .4 |
| 32 | 1 | .4 | 41 | 1 | .4 | 75 | 2 | .7 |
| 33 | 1 | .4 | 42 | 1 | .4 | 78 | 1 | .4 |
| 38 | 1 | .4 | 43 | 2 | .7 | 80 | 2 | .7 |
| 39 | 2 | .7 | 45 | 1 | .4 | 87 | 1 | .4 |
| 45 | 1 | .4 | 49 | 2 | .7 | 88 | 1 | .4 |
| 48 | 1 | .4 | 51 | 1 | .4 | 93 | 1 | .4 |
| 50 | 1 | .4 | 53 | 1 | .4 | 96 | 1 | .4 |
| | | | 54 | 1 | .4 | | | |
| Mean = 22.59 | | | | | | Mean = 50.96 | | |
| | | | Mean = 28.37 | | | | | |

Note: N = 27

# APPENDIX J

## DEFINITION OF TERMS

## Definition of Terms

Spiritual Well-Being: Spiritual well-being is the affirmation of life in a relationship with God, self, community, and environment that nurtures and celebrates wholeness. Spiritual well-being may not be the same thing as spiritual health. It arises from an expression of it, much like the color of one's complexion and pulse rate are expressions of good health.

Religious Well-Being: Religious well-being refers to a perceived sense of well-being related to God.

Existential Well-Being: Existential well-being refers to a general sense of satisfaction and purpose in life with no reference to anything specifically religious.

Response Bias: An general term which includes any response pattern not accurately reflecting the person responding (Furnham, 1986a).

Response Style: A default pattern of responding when presented with ambiguous choices.

Social Desirability: An unconscious desire to be seen in a positive or negative light depending upon the circumstances (Paulhus, 1984, 1986; Edwards, 1970; Moody, 1988).

Self Deception: Any positively biased response that the respondent actually believes to be true (assumed to be in the service of protecting self-beliefs, including maintaining self-esteem) (Paulhus, 1986).

Response Set: A specific purposeful pattern of responding.

Faking: A deliberate conscious attempt to create an impression on a test (Usually aimed at winning a new job, or gaining favor for a purpose) (Paulhus, 1984, 1986; Edwards, 1970; Moody, 1988).

Impression Management: Conscious dissimulation of responses designed to create a favorable impression (can be "strategic", in order to win a new job, or "motivational", intended get the target to like them as a nice, healthy, upright person) (Paulhus, 1986).

# APPENDIX K

## DATA DEFINITION

## LEGEND FOR ABBREVIATIONS

```
DATA DEFINITION

DATA LIST FILE = 'NEAL-R' / ID 1-3 AGE 5-6 SEX 8 EDLEVEL 10
MARSTAT 12 SRALONE 14 SRPEOPLE 16 SRPROB 18 FINCOND 20 IMPREL 22
LIFESAT 24 FREQATT 26 FREQDEV 28 PROFESS 30 PROYEARS 32-33 SW01
35 SW02 36 SW03 37 SW04 38 SW05 39 SW06 40 SW07 41 SW08 42 SW09
43 SW010 44 SW011 45 SW012 46 SW013 47 SW014 48 SW015 49 SW016 50
SW017 51 SW018 52 SW015 53 SW020 54 TXGRP 56.

VARIABLE LABELS

SEX = SEX OF PARTICIPANT
AGE = AGE OF PARTICIPANT
EDLEVEL = EDUCATION LEVEL
MARSTAT = CURRENT MARITAL STATUS
SRALONE = DISLIKE/ENJOY BEING ALONE
SRPEOPLE = UNCOMFORTABLE/COMFORTABLE BEING WITH PEOPLE
SRPROB = FREQUENT/INFREQUENT PROBLEMS DEALING WITH PEOPLE
FINCOND = CHRONIC PROBLEMS WITH BILLS/BILLS ALWAYS PAID
IMPREL = NON IMPORTANCE/EXTREME IMPORTANCE OF RELIGION
LIFESAT = DISSATISFACTION/SATISFACTION WITH CURRENT LIFE
FREQATT = FREQUENCY OF CHURCH ATTENDANCE
FREQDEV = FREQUENCY OF PERSONAL DEVOTIONS
PROFESS = DO YOU PROFESS TO BE A CHRISTIAN?
PROYEARS = NUMBER OF YEARS PROFESSING TO BE A CHRISTIAN
TXGRP = TREATMENT GROUP

VALUE LABEL SAMPLE

SEX1 = MALE.  SEX2 = FEMALE
TXGRP1 = FAKE GOOD.  TXGRP2 = HONEST.  TSGRP3 = FAKE BAD

MISSING VALUES

SRALONE     (9)     SKPEOPLE    (9)     SRPROB      (9)
FINCOND     (9)     PROYEARS    (99)    SW01        (9)
SW02        (9)     SW03        (9)     SW04        (9)
SW05        (9)     SW06        (9)     SW07        (9)
SW08        (9)     SW09        (9)     SW010       (9)
SW011       (9)     SW012       (9)     SW013       (9)
SW014       (9)     SW015       (9)     SW016       (9)
SW017       (9)     SW018       (9)     SW019       (9)
SW020       (9)
```

# APPENDIX L

## RAW DATA

```
DATA LIST FILE = 'NEAL-R' / ID 1-3  AGE 5-6 SEX 8
EDLEVEL 10 MARSTAT 12 SRALONE 14 SRPEOPLE 16 SRPROB 18
FINCOND 20 IMPREL 22 LIFESAT 24 FREQATT 26 FREQDEV 28
PROFESS 30 PROYEARS 32-33 SWB1 35 SWB2 36 SWB3 37
SWB4 38 SWB5 39 SWB6 40 SWB7 41 SWB8 42 SWB9 43 SWB10 44
SWB11 45 SWB12 46 SWB13 47 SWB14 48 SWB15 49 SWB16 50
SWB17 51 SWB18 52 SWB19 53 SWB20 54 TXGRP 56.


001 41 1 3 2 4 3 6 3 3 4 3 2 3 05 56295333443544353633 1
002 46 1 5 7 4 6 5 5 5 6 4 1 2 28 44114413411441142411 1
003 51 1 6 7 6 6 6 6 6 6 2 5 1 99 66116232522552322522 2
004 27 1 4 3 1 6 5 1 4 4 4 2 2 10 45126459541611311611 2
005 23 1 6 1 2 4 5 5 5 5 7 6 3 17 16661666666111666663 3
006 39 1 3 1 3 5 2 4 5 4 7 5 4 18 56113433324552232522 3
007 36 1 3 2 2 4 6 6 6 5 6 4 4 23 66136612621661251611 1
008 22 2 2 1 3 2 2 5 2 4 4 3 2 99 56334522422642929633 1
009 39 2 3 2 4 3 4 6 4 6 2 2 2 25 11661166116116616166 3
010 33 1 1 7 2 6 6 6 4 5 5 4 2 02 66115611611661151611 3
011 34 1 3 2 2 6 6 5 6 4 6 4 3 27 11651265166116645666 3
012 27 2 1 1 2 6 6 6 4 4 2 1 3 15 11661264166116615156 3
013 28 2 2 2 3 6 5 6 5 5 4 2 2 14 11661166166116116156 3
014 43 1 4 2 5 6 5 6 6 2 4 6 4 43 56156235562253322222 3
015 35 1 6 2 2 6 5 6 6 6 6 6 4 15 33442255245225434344 3
016 27 1 4 2 5 4 5 3 2 4 1 1 2 27 11661166166116616166 3
017 38 1 3 2 2 5 5 6 3 6 1 1 2 99 11461166166116616166 3
018 40 1 5 2 6 1 6 6 5 3 6 3 4 15 12661266666166616166 3
019 23 1 1 6 3 4 6 6 2 4 2 2 2 05 11661166166116616166 3
020 34 1 5 2 5 3 5 2 3 5 6 1 2 05 32125324241632534632 3
021 41 2 1 3 3 5 6 6 3 4 2 2 2 20 25336454333623444433 3
022 32 1 3 2 3 4 5 5 6 5 5 6 4 15 11661166166116616166 3
023 28 1 4 2 3 5 6 6 3 6 3 2 1 99 45324532433541344532 3
024 19 1 2 1 2 6 5 5 2 5 1 1 1 99 36515242246133445651 3
025 46 1 5 2 3 4 6 3 6 4 5 4 2 25 11661161166116616166 3
026 33 1 2 2 3 5 2 6 6 4 5 3 4 12 13661366636411656464 3
027 36 1 3 2 3 5 5 6 6 5 7 5 4 12 11661365166115665166 3
028 32 1 3 1 4 5 6 2 4 3 6 3 4 10 24354335653555111533 3
029 46 1 6 2 3 5 4 6 1 2 1 1 2 35 13422316123116136646 3
030 28 2 1 2 2 6 6 5 4 5 2 3 3 12 44125533522652355621 3
031 50 1 4 7 3 6 6 5 4 5 2 1 2 50 11661166166116616166 3
032 39 1 3 2 5 6 6 5 5 5 5 2 2 39 46136523423652354632 3
033 31 1 5 2 4 3 5 6 1 3 3 1 1 99 33642254255424535999 3
034 24 1 4 2 4 5 5 5 6 5 7 6 4 05 11661265156514556253 3
035 35 1 2 2 2 6 5 5 3 5 2 1 1 99 11661166156114616161 3
036 20 1 3 1 1 6 5 2 2 5 3 1 2 17 25516653323622555652 3
037 53 1 4 6 2 5 5 4 1 5 1 1 1 99 16521662126612666562 3
```

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 038 | 30 | 1 | 4 | 1 | 3 | 6 | 5 | 5 | 6 | 6 | 6 | 5 | 4 | 20 | 11661266166116616166 | 3 |
| 039 | 21 | 2 | 2 | 3 | 4 | 3 | 5 | 2 | 2 | 3 | 1 | 2 | 2 | 99 | 34115143123512533441 | 3 |
| 040 | 36 | 1 | 2 | 2 | 4 | 3 | 6 | 6 | 6 | 5 | 6 | 5 | 4 | 06 | 66126514621652161611 | 3 |
| 041 | 35 | 1 | 4 | 2 | 5 | 3 | 3 | 5 | 6 | 6 | 5 | 6 | 4 | 27 | 13661164344333424344 | 3 |
| 042 | 39 | 1 | 5 | 2 | 4 | 3 | 5 | 6 | 5 | 5 | 5 | 2 | 2 | 25 | 65665555665666615166 | 3 |
| 043 | 22 | 1 | 1 | 2 | 4 | 2 | 2 | 4 | 5 | 4 | 3 | 2 | 4 | 05 | 54314362223532252521 | 3 |
| 044 | 22 | 1 | 3 | 1 | 2 | 5 | 4 | 3 | 3 | 3 | 3 | 1 | 1 | 99 | 11551156665425525256 | 3 |
| 045 | 47 | 1 | 1 | 2 | 2 | 6 | 5 | 5 | 5 | 5 | 3 | 2 | 2 | 99 | 11661166166116666166 | 3 |
| 046 | 48 | 1 | 4 | 3 | 4 | 3 | 5 | 6 | 2 | 2 | 3 | 3 | 1 | 99 | 11511355236513626562 | 3 |
| 047 | 39 | 2 | 6 | 2 | 6 | 6 | 5 | 3 | 6 | 6 | 6 | 5 | 4 | 32 | 11661166166116616166 | 3 |
| 048 | 25 | 1 | 3 | 1 | 3 | 6 | 6 | 5 | 6 | 6 | 4 | 4 | 2 | 15 | 11661163146114616165 | 3 |
| 049 | 31 | 1 | 1 | 7 | 5 | 3 | 4 | 6 | 6 | 5 | 3 | 3 | 3 | 10 | 41124423432651242622 | 3 |
| 050 | 51 | 1 | 6 | 1 | 4 | 6 | 6 | 4 | 6 | 1 | 1 | 6 | 2 | 42 | 66666666666666626666 | 3 |
| 051 | 38 | 1 | 3 | 7 | 5 | 4 | 4 | 6 | 4 | 5 | 3 | 3 | 4 | 15 | 11661166166116616166 | 3 |
| 052 | 21 | 1 | 4 | 1 | 5 | 5 | 6 | 3 | 4 | 4 | 3 | 2 | 2 | 16 | 22641365246126536256 | 3 |
| 053 | 40 | 2 | 3 | 2 | 3 | 3 | 5 | 6 | 5 | 2 | 6 | 5 | 4 | 32 | 16666166166114616156 | 3 |
| 054 | 36 | 1 | 1 | 2 | 4 | 4 | 4 | 6 | 5 | 5 | 1 | 2 | 3 | 10 | 12662355254354434344 | 3 |
| 055 | 24 | 1 | 4 | 6 | 4 | 1 | 1 | 1 | 1 | 6 | 1 | 1 | 1 | 99 | 14611466116611666661 | 2 |
| 056 | 38 | 1 | 3 | 2 | 5 | 3 | 6 | 3 | 4 | 4 | 3 | 2 | 2 | 26 | 44314343333543342632 | 2 |
| 057 | 27 | 2 | 1 | 2 | 4 | 3 | 3 | 6 | 2 | 5 | 3 | 1 | 1 | 99 | 34523342344432444443 | 2 |
| 058 | 52 | 1 | 1 | 2 | 1 | 6 | 6 | 4 | 6 | 5 | 7 | 6 | 4 | 02 | 66112511611562132611 | 2 |
| 059 | 48 | 1 | 2 | 2 | 5 | 4 | 4 | 6 | 1 | 6 | 1 | 1 | 1 | 99 | 99999991119661959661 | 2 |
| 060 | 42 | 1 | 2 | 3 | 1 | 6 | 4 | 5 | 6 | 2 | 5 | 6 | 4 | 23 | 66116515621662131611 | 2 |
| 061 | 50 | 1 | 6 | 2 | 2 | 5 | 6 | 5 | 2 | 6 | 3 | 2 | 2 | 50 | 26413641314621464641 | 2 |
| 062 | 31 | 1 | 3 | 2 | 2 | 5 | 5 | 5 | 6 | 5 | 6 | 3 | 3 | 31 | 45116211621661251511 | 2 |
| 063 | 36 | 1 | 5 | 2 | 4 | 5 | 6 | 6 | 2 | 4 | 1 | 1 | 1 | 99 | 22532255235423525355 | 2 |
| 064 | 22 | 1 | 3 | 1 | 4 | 5 | 4 | 4 | 5 | 5 | 5 | 4 | 2 | 22 | 56126423621652132611 | 2 |
| 065 | 40 | 1 | 3 | 2 | 5 | 3 | 4 | 5 | 4 | 5 | 4 | 2 | 3 | 17 | 52324533423542353532 | 2 |
| 066 | 31 | 1 | 2 | 1 | 3 | 5 | 5 | 3 | 2 | 3 | 2 | 1 | 2 | 25 | 33335245333434636443 | 2 |
| 067 | 28 | 2 | 2 | 1 | 4 | 5 | 5 | 6 | 6 | 5 | 6 | 6 | 2 | 28 | 66126212631661353611 | 2 |
| 068 | 20 | 1 | 4 | 2 | 3 | 4 | 5 | 5 | 5 | 5 | 4 | 3 | 2 | 99 | 46225522522552351621 | 2 |
| 069 | 27 | 1 | 3 | 1 | 5 | 2 | 5 | 5 | 1 | 1 | 1 | 1 | 1 | 99 | 16631364126312646466 | 2 |
| 070 | 40 | 1 | 6 | 2 | 3 | 5 | 5 | 6 | 4 | 5 | 5 | 2 | 4 | 40 | 55125322522552243522 | 2 |
| 071 | 32 | 2 | 2 | 2 | 5 | 6 | 6 | 6 | 4 | 6 | 2 | 1 | 2 | 32 | 46116633623651363631 | 2 |
| 072 | 37 | 1 | 1 | 2 | 6 | 2 | 3 | 5 | 6 | 3 | 4 | 1 | 2 | 04 | 12561555115225525255 | 2 |
| 073 | 33 | 1 | 1 | 7 | 4 | 5 | 6 | 5 | 3 | 5 | 3 | 2 | 2 | 10 | 43334343323632434633 | 2 |
| 074 | 20 | 1 | 3 | 1 | 5 | 2 | 3 | 6 | 1 | 5 | 3 | 1 | 1 | 99 | 16611363126412626551 | 2 |
| 075 | 52 | 1 | 1 | 7 | 3 | 5 | 5 | 6 | 6 | 6 | 7 | 5 | 4 | 32 | 56116512521661251612 | 2 |
| 076 | 21 | 2 | 3 | 2 | 5 | 5 | 5 | 6 | 5 | 5 | 6 | 5 | 2 | 05 | 66126522621662151611 | 2 |
| 077 | 21 | 1 | 1 | 1 | 2 | 5 | 4 | 3 | 3 | 5 | 4 | 2 | 2 | 21 | 36324431522651362631 | 2 |
| 078 | 21 | 1 | 1 | 1 | 2 | 6 | 5 | 4 | 1 | 6 | 2 | 1 | 1 | 99 | 16613461324631666661 | 2 |
| 079 | 40 | 1 | 3 | 2 | 2 | 6 | 6 | 6 | 6 | 5 | 6 | 5 | 4 | 20 | 66116412631662261611 | 2 |
| 080 | 27 | 1 | 3 | 1 | 4 | 6 | 5 | 6 | 4 | 4 | 4 | 1 | 3 | 27 | 45323333434433444231 | 2 |
| 081 | 27 | 1 | 1 | 1 | 5 | 2 | 3 | 2 | 3 | 3 | 4 | 1 | 1 | 99 | 44334355544434444443 | 2 |
| 082 | 23 | 1 | 2 | 1 | 2 | 5 | 6 | 5 | 4 | 5 | 4 | 1 | 1 | 99 | 56115232425651363632 | 2 |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 083 | 42 | 1 | 1 | 1 | 4 | 5 | 5 | 6 | 3 | 5 | 2 | 2 | 2 | 42 | 34316644333632454633 | 2 |
| 084 | 45 | 1 | 4 | 2 | 4 | 6 | 6 | 3 | 6 | 5 | 6 | 5 | 4 | 39 | 66116612611661151611 | 2 |
| 085 | 38 | 1 | 6 | 3 | 4 | 4 | 6 | 6 | 2 | 6 | 3 | 2 | 2 | 30 | 36412651116621656661 | 2 |
| 086 | 49 | 1 | 4 | 2 | 1 | 6 | 5 | 6 | 4 | 6 | 3 | 2 | 2 | 49 | 56116611611661163611 | 2 |
| 087 | 38 | 1 | 5 | 2 | 3 | 6 | 6 | 4 | 6 | 5 | 7 | 6 | 4 | 12 | 66136512511562151611 | 2 |
| 088 | 34 | 2 | 6 | 1 | 2 | 6 | 5 | 6 | 5 | 5 | 5 | 2 | 4 | 20 | 36316432422641353631 | 2 |
| 089 | 37 | 1 | 1 | 2 | 3 | 5 | 6 | 5 | 6 | 6 | 6 | 4 | 2 | 37 | 55116622611662142621 | 2 |
| 090 | 42 | 2 | 1 | 3 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 5 | 2 | 40 | 66116613611661151611 | 2 |
| 091 | 41 | 1 | 5 | 2 | 1 | 6 | 6 | 6 | 6 | 6 | 4 | 6 | 2 | 37 | 66116611611661151611 | 2 |
| 092 | 29 | 1 | 3 | 2 | 2 | 2 | 3 | 6 | 6 | 4 | 4 | 2 | 4 | 12 | 66136322221562251511 | 2 |
| 093 | 28 | 2 | 2 | 1 | 2 | 6 | 6 | 1 | 3 | 1 | 3 | 3 | 3 | 06 | 54124524651522252322 | 2 |
| 094 | 38 | 1 | 4 | 2 | 4 | 4 | 5 | 2 | 5 | 3 | 5 | 2 | 4 | 20 | 54136324541344232433 | 2 |
| 095 | 35 | 1 | 2 | 2 | 2 | 5 | 5 | 4 | 6 | 6 | 6 | 5 | 4 | 14 | 66126612621662151611 | 2 |
| 096 | 50 | 1 | 3 | 2 | 6 | 6 | 6 | 5 | 6 | 5 | 5 | 3 | 3 | 30 | 64136423631643323631 | 2 |
| 097 | 36 | 1 | 2 | 1 | 9 | 3 | 3 | 3 | 2 | 2 | 1 | 5 | 1 | 99 | 21324342243333434333 | 2 |
| 098 | 50 | 1 | 6 | 2 | 4 | 6 | 6 | 6 | 6 | 5 | 4 | 4 | 4 | 45 | 66126522611661362611 | 2 |
| 099 | 40 | 1 | 6 | 2 | 2 | 6 | 6 | 6 | 2 | 4 | 4 | 2 | 1 | 99 | 25313352225521655552 | 2 |
| 100 | 37 | 1 | 1 | 2 | 2 | 5 | 6 | 6 | 6 | 5 | 7 | 6 | 4 | 05 | 66116592611662161611 | 2 |
| 101 | 46 | 1 | 5 | 2 | 4 | 6 | 6 | 6 | 5 | 6 | 2 | 3 | 2 | 46 | 64134433443443333433 | 2 |
| 102 | 44 | 1 | 1 | 2 | 3 | 5 | 5 | 5 | 3 | 5 | 3 | 1 | 2 | 44 | 35224552323632344643 | 2 |
| 103 | 27 | 1 | 3 | 3 | 3 | 6 | 6 | 5 | 5 | 3 | 4 | 4 | 2 | 99 | 56116433611661363611 | 2 |
| 104 | 31 | 1 | 1 | 6 | 5 | 5 | 4 | 5 | 6 | 5 | 4 | 5 | 3 | 01 | 44316423421443253621 | 2 |
| 105 | 40 | 1 | 3 | 2 | 1 | 6 | 6 | 5 | 5 | 6 | 1 | 2 | 4 | 40 | 55464232343652622532 | 2 |
| 106 | 36 | 1 | 1 | 2 | 4 | 4 | 4 | 4 | 1 | 5 | 3 | 1 | 1 | 99 | 16631463136613646463 | 2 |
| 107 | 35 | 2 | 6 | 7 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 5 | 2 | 29 | 11661166166116616166 | 3 |
| 108 | 26 | 1 | 3 | 1 | 9 | 9 | 9 | 4 | 3 | 5 | 4 | 2 | 3 | 99 | 44116424533443242421 | 1 |
| 109 | 35 | 1 | 6 | 3 | 2 | 5 | 5 | 5 | 4 | 5 | 1 | 3 | 2 | 20 | 46116511612661262611 | 1 |
| 110 | 46 | 1 | 4 | 2 | 4 | 5 | 5 | 5 | 6 | 5 | 7 | 6 | 4 | 27 | 66116611611661151611 | 1 |
| 111 | 32 | 1 | 3 | 1 | 2 | 3 | 5 | 5 | 6 | 5 | 7 | 5 | 4 | 17 | 66116412621663541611 | 1 |
| 112 | 20 | 2 | 2 | 6 | 5 | 3 | 5 | 3 | 5 | 3 | 5 | 2 | 2 | 99 | 46135135342445943321 | 1 |
| 113 | 43 | 1 | 1 | 2 | 3 | 5 | 5 | 6 | 2 | 5 | 3 | 1 | 2 | 20 | 64134633523652233621 | 1 |
| 114 | 26 | 1 | 2 | 2 | 4 | 2 | 5 | 2 | 2 | 5 | 3 | 2 | 2 | 26 | 55215252225622564652 | 1 |
| 115 | 36 | 1 | 2 | 2 | 4 | 4 | 1 | 6 | 2 | 5 | 1 | 1 | 1 | 99 | 55334433332542334443 | 1 |
| 116 | 20 | 2 | 2 | 1 | 4 | 4 | 5 | 9 | 6 | 2 | 4 | 4 | 4 | 20 | 63136113641365451613 | 1 |
| 117 | 24 | 2 | 2 | 1 | 3 | 6 | 2 | 5 | 2 | 4 | 2 | 3 | 2 | 99 | 46323343324642554632 | 1 |
| 118 | 26 | 1 | 1 | 2 | 4 | 6 | 6 | 6 | 5 | 5 | 3 | 2 | 3 | 16 | 66116532611662151621 | 1 |
| 119 | 37 | 1 | 1 | 7 | 3 | 6 | 6 | 4 | 6 | 6 | 3 | 2 | 2 | 35 | 46316333433661111611 | 1 |
| 120 | 31 | 2 | 1 | 7 | 3 | 5 | 6 | 6 | 5 | 4 | 2 | 2 | 4 | 20 | 56126511611661162611 | 1 |
| 121 | 54 | 1 | 1 | 2 | 1 | 6 | 6 | 6 | 1 | 6 | 2 | 2 | 2 | 45 | 35313641334631444641 | 1 |
| 122 | 28 | 2 | 3 | 7 | 1 | 6 | 6 | 3 | 5 | 4 | 5 | 5 | 2 | 28 | 55126523521453242621 | 1 |
| 123 | 32 | 1 | 1 | 1 | 3 | 4 | 4 | 3 | 4 | 3 | 3 | 2 | 2 | 10 | 46146513521651151611 | 1 |
| 124 | 48 | 1 | 6 | 3 | 4 | 4 | 3 | 2 | 5 | 3 | 1 | 1 | 1 | 99 | 66133344344334434443 | 1 |
| 125 | 34 | 1 | 2 | 3 | 4 | 3 | 4 | 6 | 1 | 4 | 1 | 1 | 1 | 99 | 43334553334533544552 | 1 |
| 126 | 44 | 1 | 2 | 2 | 3 | 5 | 6 | 6 | 3 | 5 | 2 | 2 | 2 | 24 | 66115411622653362621 | 1 |
| 127 | 21 | 1 | 3 | 1 | 5 | 4 | 5 | 5 | 6 | 5 | 5 | 6 | 4 | 16 | 66126413621661242611 | 1 |
| 128 | 48 | 1 | 6 | 2 | 1 | 6 | 6 | 5 | 6 | 5 | 6 | 6 | 4 | 15 | 66116612611661162611 | 1 |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 129 | 29 | 2 | 4 | 2 | 4 | 6 | 5 | 4 | 6 | 6 | 5 | 6 | 4 | 13 | 26116621611661262611 | 1 |
| 130 | 23 | 2 | 1 | 3 | 1 | 6 | 6 | 4 | 6 | 6 | 3 | 5 | 4 | 05 | 66116311621661162611 | 1 |
| 131 | 26 | 1 | 2 | 2 | 2 | 4 | 4 | 5 | 3 | 5 | 3 | 2 | 2 | 09 | 66116311621661162611 | 1 |
| 132 | 22 | 1 | 5 | 1 | 2 | 6 | 5 | 6 | 4 | 5 | 4 | 1 | 2 | 22 | 55323433423622213522 | 1 |
| 133 | 20 | 1 | 3 | 1 | 2 | 5 | 5 | 6 | 1 | 5 | 3 | 1 | 1 | 99 | 61125521615661161611 | 1 |
| 134 | 49 | 1 | 1 | 3 | 5 | 4 | 4 | 6 | 3 | 4 | 2 | 1 | 2 | 99 | 66126512511661131611 | 1 |
| 135 | 50 | 1 | 6 | 2 | 2 | 6 | 5 | 6 | 6 | 6 | 5 | 3 | 2 | 50 | 55116611626661231611 | 1 |
| 136 | 50 | 1 | 1 | 7 | 3 | 4 | 4 | 4 | 1 | 5 | 1 | 1 | 1 | 99 | 56216515552625212521 | 1 |
| 137 | 27 | 2 | 1 | 2 | 5 | 6 | 6 | 4 | 6 | 5 | 7 | 6 | 4 | 04 | 66136413611663151611 | 1 |
| 138 | 28 | 1 | 5 | 2 | 2 | 6 | 5 | 6 | 2 | 5 | 4 | 3 | 2 | 22 | 62226212152623362522 | 1 |
| 139 | 41 | 1 | 4 | 2 | 6 | 6 | 6 | 6 | 6 | 5 | 5 | 6 | 4 | 33 | 66116422621652161611 | 1 |
| 140 | 29 | 1 | 1 | 1 | 5 | 1 | 3 | 6 | 5 | 6 | 3 | 2 | 2 | 21 | 46325633412641263621 | 1 |
| 141 | 40 | 1 | 5 | 2 | 3 | 6 | 6 | 6 | 4 | 5 | 6 | 4 | 2 | 99 | 56116432433633352632 | 1 |
| 142 | 36 | 2 | 3 | 1 | 6 | 3 | 5 | 6 | 3 | 5 | 1 | 4 | 2 | 20 | 56116611611661161611 | 1 |
| 143 | 25 | 1 | 3 | 6 | 3 | 6 | 4 | 6 | 2 | 5 | 1 | 1 | 1 | 99 | 34113342344633454642 | 1 |
| 144 | 23 | 2 | 3 | 3 | 3 | 6 | 6 | 5 | 2 | 4 | 3 | 4 | 2 | 07 | 44334245343634445642 | 1 |
| 145 | 20 | 1 | 4 | 1 | 3 | 5 | 5 | 6 | 4 | 5 | 3 | 2 | 1 | 99 | 33324346333532454542 | 1 |
| 146 | 21 | 1 | 6 | 1 | 3 | 5 | 5 | 2 | 2 | 4 | 4 | 2 | 1 | 99 | 66116511621661252633 | 1 |
| 147 | 26 | 1 | 2 | 1 | 5 | 3 | 4 | 4 | 2 | 5 | 1 | 2 | 1 | 99 | 24513342325432534441 | 1 |
| 148 | 28 | 1 | 3 | 1 | 5 | 4 | 6 | 6 | 6 | 6 | 1 | 6 | 2 | 07 | 46214611613562343531 | 1 |
| 149 | 41 | 1 | 5 | 2 | 2 | 6 | 6 | 6 | 2 | 6 | 2 | 1 | 2 | 41 | 46215633423622323532 | 1 |
| 150 | 37 | 1 | 5 | 7 | 5 | 6 | 6 | 6 | 4 | 5 | 2 | 2 | 2 | 35 | 63216632623662664632 | 1 |
| 151 | 42 | 1 | 6 | 2 | 3 | 5 | 4 | 6 | 6 | 5 | 5 | 5 | 4 | 17 | 66116611611661161611 | 1 |

# APPENDIX M

## VITA

***NEAL A. BOLIOU, M.A.***
**November 17, 1988**

Doctoral Candidate, Western Conservative Baptist Seminary, Portland, Oregon. Anticipated graduation date - April 30, 1989.

***ADDRESS:*** 1824 SE TAYLOR
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***PERSONAL:*** DOB: October 16, 1956, Long Beach Ca.
Married, no children. Hair: Black
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***EDUCATION:***

| | |
|---|---|
| **M.A. Clinical Psychology**<br>Western Conservative Baptist Seminary,<br>Portland, Oregon | May 1985 |
| **B.S. Psychology**<br>Western Baptist College,<br>Salem, Oregon | Jun 1983 |

***EXPERIENCE:***

| | |
|---|---|
| Intern/Resident, Dammasch State Hospital, Wilsonville, Oregon. Assessment of CMI's, group psychotherapy, 1:1 psychotherapy, neuropsychological screening, treatment team consultant. | Sep 1988 Present |
| Counselor, Human Affairs International, Portland, Oregon. 1:1 counseling, marriage and family counseling. | Jan 1988 Sep 1988 |
| Counselor, Rolling Hills Community Church, Tualatin, Oregon. 1:1 counseling, marriage and family counseling. | Jan 1988 Sep 1988 |

| | | |
|---|---|---|
| | Intern, Portland Adventist Medical Center, Portland, Oregon. Diagnostics, psychosocial evaluations, personality assessment, brief psychotherapy, inpatient group therapy on secure and open wards, six month rotation on advanced eating disorder unit. | Aug 1986 Aug 1987 |
| | Psychiatric Aide, Children's Ward, Oregon State Hosptial, Salem, Oregon. 1:1 patient management with severely emotionally disturbed children, age 14 and under. | May 1986 Aug 1986 |
| | Counselor, (Practicum), Christian Counseling Services, Gresham, Oregon. Sex offenders, marriage and family, personality assessment. | Jan 1986 Aug 1986 |
| | Group Leader, Western Conservative Baptist Seminary. Adult normals. | Sep 1985 May 1986 |
| | Counselor, (Practicum), George Fox College, Newberg, Oregon. 1:1 psychotherapy, personality assessment. | Apr 1984 Dec 1984 |
| | Counselor, (Practicum), Western Baptist College, Salem, Oregon. (Practicum Credit Sep 83-Jun 84) 1:1 psychotherapy, personality assessment. | Feb 1982 Jun 1985 |
| ***MILITARY:*** | Oregon Air National Guard Worldwide telecommunications. Section Supervisor. | May 1981 Present |
| | Active Duty U.S.A.F. Law Enforcement, Desk Sergeant, Patrolman, S.W.A.T. member, Flight Chief. | Oct 1974 Oct 1980 |
| ***HONORS:*** | National Dean's List 1982 and 1983<br>Who's Who American Universities and Colleges 1982-83<br>Delta Epsilon Chi Award<br>U.S. Air Force Commendation Medal with Oak Leaf Cluster | |
| ***HOBBIES:*** | Soccer, softball, singing, reading, raquetball, golf, skiing. | |