

Andrews University

Digital Commons @ Andrews University

Dissertations

Graduate Research

1993

The Correlation of Personality Factors with Spiritual Gifts Clusters

Soo Dong Choi
Andrews University

Follow this and additional works at: <https://digitalcommons.andrews.edu/dissertations>



Part of the [Biblical Studies Commons](#)

Recommended Citation

Choi, Soo Dong, "The Correlation of Personality Factors with Spiritual Gifts Clusters" (1993). *Dissertations*. 281.

<https://digitalcommons.andrews.edu/dissertations/281>

<https://dx.doi.org/10.32597/dissertations/281/>

This Dissertation is brought to you for free and open access by the Graduate Research at Digital Commons @ Andrews University. It has been accepted for inclusion in Dissertations by an authorized administrator of Digital Commons @ Andrews University. For more information, please contact repository@andrews.edu.



Seek Knowledge. Affirm Faith. Change the World.

Thank you for your interest in the

**Andrews University Digital Library
of Dissertations and Theses.**

*Please honor the copyright of this document by
not duplicating or distributing additional copies
in any form without the author's express written
permission. Thanks for your cooperation.*

INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps. Each original is also photographed in one exposure and is included in reduced form at the back of the book.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

U·M·I

University Microfilms International
A Bell & Howell Information Company
300 North Zeeb Road, Ann Arbor, MI 48106-1346 USA
313 761-4700 800 521-0600

Order Number 9325652

The correlation of personality factors with spiritual gifts clusters

Choi, Soo Dong, Ph.D.

Andrews University, 1993

U·M·I
300 N. Zeeb Rd.
Ann Arbor, MI 48106

Andrews University
School of Education

THE CORRELATION OF PERSONALITY FACTORS
WITH SPIRITUAL GIFTS CLUSTERS

A Dissertation
Presented in Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy

by
Soo Dong Choi
March 1993

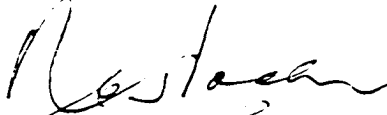
THE CORRELATION OF PERSONALITY FACTORS
WITH SPIRITUAL GIFTS CLUSTERS

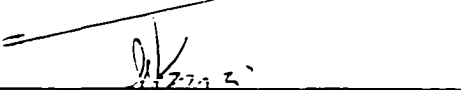
A dissertation
presented in partial fulfillment
of the requirements for the degree
Doctor of Philosophy

by


Soo Dong Choi

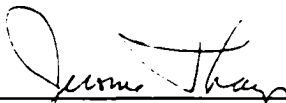
APPROVAL BY THE COMMITTEE:


Chair: Roy C. Naden


Member: Jimmy Kijai


Member: Bruce L. Bauer


External: Roger L. Dudley


Director of Doctoral Programs


Dean, School of Education

March 5, 1993
Date approved

ABSTRACT

THE CORRELATION OF PERSONALITY FACTORS
WITH SPIRITUAL GIFTS CLUSTERS

by

Soo Dong Choi

Chair: Roy C. Naden

ABSTRACT OF GRADUATE STUDENT RESEARCH

Dissertation

Andrews University

School of Education

Title: THE CORRELATION OF PERSONALITY FACTORS WITH
SPIRITUAL GIFTS CLUSTERS

Name of Researcher: Soo Dong Choi

Name and degree of faculty chair: Roy C. Naden, Ed.D.

Date completed: March 1993

Problem

Research had been undertaken to investigate the possible correlation between temperaments and spiritual gifts, and psychological types and spiritual gifts, but fewer correlations than anticipated were identified.

The purpose of this study was to explore hypothetical predictive models regarding the correlation between 16 personality factors and five spiritual gifts clusters.

Method

Two instruments were used to measure personality factors and spiritual gifts clusters: The Sixteen

Personality Factor Questionnaire (16 PF) and the New Spiritual Gifts Inventory (NSGI). 840 subjects were included in this study--students and their spouses of the Seventh-day Adventist Theological Seminary, Berrien Springs, Michigan, and undergraduate students of Philippine Union College, Silang, Philippines. Two null hypotheses were formulated and tested statistically by multiple regression analysis.

Findings

For the seminarian sample, personality factors H+, M+, and N+ predicted the teacher cluster; personality factors H+, Q₃+, B-, G+, and Q₁- predicted the shepherd/evangelist cluster; personality factors Q₄-, G+, B-, H+, O+, and Q₃+ predicted the supporter cluster; personality factors H+, Q₄-, and E+ predicted the counselor cluster; and personality factors H+, G+, O-, E+, and Q₃+ predicted the leader cluster.

For the Filipino sample, personality factors H+, Q₃+, F-, and A+ predicted the teacher cluster; personality factors H+, Q₃+, F-, G+, and A+ predicted the shepherd/evangelist cluster; personality factors Q₃+ and H+ predicted the supporter cluster; and personality factors Q₃+, H+, and O- predicted the leader cluster.

Conclusions

This study shows that personality factors may be used to predict probable giftedness. The fact that the best prediction models of the gifts clusters are unique for the

two samples implies that one cannot generalize findings
cross-culturally.

TABLE OF CONTENTS

| | |
|-----------------------------------------------------|------|
| LIST OF TABLES | vi |
| ACKNOWLEDGMENTS | viii |
| Chapter | |
| I. INTRODUCTION | 1 |
| Statement of the Problem | 8 |
| Purpose of the Study | 9 |
| Hypotheses | 10 |
| Hypothesis 1 | 10 |
| Hypothesis 2 | 10 |
| Theoretical Framework | 10 |
| 16 Personality Factors | 12 |
| Spiritual Gifts and Personality Factors | 13 |
| Teacher Cluster | 14 |
| Shepherd/Evangelist Cluster | 15 |
| Supporter Cluster | 16 |
| Counselor Cluster | 18 |
| Leader Cluster | 19 |
| Significance of the Study | 21 |
| Delimitation of the Study | 21 |
| Definition of Terms | 22 |
| Outline of the Study | 27 |
| II. REVIEW OF LITERATURE | 28 |
| Spiritual Gifts | 28 |
| The Term "Spiritual Gifts" | 29 |
| The Nature and Purpose of Spiritual Gifts | 34 |
| Definition of "Spiritual Gifts" | 35 |
| Natural Talents and Spiritual Gifts | 37 |
| Classifying Spiritual Gifts | 38 |
| Discovering Spiritual Gifts | 41 |
| Personality Factors | 44 |
| Factor Analysis | 46 |
| The Trait Approach to Personality | 48 |
| Major Source Traits | 50 |
| The Specification Equation | 51 |
| Personality of Religious Individuals | 53 |
| Summary | 57 |

| | |
|-------------------------------------------------------------------|-----|
| III. METHODOLOGY | 59 |
| Type of Study | 59 |
| Population and Sample | 59 |
| Instrumentation | 60 |
| Sixteen Personality Factor Questionnaire | 61 |
| Formation | 61 |
| Reliability | 62 |
| Validity | 63 |
| The New Spiritual Gifts Inventory | 68 |
| Formation | 68 |
| Reliability | 69 |
| Validity | 70 |
| Procedure for Collecting Data | 72 |
| Hypotheses and Statistical Analysis | 73 |
| Hypothesis 1 | 73 |
| Hypothesis 2 | 74 |
| Summary | 75 |
| IV. PRESENTATION AND ANALYSIS OF DATA | 76 |
| Description of Sample | 76 |
| Testing of Hypotheses and Discussion of the Findings | 78 |
| Hypothesis 1 | 85 |
| Teacher Cluster | 85 |
| Shepherd/Evangelist Cluster | 87 |
| Supporter Cluster | 89 |
| Counselor Cluster | 92 |
| Leader Cluster | 93 |
| Summary of Testing Hypothesis 1 | 96 |
| Hypothesis 2 | 98 |
| Teacher Cluster | 98 |
| Shepherd/Evangelist Cluster | 99 |
| Supporter Cluster | 101 |
| Counselor Cluster | 103 |
| Leader Cluster | 104 |
| Summary of Testing Hypothesis 2 | 106 |
| Summary of Testing Hypotheses | 108 |
| Chapter Summary | 111 |
| V. SUMMARIES, CONCLUSIONS, AND RECOMMENDATIONS | 113 |
| Summaries | 113 |
| The Purpose | 113 |
| Review of Related Literature and Research | 114 |
| Methodology | 116 |
| Findings of the Study | 117 |
| Hypothesis 1 | 117 |
| Hypothesis 2 | 118 |
| Conclusions | 119 |
| Implications | 122 |

| | |
|---------------------------------------------------|-----|
| Recommendations | 124 |
| For Further Study | 124 |
| APPENDICES | 126 |
| A. Correspondence | 127 |
| B. Data on the 836 Subjects | 130 |
| C. Correlation Matrices | 148 |
| D. The 20 Statements of the <u>NSGI</u> | 151 |
| BIBLIOGRAPHY | 153 |
| VITA | 175 |

LIST OF TABLES

| | | |
|-----|----------------------------------------------------------------------------------------------------------------------------|----|
| 1. | Intercorrelation between Six Test Variables | 47 |
| 2. | Major Source Traits on the Sixteen Personality Factor Tests | 52 |
| 3. | <u>16 PF</u> Dependability Coefficients | 64 |
| 4. | <u>16 PF</u> Stability Coefficients | 64 |
| 5. | Reliability Coefficients (Test-Retest) for Each Item and Spiritual Gifts Cluster | 70 |
| 6. | <u>NSGI</u> Items with Factor Loadings (>.5) by Each Factor (N = 859) | 71 |
| 7. | Agreements of Experts for <u>NSGI</u> | 72 |
| 8. | Means and Standard Deviation for the Variables of the Seminarian Sample (N = 437) | 79 |
| 9. | Means and Standard Deviation for the Variables of the Filipino Sample (N = 399) | 80 |
| 10. | Best Prediction Model With the Teacher Cluster as Dependent Variable for the Seminarian Sample | 86 |
| 11. | Best Prediction Model With the Shepherd/Evangelist Cluster as Dependent Variable for the Seminarian Sample | 88 |
| 12. | Best Prediction Model With the Supporter Cluster as Dependent Variable for the Seminarian Sample | 90 |
| 13. | Best Prediction Model with the Counselor Cluster as Dependent Variable for the Seminarian Sample | 92 |
| 14. | Best Prediction Model With the Leader Cluster as Dependent Variable for the Seminarian Sample | 94 |

| | | |
|-----|--------------------------------------------------------------------------------------------------------------------------|-----|
| 15. | Best Prediction Personality Factors for the Spiritual Gifts Clusters among the Seminarian Sample | 97 |
| 16. | Best Prediction Model With the Teacher Cluster as Dependent Variable for the Filipino Sample | 99 |
| 17. | Best Prediction Model With the Shepherd/Evangelist Cluster as Dependent Variable for the Filipino Sample | 100 |
| 18. | Best Prediction Model With the Supporter Cluster as Dependent Variable for the Filipino Sample | 102 |
| 19. | Best Prediction Model With the Counselor Cluster as Dependent Variable for the Filipino Sample | 103 |
| 20. | Best Prediction Model With the Leader Cluster as Dependent Variable for the Filipino Sample | 105 |
| 21. | Best Prediction Personality Factors for the Spiritual Gifts Clusters among the Filipino Sample | 107 |
| 22. | Comparison of Personality Factors That Best Predict Spiritual Gifts Clusters | 108 |

ACKNOWLEDGMENTS

"How can I repay the Lord for all his goodness to me?" (Ps 116:12) Words cannot express the depth of gratitude that I owe to my supporters throughout my study. Without their contribution, this dissertation would not have been produced. With a thankful heart, I acknowledge the following:

The Lord for his providence to lead me all the way to this point;

My father and mother, Mr. and Mrs. Hyung Shik Choi, for their sacrifice and prayer;

Dr. Roy C. Naden for his guidance, encouragement, trust, concern, and support;

Dr. Jimmy Kijai for his patience and commitment;

Dr. Bruce L. Bauer for his insight and input;

Professor H. Peter Swanson for his advice and effort;

Dr. David Faehner for the financial arrangement;

Dr. Miriam S. Tumangday for her courtesy;

My wife, Kyung Ja (Grace), and children Eun Jin (Jinny) and Eun Suk (Scott) for being my "beloved."

CHAPTER I

INTRODUCTION

Because of the need for a more comprehensive understanding of human nature than can be gained by the isolated study of one discipline, there have been many attempts in recent years toward greater interaction among disciplines. Psychology and theology have been affected by this trend, though this development has not always been welcomed by those concerned. Critics argue that Christians should not mix biblical remarks with modern psychology, because,

the two fields are so different that they have nothing in common and hence are irreconcilable. They represent Christian and non-Christian systems which have differing and at times conflicting assumptions, views of truth, sources of authority, concepts, and language. Psychology, it might be claimed, is a science; theology is a philosophical religious system. (Collins, 1981, p. 15)

However, theology and psychology have some subject matter in common and may offer some joint understanding to the human race. "Both study the attitudes and behavior of the human race. In this sense, they are both anthropologies" (Cater & Narramore, 1979, p. 15). Christians who believe that God is the source of all truth assume that God "has revealed a vast amount of truth about the nature and functioning of the human personality," not only through

Scripture, but also through psychology (Carter & Narramore, 1979, p. 15).

Although there are significant differences among them, those who value the insights of both psychology and theology place at least some trust in the findings of psychology (e.g., Collins, 1988; Ellens, 1983; Farnsworth, 1981; Koteskey, 1980; McLemore, 1982; Narramore, 1984; Van Leeuwen, 1985). For Christians, the key to relating psychology to Christianity lies in the assumption that God not only created the world, but is actively involved in it. Thus, the study of God's creation, and particularly the study of humans, is in part the study of God. Berkhouwer (1962) wrote: "Today, more than at any time, the question, 'What is man?' is at the center of theological and philosophical concern" (p. 9).

Cater and Narramore (1979) noted:

the Christian's study of human beings may not be an option but one that is imperative. . . . Because of this, the study of the relationship of the Word of God to the findings of psychology should not be restricted to psychologists. Theologians, pastors, and Christian educators, as well as students of psychology, have much to gain from a careful study of the relationships between scriptural revelation and psychological fact and theory. (pp. 18-19)

Cater and Narramore (1979) also stated:

In some instances, the data of psychology fits well with current theological understanding. In other cases they raise questions that theology has yet to face. And sometimes they present a direct challenge to theological affirmations. But in every case, the church has a responsibility to respond to the claims of psychology by restudying, clarifying, reaffirming, enlarging, or correcting its understanding. (p. 19)

In many areas of psychology, Scripture has something to say that could influence the understanding of psychological research, theory, and practice. This is implied by the term *integration*. Psychology raises questions and may provide data that bear on the theological understanding of the human being; theology expresses divinely revealed truths that speak to psychology's developing view of humanity.

Psychologists and theologians frequently study different aspects of the same phenomena or the same phenomenon from different perspectives. Conflicts between theology and psychology may better be seen as conflicts between theory and interpretation of the facts, rather than between the facts themselves.

Several studies in the 1980s (Bryant, 1983; Joachim, 1984; Keirse & Bates, 1984; Lawrence, 1982; Mamchur, 1984; Myers & Myers, 1980; Phoon, 1986) on psychological types, temperaments, and spiritual gifts have arisen out of a growing interest in relating theology or Christianity with psychology under the hypothesis that God is present in both disciplines and that the truths of both should not conflict.

It has long been apparent that people differ in temperament, or personality characteristics. The earliest known explanation for these individual differences is the *humoral theory*, proposed by Hipocrates about 400 B.C. (Bruno, 1980, p. 377) and based on then common medical beliefs that had originated with the ancient Greeks. The body was thought

to contain four humors, or fluids. People were classified according to the predominance of one of these humors in their system.

Although later biological investigations discredited this theory, the notion that people could be divided into different personality types persisted long afterward. Theories of personality type attempt to assign people to different categories, which vary in accordance with the theory. For example, Freud's theory, which maintains that people go through several stages of psychosexual development, predicts the existence of different types of people who have problems associated with each of these stages.

Personality types are very useful in formulating hypotheses, because when a theorist is thinking about personality variables it is easy to think of extreme cases. However, most modern investigators (e.g., G. Allport; R. Cattell; H. Eysenck) reject the notion that individuals can be assigned to discrete categories; instead, they generally conceive of individual differences as quantitative, not qualitative. Rather than classify people by categories, or types, most investigators prefer to measure the degree to which an individual expresses a particular personality trait.

Several devices to measure personality types or psychological types through the notion of extroversion and introversion are: the Guilford-Zimmerman Temperament Survey (GZTS) (1949), Eysenck Personality Questionnaires (EPQ) (Eysenck & Eysenck, 1968), Sixteen Personality Factor

Questionnaire (16 PF) (Cattell, Saunders, & Stice, 1949), Comrey Personality Scales (CPS) (Comrey, 1970), Psychological Screening Inventory (PSI) (Lanyon, 1973), Classroom Behavior Inventory (CBI) (Schaefer, 1971), Minnesota Multiphasic Personality Inventory (MMPI) (Dahlstrom & Welsh, 1972; Hathaway & McKinley, 1967), Interpersonal Style Inventory (ISI) (Lorr & Youniss, 1973), California Psychological Inventory, (CPI), (Gough, 1975), and Myer-Briggs Type Indicator (MBTI) (Briggs & Myers, 1977). These objective personality tests are usually self-reporting tests that can be scored with statistical confidence. There are several studies to investigate the interrelationships between these inventories (Hundleby & Conner, 1968; LaForge, 1962; Minnick, 1969).

The concept of spiritual gifts is also at least as old as the history of the Jewish race. Even though the Old Testament does not contain comprehensive lists of spiritual gifts as does the New Testament, the doctrine of the Spirit was gradually revealed by God to Israel over her long history. Bezalel and Oholiab were "filled with the Spirit of God, . . . with knowledge and all craftsmanship" (Exod 31:3,6). The Spirit of the LORD came upon Othniel to "judge" Israel (Judg 3:10); the Spirit of the LORD came upon Samson giving him strength (Judg 14:6). Joseph's prudence is proof of the presence of the Spirit of God (Gen 41:38), and prophetic activity of whatever kind, throughout the whole of the Old Testament, is seen as the work of the Spirit (1 Sam

10:6). In general, all "gifts" are thought of as spiritual in the Old Testament.

Although there may be no systematic lists, various spiritual gifts are just as evident in the gospels as after Pentecost, not only in the person of the Messiah, but also in the life of His disciples (Matt 10:1). In the gospels, as later in the New Testament, the Spirit Himself is the greatest "spiritual gift," whether in the synoptics (Luke 11:13) or the fourth gospel (John 20:22).

But Pentecost marks a new spiritual experience, and Acts contains an account of the manifestations of numerous spiritual gifts. In addition to tongues and interpretation, Acts 3:1-10 shows the exercise of the power of healing. The gift of "discernment of spirits" was exercised by Peter (5:3). Philip exorcised demons (8:7); Peter raised the dead (9:40). In the second half of Acts, Paul raised the dead (20:9-12); cast out demons (16:18); had the power of healing (14:10); and was bitten by a snake and suffered no ill effects (28:5). Paul also showed discernment of spirit (13:9, 10).

There are three major passages elaborating spiritual gifts for ministry in the New Testament: Rom 12:1-4 (the preparation for ministry through spiritual gifts), 1 Cor 12:4-7 (the process by which an ongoing ministry through spiritual gifts is established), and Eph 4 (the purpose of spiritual gifts) (Naden, 1989).

The reason God bestowed on those first-century Christians such rich spiritual gifts can be understood through three aspects: they did not yet have the benefit of the NT canon, leadership was scarce, and traditions were also not yet established. Whereas these were immediate and temporary reasons, the more important and permanent reason was to "equip the church to minister to the needs of others both in the church through nurture, and in the community around the church through evangelism, to the glory of God and the Christian growth of each other" (Naden, 1989, p. 35-39). These twin activities are still the main reasons why God continues to bless modern Christians richly with His spiritual gifts.

Biblical scholars have identified the New Testament's named spiritual gifts and some instruments have been developed to measure these spiritual gifts (e.g., Jones, 1985; Kinghorn, 1981), but it is the New Spiritual Gifts Inventory (NSGI, Naden, 1990b) that "identifies Christians' clusters of probable giftedness rather than specific narrowly-defined gifts" (Naden, 1989, p. xii). This empirically developed instrument allows "individuals to experiment with a variety of approaches within a cluster in order to establish with certainty the specific ministry or ministries for which the Lord has already equipped them" (Naden, 1989, p. xii).

Statement of the Problem

Some correlational studies have been conducted between psychology types and religious issues (Carskadon, 1981; Harbaugh, 1984) and between personality factors and educational issues (Ayers & Bashaw, 1969; Goldschmid, 1967; Long, 1970; Trent, 1968; Turner, 1968).

Joachim's study (1984) especially focused on the relationship of spiritual gifts with temperament types, and Phoon (1986) studied the correlation of Jungian psychological types and spiritual gifts. These studies found that there are significant correlations between psychological types and spiritual gifts, and between temperaments and spiritual gifts. However, far fewer correlations than anticipated were identified and it was hypothesized that the instruments utilized in these studies may not have been adequate for the research questions.

This present study proposed to examine the nature of the relationship between personality factors and five spiritual gifts clusters.

A preliminary study (Naden, Swanson, & Thayer, 1992) examined the possible correlation between the personality factors of the 16 PF and spiritual gifts clusters of the NSGI and hypothesized five predictive models. The strength of the correlations suggested that a full-scale study was warranted.

In this study, the personality factors of the Sixteen Personality Factor Questionnaire (16 PF), one of the most widely used and accepted instruments for the global

assessment of normal personality, is correlated with five clusters of spiritual gifts identified by the New Spiritual Gifts Inventory (NSGI).

Purpose of the Study

The purpose of this study was to explore hypothetical predictive models regarding the correlation that exists between the personality factors and five spiritual gifts clusters on the basis of two empirically developed instruments, the Sixteen Personality Factor Questionnaire and the New Spiritual Gift Inventory, in two contrasting cultures. Specifically, this study examined the following research questions:

1. Can pastors hypothesize ministries for members on the basis of personality factors when members have had no opportunity to demonstrate giftedness in a specific ministry?
2. What is the nature of the relationship between spiritual gifts clusters and personality factors among seminary students and their spouses at Andrews University in Berrien Springs, Michigan?
3. What is the nature of the relationship between spiritual gifts clusters and personality factors among Filipino undergraduate students at Philippine Union College?
4. Are there differences and/or similarities between Filipino undergraduate and seminary students in the United States with respect to the relationship(s) between spiritual gifts clusters and personality factors?

Hypotheses

The following research hypotheses were formulated in relation to the above research questions:

Hypothesis 1

Among the seminarian respondents, there is a significant multiple correlation between each of the spiritual gift clusters and personality factors indicated by the 16 PF.

Hypothesis 2

Among the Filipino respondents, there is a significant multiple correlation between each of the spiritual gift clusters and personality factors indicated by the 16 PF.

Theoretical Framework

According to Paul, the gift of the Spirit is given to each individual in the body of Christ (1 Cor 12:7,11). But no single gift is given to everyone (1 Cor 12:29,30). Although every Christian has at least one spiritual gift (1 Cor 12:7; McRae, 1976, p. 31), God has not limited His blessings only to Christians. Based on the original bestowment in Eden, God has given some gifts to all humanity in the form of genetically transmitted natural talents.

The distinction between natural talents that are innate in humanity from birth and spiritual gifts that are bestowed when one is born again is not directly addressed in

Paul's writings. But many biblical scholars believe that spiritual gifts are much more than natural or genetically transferred talents (Bittlinger, 1967; Gangel, 1983; Gee, 1972a; Neighbor, 1974). They argue that natural talents contribute to human society, but do not constitute a spiritual ministry. In contrast, spiritual gifts are manifested and utilized for the glory of God. On the other hand, others contend that natural talents are not lost at the time of conversion, but rather, from the moment of new birth, through the enriching power of the Holy Spirit, natural abilities become spiritual gifts and are thereafter used not to glorify self, but to glorify God (Barnette, 1965; Griffiths, 1978; Naden, 1989; Schweizer, 1961; Stott, 1964; Wolvoord, 1975).

Those who view the conversion experience as the act of giving one's naturally inherited talents and environmentally influenced personality to God, and then receiving them back as spiritual gifts, are comfortable with the idea that God's original gift of life and talents "at birth" are honored in the "new birth" with a perfect match of personality and service to Him (Barnette, 1965; Griffiths, 1978; Naden, 1989; Schweizer, 1961; Stott, 1964; Walvoord, 1975). This is the basis to hypothesize that giftedness (i.e., avenues of Christian Service) may be identified through an analysis of personality factors alone without the utilization of a giftedness inventory on the assumption that God honors who the individual is intrinsically, as seen

through his personality, when He "gifts" or commissions him/her for acts of service for Him.

16 Personality Factors

The 16 PF is one of the most useful personality tests currently available. The 16 PF is a questionnaire designed to measure normal dimensions of personality. The test provides 16 basic scores for adults.

The 16 PF has accumulated valuable social validation data in the form of profiles for about 30 occupations (Cattell, Day, & Meeland, 1956). Some studies on the relationship between 16 PF and ministry are available (Banks, 1966; Chalmers, 1969; Childers & White, 1966). Chalmers (1969) utilized the 16 PF to determine whether there were systematic differences among personality traits which correlate with measures of performance among Seventh-day Adventist clergymen, and concluded that "there were significant differences in eleven out of sixteen trait means between the ministers and the general adult population" (p. 27). Banks (1966) utilized the 16 PF to investigate selected social and psychological variables relevant to satisfaction with the role of minister among the Seventh-day Adventist seminary students and concluded that three personality factors (H, N, and Q₄) were significantly related to role satisfaction.

Spiritual Gifts and Personality Factors

No Christian action is independent of the Holy Spirit. Christians have the potential to change the world through the Holy Spirit. And the power within Christians is, in part, the effectiveness of their spiritual gifts.

Naden developed several cluster categories by drawing together gifts that appear to be inter-related. The classifications were originally suggested by the factor analysis that produced the original Spiritual Gifts Inventory (SGI) with 19 gifts.

Naden's clusters are: (1) teacher, (2) shepherd/evangelist, (3) supporter, (4) counselor, and (5) leader.

Under the theory that natural abilities and personality are closely related with spiritual gifts, it has been hypothesized that certain personality factors of the 16 PF, already shown to be predictors of vocation, might also be indicative of similar spiritual ministries. This theory is based on the North American setting and the same hypothesized model is projected for North American and Filipino cultures.

There were numerous studies on profiles by the 16 PF, but none of them were useful in building hypothetical models for the five spiritual gifts clusters. A complete ERIC search from 1966 to 1992 brought 53 entries using the description "16 PF" and 54 entries using the description "personality profile." However, no study gave result that could be used to hypothesize personality factors predicting spiritual gifts clusters. Thus, the theory to build

hypothesized models for each spiritual gifts cluster is based first, on the Handbook for the 16 PF (Cattell, Eber, & Tatsuoka, 1970) which contained comprehensive vocational profiles; second, on the Naden, Swanson, and Thayer preliminary findings; third, on knowledge rooted in a Christian perspective; and fourth, findings of other studies.

Teacher Cluster

The Handbook for the 16 PF (Cattell, Eber, & Tatsuoka, 1970) suggested a prediction model for teaching effectiveness including factors A+, B+, C+, M+, and N+ (p. 168). In considering a theoretical model for Christian teachers, one would expect them to be warmhearted (A+), friendly, responsive (A+, H+), imaginative (M+), polished (N+), and self-controlled (Q₃+).

Factor A (warmth) "is a significant contributor to success in teaching" (Krug, 1981, p. 5). High M (imaginative) has been found to be most significant for the more creative teachers (Cattell et al., 1970, p. 99), which would be helpful in preparing different Bible classes for all age groups. Particular high H and M for Christian teachers were found by the Naden, Swanson, and Thayer study (1992). Birkin (1969) found that creativity in students may be fostered by a teacher with high M and N factors. The Handbook for the 16 PF (Cattell et al., 1970) reported that studies on high-school teachers and university professors revealed M factors and N factors were high for those teaching

professions (p. 183). Naden et al. (1992) also found high H for Christian teachers. It is noteworthy that high H (boldness) is the most significant factor for successful male teachers (Cattell et al, 1970, p. 159). Thus, the hypothesized model for the teacher cluster includes factors A+, H+, M+, N+, and Q₃+

Shepherd/Evangelist Cluster

The Handbook for the 16 PF reported prediction models for Roman Catholic priests, nuns (missionary), and Roman Catholic seminarians and included factors A+, B+, I+, and F- (p. 212). Naden et al. (1992) found factors H, B-, Q₁-, Q₃+, and G+ for the shepherd/evangelist cluster.

The shepherd/evangelist is a caring and sharing person who visits and encourages church members and unbelievers. This person would need A+ (warmhearted); and evangelism and pioneering demand H+ (venturesome), and Q₃+ (self-discipline). A+ (warm) was one of the factors for effectiveness in ministerial candidates (Stewart, 1990). Wallstrom (1990) found that H+ was an important factor for role satisfaction in ministry. The high H factor means bold, venturesome, likes meeting people, active, and responsive, which are well-suited personality traits to the shepherd/evangelist function which includes "moving to an area where there is no Christian church and pursuing one's vocation with a view to finding opportunities to share the gospel" (Naden, 1989, p. 101).

It is ideal for those with very high H to be moderated with Q₃+. The Q₃+ person typically has strong self-control, persistence, consideration of others, and is respectful of social expectations. Q₃+ was one of the most important factors for the prediction of missionary success overseas (Britt, 1981).

The shepherding function includes feeding, tending, nurturing, and being a good example to the flock (1 Pet 5:1-3), and F- (seriousness, concerning) and G+ (conscientious, persevering) may be indicative for these functions. A higher G factor score describes a conscientious, persevering, emotionally disciplined person who is concerned about moral standards and rules. Along with low Q₁ factor's conservatism and traditionalism, it is difficult for such a person to yield to liberal or radical ideas. These are valued qualities for the shepherds in the evangelical parochial context.

Thus, the hypothesized model includes factors A+, H+, Q₃+, F-, G+, and Q₁-.

Supporter Cluster

Factors Q₁-, B-, and Q₃+ are common in the prediction models for kitchen helpers and janitors (Cattell et al., pp. 197, 201). It is obvious that no one or two vocations could encompass all the richness of supporting spiritual ministries. However, in order to hypothesize within

available theory and research, these two vocations seemed to be the closest available.

Naden et al. (1992) found factors Q₄-, H+, G+, O+, Q₃+, and B- for the supporter cluster.

When Q₄ factor is low, the person is typically very relaxed, composed, and rarely frustrated. Observation often suggests that people who become involved in supporting ministries in the church are people with these qualities. Activities such as collecting food for the needy, fixing a meal for a patient, chopping wood for an elderly person, assisting the handicapped, and visiting those in hospital and prison are common supporting cluster ministries.

Other activities such as putting up seminar posters, caring for church grounds, opening the church for services, and serving in the kitchen need high G factor's qualities such as being persistent, responsible, disciplined, ordered, and having a strong sense of duty.

Someone with low B factor is "able to work better with simple things than with complex ideas," handle routine work (Chalmers & Chalmers, 1979, p. 38), and tends to work with his/her hands. A person with high O factor generally shows concern for details and a strong sense of obligation-- also indicative traits for Christian supporters.

The O+ factor and the Q₄- factor are essentially opposite, because O+ indicates apprehensive, worrying, and Q₄- indicates relaxed and unfrustrated. However, O+ does not indicate "the individual's being irrationally worried, tense,

irritable, anxious, and turmoil," as Q₄+ describes it (Cattell et al., 1970, p. 108). Some of the characteristics of the high O factor are a strong sense of obligation and sensitivity to people's approval and disapproval, which would probably match a supporter's characteristics. Hospitality, giving, and intercessory gifts of the supporter cluster need low Q₄ factor's relaxed, unfrustrated, composed attitudes, and these traits suggest a healthy balance to the anxieties of high O factor.

According to the Handbook for the 16 PF, high H and Q₃ are associated with success in organized activities (Cattell et al., 1970, pp. 92, 107), which is related to the supporting function in the church. Thus, the hypothesized model includes factors Q₄-, G+, O+, H+, Q₃+, and B-.

Counselor Cluster

The Handbook for the 16 PF reported a prediction model for employment counselors that includes factors B+, I+, F-, A+, and M+ (Cattell et al., 1970, p. 198).

In considering a theoretical model for Christian counselors, the same five factors may be included. Christian counselors often find themselves intervening in a crisis in the church as well as assisting those with private struggles. Heightened sensitivity (I+), seriousness of approach (F-), and emotional stability (C+) would be advantages for such counselors along with low Q₄ factor's relaxed, unfrustrated, and composed drive.

Moreover, A+ (warmhearted) would be helpful for comforting, encouraging, and motivating skills. Naden et al. (1992) found M+ for Christian counselors and stated "the ability to use imaginative (M+) approaches to the problems faced by people would be beneficial to the counselor" (p. 6). The hypothesized model includes factors B+, I+, F-, M+, A+, C+, and Q₄-.

Leader Cluster

The profile pattern for the highest leadership scale (Krug, 1981, p. 91) shows that factors N+, Q₃+, C+, H+, G+, and O- are indicative of a leader. Naden et al. (1992) found factors H+, E+, G+, O-, and Q₃+ for the leader cluster.

Christian leaders sometimes must make tough decisions. A high H factor means bold, active, adventurous. Often these are characteristics of leaders. The H+ person's boldness and sociability result in showing significantly greater frequency of becoming adopted as leaders (Cattell & Stice, 1954). One of the gifts in the leader cluster is the gift of administration, and H factor is high in administrators (Cattell et al., 1970, p. 92). Christian leadership which involves activities taking the initiative in new outreach programs sometimes demands boldness and ascendance--high E with high H. The Handbook for the 16 PF states that factor E "is somewhat higher in established leaders than in followers," and "groups averaging high on E

show more effective role interaction and democratic procedure" (Cattell et al., 1970, p. 86).

A person with Q₃+ brings his/her emotions and general behavior under control and Christian leaders' self-control "is essential for the development of a consistent, predictable character approved by society and God" (Chalmers & Chalmers, 1979, p. 57).

A high G score also was evaluated as significantly related to leadership by the Handbook (p. 90). Christian leaders also need to be conscientious, persevering, and emotionally disciplined people who are concerned about moral standards and rules (G+). When a leader is conscientious (G+), the O- traits such as inner peace, confidence, and self-assuredness are justified. On the other hand, if one is expedient (G-) and the factor O is low, one would have very little concern when God's rules are disregarded. Thus, it is important for a Christian leader to have moderately high G and moderately low O traits together.

Serenity, an inner peace, and confidence are important in leaders and the leader cluster is correlated with a low O factor which indicates these traits. It is noteworthy that "high O factor is strongly weighted against successful leadership" (Cattell et al., 1970, p. 102).

Thus, the hypothesized model for the leader cluster includes factors H+, E+, G+, Q₃+, and O-.

Significance of the Study

The aim of this study was to help Christians make better judgments about their giftedness for potential ministry. An individual's past experience is an indicator of giftedness. The New Spiritual Gifts Inventory taps the evidence of an individual's giftedness through the experience of what has happened in their individual lives. But significant correlation between an individual's personality and giftedness would indicate potentiality for future ministry irrespective of the opportunity during past ministry. If one can identify the specific aspects of individual personality that are correlated with a specific cluster of spiritual gifts, one can establish a personality profile for each of the spiritual gifts clusters. Then it would be possible to explore potential giftedness by exploring personality.

Delimitation of the Study

The population was delimited to selected seminary students at Andrews University (1989-1992) and undergraduate students at Philippine Union College enrolled during the 1992 school year. The sample from among the seminary students is skewed towards the male. The examination of the relationship between spiritual gifts clusters and personality factors was done without regard to gender. There is no separate analysis for sex (male, female).

This study was further delimited to the following variables:

1. Sixteen personality factors as indicated by the 16 Personality Factor Questionnaire--A, B, C, E, F, G, H, I, L, M, N, O, Q₁, Q₂, Q₃, Q₄.
2. Five clusters of spiritual gifts indicated in the New Spiritual Gifts Inventory--teacher, shepherd/evangelist, supporter, counselor, and leader.

Definition of Terms

Counselor cluster comprises three gifts named in the New Testament: insight, encouragement, and wisdom. The three gifts go together because they are similar and overlap each other (Naden, 1989, p. 74).

Factor analysis is a complex statistical technique based on the concept of correlation which Cattell used to discover and investigate personality traits (Hergenhahn, 1980, p. 190).

Factor loading is the weight given to a factor based on its importance to a given situation (Hergenhahn, 1980, p. 190).

Leader cluster comprises three gifts: administration, leadership, and faith (Naden, 1989).

Personality is the active organization of one's traits and habits into characteristic ways of responding to situations and to other people.

Personality factor A is a bipolar description of personality on the basis of factor analysis. A low score in factor A indicates that the individual is reserved, detached, critical, aloof and/or stiff; a high score indicates that he/she is warmhearted, outgoing, easygoing, and/or participating.

Personality factor B is a bipolar description of personality on the basis of factor analysis. A low score in factor B indicates that the individual is concrete-thinking and/or less intelligent; a high score indicates he/she is abstract-thinking and/or more intelligent.

Personality factor C is a bipolar description of personality on the basis of factor analysis. A low score in factor C indicates that the individual is affected by feelings, is emotionally less stable, and/or easily annoyed; a high score indicates he/she is emotionally stable, mature, and/or calm.

Personality factor E is a bipolar description of personality on the basis of factor analysis. A low score in factor E indicates that the individual is submissive, humble, mild, and/or accommodating; a high score indicates he/she is dominant, assertive, aggressive, stubborn, and/or bossy.

Personality factor F is a bipolar description of personality on the basis of factor analysis. A low score in factor F indicates that the individual is sober, restrained, prudent, and/or serious; a high score indicates he/she is

enthusiastic, spontaneous, heedless, expressive, and/or cheerful.

Personality factor G is a bipolar description of personality on the basis of factor analysis. A low score in factor G indicates that the individual is expedient and/or self-indulgent; a high score indicates he/she is conscientious, conforming, moralistic, and/or staid.

Personality factor H is a bipolar description of personality on the basis of factor analysis. A low score in factor H indicates that the individual is shy, threat-sensitive, hesitant, and/or intimidated; a high score indicates he/she is bold, uninhibited, and/or can take stress.

Personality factor I is a bipolar description of personality on the basis of factor analysis. A low score in factor I indicates that the individual is tough-minded, self-reliant, no-nonsense, and/or realistic; a high score indicates he/she is tender-minded, overprotected, intuitive, and/or refined.

Personality factor L is a bipolar description of personality on the basis of factor analysis. A low score in factor L indicates that the individual is trusting and/or accepting of conditions; a high score indicates he/she is suspicious, distrustful, and/or skeptical.

Personality factor M is a bipolar description of personality on the basis of factor analysis. A low score in factor M indicates that the individual is practical and/or

has "down-to-earth" concerns; a high score indicates that he/she is imaginative, absent-minded, and/or impractical.

Personality factor N is a bipolar description of personality on the basis of factor analysis. A low score in factor N indicates that the individual is forthright, unpretentious, and/or open; a high score indicates that he/she is shrewd, polished, and/or calculating.

Personality factor O is a bipolar description of personality on the basis of factor analysis. A low score in factor O indicates that the individual is self-assured, placid, secure, and/or untroubled; a high score indicates that he/she is apprehensive, self-blaming, insecure, and/or worrying.

Personality factor Q₁ is a bipolar description of personality on the basis of factor analysis. A low score in factor Q₁ indicates that the individual is conservative and/or respecting traditional ideas; a high score indicates that he/she is experimenting, liberal, critical, and/or free-thinking.

Personality factor Q₂ is a bipolar description of personality on the basis of factor analysis. A low score in factor Q₂ indicates that the individual is group-oriented, and/or sound follower; a high score indicates that he/she is self-sufficient, resourceful, and/or prefers own decisions.

Personality factor Q₃ is a bipolar description of personality on the basis of factor analysis. A low score in

factor Q₃ indicates that the individual is uncontrolled, lax, and/or careless of social rules; a high score indicates that he/she is following self-image, socially precise, and/or compulsive.

Personality factor Q₄ is a bipolar description of personality on the basis of factor analysis. A low score in factor Q indicates that the individual is relaxed, tranquil, composed, and/or unfrustrated; a high score indicates that he/she is tense, frustrated, overwrought, and/or fretful.

Shepherd/Evangelist cluster includes gift of evangelism, gift of shepherding, gift of speaking up for God, gift of cross-cultural ministry, and gift of pioneering.

Source traits constitute a person's personality structure and are thus the ultimate causes of behavior. Source traits are causally related to surface traits (Hergenhahn, 1980, p. 191).

Spiritual gift is a specific ability given to Christians by the Holy Spirit so he/she can serve others by nurturing and/or outreach.

Supporter cluster consists of five gifts: hospitality, support, giving, compassion, and intercession.

Surface traits are the outward manifestations of source traits. These are the characteristics of a person that can be observed and measured (Hergenhahn, 1980, p. 190).

Teacher cluster deals with the gift of knowledge and the gift of teaching.

Traits can be equated with the term factor for Cattell. Both refer to an underlying ability or characteristic responsible for consistency in behavior (Hergenhahn, 1980, p. 190).

Outline of the Study

This study has five chapters. Chapter 1 is comprised of the introduction, statement of the problem, purpose of the study, hypotheses, theoretical framework, significance of the study, delimitations of the study, definition of terms, and outline of the study.

Chapter 2 is the review of literature. It is divided into two main sections: spiritual gifts and personality factors.

Chapter 3 discusses the methodology, the population, the procedures followed in the collection of data, instrumentation (16 PF and NSGI), the null hypotheses, and the statistical analyses.

Chapter 4 presents the analyses of the data, and chapter 5 presents the summaries, implications, and recommendations.

Appendices and a bibliography constitute the balance of this research.

CHAPTER II

REVIEW OF LITERATURE

Spiritual Gifts

Numerous scholars, from charismatic to conservative perspectives, have written on the biblical theme of spiritual gifts. Largely because of the charismatic movement, the question of spiritual gifts recently has come to the forefront in the life of the Christian church. According to Wagner (1979), who used the term "gift theology" to describe his philosophy of gifts, approximately 80% of the books on the subject have been written since 1970.

Many people from the charismatic movement act as though the Spirit's gifts consisted primarily of tongues-speaking (and perhaps, miracles and healing), as some Corinthian believers seem to have believed. As a result, articles and books on the gift of tongues are numerous. Some scholars (Baxter, 1983; Lindsell, 1972; MacArthur, 1979; Walvoord, 1975) have expressed the concern that much of what is being written on this theme has a "feeling" orientation instead of being Bible-based, continuing what, for centuries, has been an operational gap between the biblical teaching about spiritual gifts and their use in the Christian community. Walvoord (1975) stated:

The final test must always be what the Scriptures actually teach. Experience may serve as a partial test of the conclusions, but, in itself, the Bible must be taken as the final authority. Experience ever possesses two fatal grounds for error: (1) a misapprehension of the experience itself and its content and divine origin, (2) a faulty conclusion as to the doctrinal meaning of the experience. (p. 174)

Baxter (1983) opposed Wagner's gift theology notion because of his "open-ended approach" to the discussion of spiritual gifts. Baxter's argument against Wagner is that his "emphasis is no longer on the Word of God, but on the individual" (p. 18). Baxter's conclusion is well taken: "What we believe and teach about the gifts of the Holy Spirit must not take away from nor add to the teaching of the Word of God" (p. 21).

The Term "Spiritual Gifts"

In the Greek New Testament, several words may be translated 'gifts.' Among them, two Greek words are prominent: charisma (manifestation of grace) and pneumatikos (manifestation of the Spirit). Andrews (1982) distinguished them as follows:

Charisma speaks of their being unearned and undeserved, the result of a gracious act of God. Those possessing the gifts are said by Peter to be 'stewards of the manifold grace of God' (1 Peter 4:10). Pneumatikos emphasizes that they were spiritual as opposed to natural abilities. (p. 169)

The Greek word charisma means "gift of grace."

Thayer (1979) stated:

In the technical Pauline sense charisma . . . denotes extraordinary powers, distinguishing certain Christians and enabling them to serve the church of

Christ, the reception of which is due to the power of divine grace operating in their souls by the Holy Spirit. (pp. 345-46)

Vine (1985) contended that pneumatikos "always connotes the idea of invisibility and of power. It does not occur in the Septuagint nor in the Gospels; it is in fact an after-Pentecost word" (p. 594). Thus, this word indicates that the gifts are not of man, neither by man, but of God. Some scholars have called them of "sovereign distribution" (Andrews, 1982; Baxter, 1983; Criswell, 1967; Gangel, 1983; Griffiths, 1979; Kinghorn, 1976; Strauss, 1976).

Vine also referred to charisma as always being used in connection with "grace (charis) on the part of God as the Donor" (p. 264). Charis, generally translated as 'grace' in the New Testament, could be used for all blessings that comes from God as 'free gifts.' More importantly, charis is "a word of broader application and fundamental to an understanding of St. Paul. This word . . . means, for Paul, the wholly unmerited favor of God, actualized in the cross of Jesus" (Goetchius & Price, 1984, p. 29). Schatzmann (1987) characterized Paul's theology as "charistocentric" (p. 2)

Dunn (1975) echoed the same idea,

In Paul charis is a central concept that most clearly expresses his understanding of the salvation event, that is, as an act of wholly unmerited generosity on God's part. . . . For Paul grace (charis) means power, an otherly power at work in and through the believer's life, the experience of God's Spirit, . . . the dynamic experience of being taken hold of, upheld and used by God. (pp. 202-204)

Dunn concluded that "grace gives the believer's life both its source, its power and direction. All is of grace and grace is all" (p. 205).

The term charisma is uniquely of Pauline usage (Brown, 1976, p. 118), which was noted by Dunn (1975) as "the main influence determining Paul's choice of the word is his own experience, the creative experiences which it describes" (p. 206). Even in the New Testament, charisma is a relatively rare word, occurring only 17 times. Apart from 1 Pet 4:10, it is only used in the Pauline literature, where it is used in a variety of related ways. In Rom 5:15, 16; 6:23, charisma refers to the gracious gift of righteousness or salvation given through Jesus Christ, which overlaps the meaning of charis. Charisma is used twice to refer to particular gifts of divine favor given to the believer (2 Cor 1:11; 12:9). In 1 Cor 7:7, celibacy is regarded as charisma. Paul's most frequent usage of charisma is as a particular manifestation of grace within the context of the community of faith (Rom 11:29; 9:4). The primary passages, Rom 12:6-8 and 1 Cor 12-14, designate particular gifts as a result of God's grace for the upholding of the body of Christ. In various passages, the word charisma is used of gifts of the Spirit in the sense of special capacities or powers in the Christian community, and only in this context does Paul go into detail and give instances of the sort of charismata he has in mind (Rom 1:11; 12:6; 1 Cor 1:7; 7:7; 12:4, 9, 28, 30, 31; 1 Tim 4:14; 2 Tim 1:16).

Pneumatikos is almost as distinctively Pauline as charisma, at least within early Christian literature (Dunn, 1975, p. 207). It expresses "clearly the sense of belonging to Spirit, embodying Spirit, manifesting Spirit, of the essence or nature of Spirit" (Dunn, 1975, p. 208). Paul uses it in three ways: (1) as an adjective (spiritual "something," Rom 1:11; 7:14; 1 Cor 15:44, 46; Eph 1:3; Col 3:16), (2) as a masculine noun (spiritual man, pneumatiker, 1 Cor 2:13, 15; 14:37; Gal 6:1), and (3) as a neuter plural noun (the spirituals, spiritual things, 1 Cor 9:11; 12:1; 14:1).

In only one instance, Rom 1:11, are the two words pneumatikon and charisma used together. Paul desires to go to Rome "that I may impart some 'grace gift of spiritual manifestation.'" Dunn noted that Paul prefers charismata over pneumatikos (e.g., Rom 12:6; 1 Cor 1:7) since the latter seems to be "used with more restricted reference to spiritual gifts, synonymous with the charismata" (Dunn, 1975, p. 208). Ellis (1974) argued that the term is not equivalent to the more general charismata, although it may be identified with the 'greater charisms' (Rom 1:11; 1 Cor 14:1; 12:31). Sullivan (1982) noted that the reason why Paul uses pneumatika instead of charisma at the beginning of chaps. 12 and 14 of 1 Corinthians is that he "is criticizing here the Corinthians' tendency to see the Spirit's working primarily, if not exclusively, in such 'gifts of inspiration' as tongues and prophecy" (p. 23).

The third word Paul uses in 1 Cor 12 to describe spiritual gifts is diakonia (vs. 5). The word, translated "service," is used in the New Testament to describe the office and work of a 'deacon' or any kind of service or ministry in the church. It is a further reminder of the truth that gifts are to be exercised for the well-being of others and not for the bolstering or encouragement of one's self.

Next, Paul uses the word energema, translated "working" (1 Cor 12:6), to describe spiritual gifts. This Greek word is used in the New Testament only here and in vs. 10. It is derived from the verb energeo which, in its passive form, means to be actuated or set in operation, and in the New Testament is "always used of some principle or power at work" (Meyer, 1883).

The final word Paul employs to describe the nature of gifts is phanerosis (vs. 7). To each Christian, he says, is given the "manifestation" of the Spirit for the common good. Like energema this word is used only once elsewhere in the New Testament (2 Cor 4:2), where Paul uses it to describe the 'open statement' of the truth involved in the preaching of the gospel. The word is derived from the verb phaneroein which means to make visible or clear or known. Gifts are "manifestations of the Spirit"; hence, when they are exercised, God's nature or His way of dealing with men and women is made clear where before there was ignorance or confusion.

The word used in Eph 4:8 of the "gifts" is domata, which occurs five times in the New Testament. This word is made up of the stem "to give" do-, as several other Greek nouns that can be translated "gift" (doma, dosis, dorea, dorema, doron), with the ending -ma to mean "the result of giving" a gift, and with a further addition of -ta indicating a plural number of the results of giving (i.e., "gifts").

In summary, Jones suggested that the various terms Paul uses to describe spiritual gifts show that the way Christians use their gifts is different and Paul's usage of those words reflects the experience he had with spiritual gifts in his own life (1985, p. 27-28), yet these words are not used to express different experiences, but rather different aspects of the same experience.

The Nature and Purpose of Spiritual Gifts

In his first letter to the Corinthians, Paul emphasizes the need for understanding God's gifts to his people. He says: "Now about spiritual gifts, brothers, I do not want you to be ignorant" (1 Cor 12:1, NIV). Paul's prescription for the Corinthian misconception of spiritual gifts is a proper understanding of the nature and purpose of charisms (Hummel, 1978, p. 174). Paul uses three different Greek words in 1 Cor 12:4-6 (charismata, diakonai, and energemata) to describe the gifts of the spirit to teach something about the nature and purpose of spiritual gifts. Bittlinger (1967) states: "In his use of these three terms

Paul is expressing something about: the origin of the gifts; the way in which they are experienced in the church; the purpose of the gifts" (p. 20).

The term charismata denotes the source of the gifts as divine charis, and the term diakonai means 'eager readiness to serve', which implies that their purpose is to serve others, not the recipient. The term energemata means functional 'outworkings,' to produce results. Ervin (1968) explained: "These three, *gifts, ministrations, and workings*, are all designated collectively as *manifestations* of the Spirit" (p. 111), as vs. 7 reads.

These three words do not refer to different entities but define each other so that the latter two serve to identify the nature of the former, and to make plain that the gifts listed in the following verses (8-10) are to function for service within the church. The diverse, multifaceted manifestation of the Spirit is "for the common good" (vs. 7), and the consideration that identifies the purpose of all gifts and regulates their exercise is the edification of the church (1 Cor 14:12; cf. vs. 26: "all things . . . for edification").

Definition of "Spiritual Gifts"

While giving many insights into the nature and function of spiritual gifts, the Bible does not give a formal definition of them. Kinghorn (1981) defined charisma in three ways: "Gift of salvation" (Rom 6:23), "Blessing, encouragement, or comfort" (2 Cor 1:11), and "a special

ability to minister with effectiveness and power" (Rom 12:6; 1 Cor 12:4,31; 1 Tim 4:14; 1 Pet 4:10). It is in the context of the third definition that charisma means spiritual gifts.

Koenig's (1978) definition of spiritual gifts (charismata) is as follows: "The apostle Paul especially uses it (charismata) to describe gifts of God (not always spectacular) that differentiate believing individuals from one another for the purpose of enhancing their mutual service" (p. 14).

Dunn's (1975) definition stated: "Charisma can only be understood as a particular expression of charis, as the gracious activity of God through a man . . . for others; charisma is the experience of grace given" (pp. 253-58); Thayer's (1979) definition is as good as any: "extraordinary powers, distinguishing certain Christians and enabling them to serve the church of Christ, the reception of which is due to the power of divine grace operating in their souls by the Holy Spirit" (p. 667).

Stott (1964) combined the three words of 1 Cor 12:4-6 and defined spiritual gifts as:

certain capacities, bestowed by God's grace and power, which fit people for specific and corresponding service [It] is neither a capacity by itself, nor a ministry or office by itself, but rather a capacity which qualifies a person for a ministry. (p. 87)

Naden (1989) emphasized that "gifts are for ministry to others" and defined spiritual gifts as "special abilities given to Christians by the Holy Spirit so they can serve others in nurture and/or outreach" (p. 43).

Natural Talents and Spiritual Gifts

In the New Testament, Paul never gives a clear picture of the relationship between natural talents and spiritual gifts. Scholars have suggested different understandings of the distinction between natural talents and spiritual gifts. Generally, two positions sum up the discussion.

Some have written that spiritual gifts are supernatural, whereas talents are innate in every human at birth (Baxter, 1983; Ervin, 1968; Flynn, 1974; Gangel, 1983; Gee, 1972a; McRae, 1976; Neighbour, 1974; Owen, 1971; Pentecost, 1970, Stedman, 1972; Walvoord, 1975; Williams, 1990). Gangel stated that "spiritual gifts work in the spiritual realm and natural talents in the natural realm" (p. 11). Criswell (1966) referred to the word charisma as the special gifts given to man by God, and said:

We must remember the word does not refer to a natural talent. It refers to a grace gift, an undeserved favor from God to man. It refers to something bestowed that is neither purchased nor gifted, of high intelligence, possessing natural endowments. These are not ta charismata. The charismata are supernatural endowments. (p. 149)

These writers believed that spiritual gifts can be "bestowed" (manifested) suddenly at any point in the believer's experience (Gee, 1972a)

However, Flynn (1974), Goetchius and Price (1984), Orjala (1978), Neighbour (1974), Purkiser (1975), and Stott (1964) suggested that talents and gifts are related. That

means there is a possibility to "christianize" natural talents, making them into spiritual gifts (Bittlinger, 1967; Ervin, 1968; Griffiths, 1978; Kinghorn, 1976; Laurentin, 1978; Stedman, 1972).

The second position on the relationship between talents and gifts has contended that spiritual gifts and natural talents are not essentially different, for the Lord will give His children natural aptitudes that would subsequently become enriched as spiritual gifts at the time of conversion (Barnette, 1965; Griffiths, 1978; Naden, 1989; Schweizer, 1961; Stott, 1964; Walvoord, 1975). Stott (1964) made a strong point that the Lord is both God of Creation and Redemption. The God who chose humans before the foundation of the world (Eph 1:4,5) and who prepared beforehand good works for them to walk in (Eph 2:10) is also the God of Redemption who pours His grace upon and endows humanity with spiritual gifts (Eph 4:7,11) (pp. 90-94). Fife (1978) warned of the mistake "to assume that when the Holy Spirit is ministering through the spiritual gifts of a person, his personality is somehow by-passed . . . God does not obliterate personality. He refines it and uses it" (pp. 113-114). Jones (1985) stated that "our giftedness as much determines our personalities as our personalities determine our giftedness" (p. 68).

Classifying Spiritual Gifts

Even though Paul never provides a systematic classification, among Bible scholars there have been various

means of classifying spiritual gifts, "but none has found general acceptance" (Goetchius & Price, 1984, p. 30).

One of the common classifications of these gifts is to distinguish them as permanent and temporary (e.g., Pentecost, 1970; Strauss, 1976). Thomas (1978) compared the permanence of love (1 Cor 13:8a) with temporary gifts (i.e., prophecies, tongues, and knowledge) (1 Cor 13:8b). Baxter (1983) divided "gifts which were permanently needed in the church" from "gifts which were temporary in nature" (p. 83) and labeled them as "fulfilling" and "fulfilled" gifts. Criswell (1966) introduced another categorization of gifts as either continuing or transitory, and distinguished the permanent gifts as for the building up of the body (for the edification of the church), and the temporary gifts as signs to substantiate or corroborate the message (for unbelievers to authenticate the message). Walvoord (1975) considered most of the gifts of 1 Cor 12:8-10 as temporary (i.e., belonging only to the apostolic age). Williams (1990) strongly opposed that position, saying, "such juggling with Scripture has even less to commend it than a forthright dismissal of all the spiritual gifts" (p. 327).

Orjala (1978) used the lists of three Bible references of spiritual gifts to classify them as: (1) the primary gifts (Rom 12:6-8), (2) secondary gifts (1 Cor 12:8-10), and (3) ministries which involve gifts for their functioning (Eph 4:11).

It was Criswell (1966) who illustrated typical ways of grouping the gifts out of many individual approaches (pp. 154-156). He chose seven groupings and listed them as:

- I. (1) Gifts for the ministering of the Gospel (1 Cor 12:8-10)
- (2) Gifts for the work of the church (1 Cor 12:28-30)
- (3) Gifts for the ministries of the church (Rom 12:6-8)
- (4) Gifts for the building up of the church (Eph 4:11)

- II. (1) Emotional gifts (1 Cor 13:1)
- (2) Intellectual gifts (1 Cor 13:2a)
- (3) Practical gifts (1 Cor 13:2b)
- (4) Philanthropic, sacrificial gifts (1 Cor 13:3)

- III. (1) Gifts connected with the ministry of the Word
- (2) Gifts connected with practical uses

- IV. (1) Gifts of revelation
- (2) Gifts of power
- (3) Gifts of inspiration

- V. (1) Basic ministries, gifts of edification
- (2) Sign gifts for authentication

- VI. (1) Natural gifts
- (2) Supernatural gifts

- VII. (1) Eleven permanent gifts
- (2) Five temporary gifts

Naden's development of six spiritual gifts clusters was based on three reasons. Naden (1990a) suggested that "some gifts named in the New Testament appear to be intimately related" (p. 4) and explained the formation of gift clusters through the statistical method of factor analysis in these words:

It was hypothesized that there may be such a degree of commonality in the New Testament's gifts that multiple loaded, that it would be more accurate to speak of them

as gift clusters rather than as individual gifts.
(Naden, Swanson, & Thayer, 1992, p. 1)

A second reason for clustering the gifts was to replace the King James Version terminology to "clearer contemporary understanding [that includes] multiple gifts rather than individual gifts" (Naden et al., 1992, p. 1)

A third concern revolved around the New Testaments' "random selection of gifts," and the contention that "a more complete model, . . . should take into consideration those gifts that are commonly seen in the members of contemporary congregation" (Naden et al., 1992, p. 2)

Flynn's view agrees with Naden's position. Flynn (1974) argued "that every possible gift for the church could be classified under one of the gifts in Paul's three tabulations (Rom 12:3-8; 1 Cor 12:8-10, 28-30; Eph 4:11)," and commented:

Thus, though all the gifts in the church are not actually specified in Scripture, yet every unnamed, genuine gift could be subsumed under one of the listed gifts.

In this view, each of Paul's specific gifts becomes an umbrella which shelters a group of related gifts. This concept proposes that, though all the offsprings are not specifically recorded, all the parent-gifts are named in the Pauline tabulations. In the sense of offspring registration, the New Testament is suggestive and incomplete; in the sense of parent nomenclature Paul's lists are practically exhaustive and complete. (pp. 30-31)

Discovering Spiritual Gifts

Another key question that scholars have asked about spiritual gifts is: "How can I discover my gifts?" To many of them (e.g., Baxter, 1983; Gangel, 1975; McRae, 1976;

Murphy, 1975; Purkiser, 1975; Schramm, 1982; Tidwell, 1982; Wagner, 1979; Yohn, 1974), this is the most important question.

Gangel (1983) suggested these guidelines:

1. What do you enjoy doing?
2. What service has God been blessing?
3. How have others encouraged you?
4. What has the Holy Spirit told you?

Strauss (1976) summarized the three steps:

information about gifts, a person's inclinations, and investigation by exploring and inquiring.

Kinghorn (1976) discussed the following six guidelines (pp. 108-116): Open yourself to God as a channel for his use; examine your aspirations for Christian service and ministry; identify the needs that you believe to be most crucial in the life of the church; evaluate the results of your efforts to serve and to minister; follow the guidance of the Holy Spirit as he leads you into obedience to Christ; remain alert to the responses of other Christians.

Wagner (1976) gave five practical steps: Explore the possibilities; experiment with as many as possible; examine your feelings (what you like or enjoy doing); evaluate your effectiveness; expect confirmation from the Body. Orjala (1978) added a sixth step to this list: inner confirmation by God's Spirit (p. 35).

Jones (1985) suggested five discoveries of spiritual gifts, "considering the context in which gifts are discovered" (pp. 71-73): (1) discovery of the New Testament Scripture concerning spiritual gifts, (2) discovery of

individual abilities, strengths, and talents that match up with the biblical descriptions of the gifts, (3) discovery of affirmation from other people, (4) discovering the opportunities to use gifts, and (5) discovering the joy of fitting into the rest of the body of Christ. Jones (1985) devoted much of his discussion to the discovery of spiritual gifts, saying it is the key to effective church ministry to understand that the pastor as the facilitator of spiritual gifts discovery, and the nominating committee as a gift-search committee (pp. 73-93). Flynn (1974) agreed that the nominating committee "seeking guidance in selection of church officers" uses the principle of discovering gifts (p. 193).

Some experts tried to help Christians identify individual giftedness by using special instruments. Houts (1976) introduced an inventory with 100 statements to be rated on a scale of 0 to 3 that were to be answered based on experience, not interest. Kinghorn (1981) prepared an inventory consisting of 200 statements that the respondent would rate on a scale of 0 to 5. Edwards (1988) mentioned Robert Noble's questionnaires with 125 statements rated on a scale of 0 to 3. These instruments were self-scoring, and were simple to administer and to score. The highest scores should indicate which spiritual gifts are most evident in an individual's life.

Jones (1985) presented an inventory composed of 90 statements and encouraged subjects to look for a relationship between gifts and to discover in what areas (Gifts used in

Body Life, Gifts used in Ministry in the World, and Gifts used in Spiritual Guidance) their gifts seem dominant.

Naden first published an inventory in 1981 with co-author R. Cruise. This 57-item instrument was designed to tap the evidence of giftedness through an individual's past service experience and approximate areas of high probability of spiritual giftedness. In 1990, this instrument was revised, with 20 statements and a 5-point scale, to identify one's gift clusters instead of isolated gifts. Like the other instruments mentioned above, Naden's inventory is self-scoring and expects the subjects to give spontaneous answers "based on their inclination to perform tasks given the opportunity and means, and not exclusively on contemporary experience" (Phoon, 1986, p. 63).

Personality Factors

Cattell stated that "personality is that which permits a prediction of what a person will do in a given situation" (Cattell, 1950, p. 2). This definition is an indication of the general tone or theme of Cattell's view of the nature of personality and his approach to understanding it. His purpose or goal in studying personality is the prediction of behavior, of what a person will do in response to a particular stimulus situation. He expressed this view of personality mathematically, in the following equation:

$$R = f(P,S)$$

R stands for the response or reaction of the individual (what a person will do), S refers to a given situation or stimulus, and P stands for personality. Elements of the stimulus situation can be known and precisely defined. Indeed, in the laboratory, it is the experimenter who designs and sets up the stimulus situation. The unknown factor--the one most difficult to know--is P , the structure and function of the personality.

In Cattell's approach to personality, there is no reference to changing or modifying behavior from undesirable to desirable or from abnormal to normal. Cattell's subjects are normal individuals, whose personalities are studied, not treated. Cattell firmly believed that it is impossible (or at least unwise) to attempt to change a personality before knowing in great detail what is being changed. A valid study of personality, then, must come first. Cattell's theory did not derive from a clinical frame of reference. Rather, his approach had been a rigorously scientific one, using extensive observations of behavior and collecting data on each individual. Cattell's data came from questionnaires, objective tests and observations, and ratings of behavior as it occurs in real-life situations. The key aspect of Cattell's approach to studying behavior, and what makes it so different from all other approaches, is what he does with the considerable data thus generated. The most important concept in his theory is the factor analysis of personality traits.

Factor Analysis

The primary tool with which Cattell pursued his research was factor analysis. The essential ideas of factor analysis were introduced by Spearman (1904), a distinguished English psychologist who is best known for his work with mental abilities (Spearman, 1927). Spearman's technique for isolating single factors was revised with Thurstone's (1931) introduction of multiple factor analysis that opened the way to study complex problems and has remained the principle method of factor analysis. Having begun his career at a time when the work of Spearman was still current and that of Thurstone was a promising new achievement, Cattell incorporated many of their factor analytic orientations, techniques, and procedures into his own technical approach. At the same time, he made advances of his own and was always open to the insights of others. Schultz (1976) explained the procedure that Cattell used:

In essence, this very complex procedure involves assessing the relationship between each possible pair of measurements taken from a group of subjects. Each pair of measurements (for example, scores on two different psychological tests or on two subscales of the same test) is analyzed to determine how highly the scores correlate with each other. In other words, a correlation coefficient is determined for each pair of measurements.

If two measures show a high correlation with each other, then it is assumed that they must be measuring related aspects of personality Thus, large amounts of data are statistically analyzed to determine these common factors. (p. 257)

In Table 1, for example, two clusters of variables appear to go together. Cluster 1 consists of tests A, B, and C; cluster 2 consists of tests D, E, and F. Thus, the

TABLE 1
INTERCORRELATION BETWEEN SIX TEST VARIABLES

| Test | A | B | C | D | E | F |
|------------------------|-----|-----|-----|-----|-----|---|
| A Mistrust | | | | | | |
| B Ego instability | .72 | | | | | |
| C Guilt | .45 | .49 | | | | |
| D Verbal comprehension | .02 | .04 | .07 | | | |
| E Mathematical ability | .08 | .18 | .00 | .58 | | |
| F Word fluency | .16 | .04 | .10 | .62 | .48 | |

investigator starts with a large number of surface variables and seeks to reduce them to a few common source factors that can be used to predict the variation in the original measures. Variables that are strongly intercorrelated are considered to be measuring, to a great extent, the same entity or factor. The problem facing the investigator is that he/she must then eventually label these underlying factors. Since his/her judgments are subjectively based interpretations that have important implications for future theorizing and research, considerable skill and care must be exercised in the labeling process.

Cattell argued that factor analysis can isolate underlying causal influences in the human personality; this position contrasts with that maintained by the majority of personality psychologists who regard factor analysis as a useful technique for identifying potentially important descriptive dimensions, but independent investigations must be undertaken to assess the construct validity of factor analytically derived dimensions. That is part of the "reason

that the theory has not received wider recognition in psychology" (Schultz, 1976, p. 258).

The Trait Approach to Personality

The concept of traits is at the core of Cattell's view of personality. Other psychologists, such as Gordon Allport, also developed theories of personality around the concept of traits, but no one else has given such a detailed analysis and classification of traits. Schultz (1976) said:

[Cattell] viewed traits as mental structures--the elements or component parts of personality. Only when we know which traits characterize an individual are we in a position to predict what he or she will do in a given situation. Cattell defines trait as a reaction tendency of a person that is a relatively permanent part of his or her personality. To fully understand a person, then, we must know in precise terms the entire pattern of traits that defines that person as an individual. (pp. 257-258)

One of several ways in which Cattell classified traits is the distinction between ability, temperament, and dynamic traits. Ability traits refer to the person's skill in dealing with the complexity of a given situation. Intelligence would be a good example of an ability trait in Cattell's scheme. Temperament traits refer to the stylistic tendencies of the individual. For instance, people may be either chronically irritable, moody, easygoing, or bold. Dynamic traits refer to the motivation and interest of the person. A person may be characterized, for example, as ambitious, power-oriented, or interested in athletics (Cattell, 1965, p. 28).

Traits can also be grouped in terms of the number of people who possess them. Thus, a common trait has much the same form for everyone, and people differ from one another only in the strength of the traits. At the other end is the unique trait. It is so specific to one particular person that no one else could be measured on it.

The distinction between surface and source traits is probably the most important contribution Cattell made.

Surface traits are groups of observations that are correlated, but such observations are superficial in that they explain nothing. They are simply a statement of what kind of characteristics tend to be grouped together (correlated). Such characteristics can, and probably do, have many causes. Because they are composed of several elements, surface traits are less stable in nature and less important in understanding of personality. In Cattell's view, a surface trait is "simply a collection of trait elements, of greater or lesser width of representation that obviously 'go together' in many different individuals and circumstances" (Cattell, 1950, p. 21).

Source traits, on the other hand, are the causes of behavior. They constitute the most important part of a person's personality structure and are ultimately responsible for all of a person's consistent behavior. A source trait is "a factor-dimension, stressing the proposition that variations in value along it are determined by a single, unitary influence or source (Cattell, 1965, p. 375). Thus,

every surface trait is caused by one or more source traits, and a source trait can influence several surface traits. Schultz (1976) said: "Source traits are the individual factors that derive from factor analysis and that, in combination, account for some surface trait. Source traits, therefore, are the basic elements of personality" (p. 262).

Source traits may be divided into constitutional traits and environmental-mold traits; the former are internal, or within the skin, and have some basis in heredity. Environmental-mold traits come from the environment and are molded by events which occur outside the skin (Cattell, 1946, pp. 68-69).

For Cattell, the search for source traits started by measuring everything one can measure about a large group of people. The measures were then intercorrelated, and a cluster analysis indicated which measures tended to measure the same things. Such factor analysis yielded surface traits. The surface traits were then analyzed to see which of them tended to be related to each other--in other words, which were stimulated by the same source. Such an analysis provided information about source traits.

Major Source Traits

To reveal the underlying structure of personality, Cattell and his co-workers spent approximately 40 years in measuring the behavior of individuals who differ in age, occupational status, and cultural background. By means of three data-collection techniques, they found approximately 20

basic traits (Cattell, 1965, p. 64). These source traits were initially labeled factors A-T, but later, as more and more evidence accumulated, the factors were further identified and given labels. Sixteen of these basic traits were included in the construction of the Sixteen Personality Factor Test. The trait names of these factors are shown in Table 2. The traits are listed in terms of their importance in controlling variation in behavior, starting with factor A and ending with factor Q₄. Thus, the possession of information about a person's intelligence (factor B) allows an investigator to predict his performance on given tasks more effectively than would knowledge about his dominance (factor E).

The Specification Equation

It is a most complex task to predict a person's behavior. Although Cattell has been able to isolate and measure reliably a number of key source traits in personality, he still recognized that any viable theory of human functioning must be able to predict individual differences in behavior accurately. Under ideal circumstances where the psychologist can identify the relevant variables and precise means of measuring them, the individual's behavior in a given situation can be predicted through substituting the appropriate scores or values. Cattell has devised a mathematical formula that allows investigators to make such predictions in the following equation (Cattell, 1965, p. 78-80):

TABLE 2
 MAJOR SOURCE TRAITS ON THE SIXTEEN PERSONALITY FACTOR TESTS

| Low Score Description | Factor | Factor | High Score Description |
|-----------------------------------------|------------------|---------------------|-----------------------------------------|
| Reserved (Detached, Critical) | A- | vs A+ | Outgoing (Warmhearted) |
| Less Intelligent (Concrete-thinking) | B- | vs B+ | More Intelligent (Abstract-thinking) |
| Emotional (Affected by Feelings) | C- | vs C+ | Stable (Mature, Calm) |
| Humble (Submissiveness) | E- | vs E+ | Assertive (Dominance) |
| Sober (Restrained) | F- | vs F+ | Happy-go-lucky (Enthusiastic) |
| Expedient (Low superego) | G- | vs G+ | Conscientious (High superego) |
| Shy (Threat-sensitive) | H- | vs H+ | Venturesome (Bold, Uninhibited) |
| Toughminded (Self-reliant) | I- | vs I+ | Tender-minded (Sensitive) |
| Trusting (Accepting Conditions) | L- | vs L+ | Suspicious (Hard to Fool) |
| Practical (Steady) | M- | vs M+ | Imaginative (Absent-minded) |
| Forthright (Naivete) | N- | vs N+ | Shrewd (Shrewdness) |
| Placid (Assurance) | O- | vs O+ | Apprehensive (Guilt-proneness) |
| Conservative (Conservatism) | Q ₁ - | vs Q ₁ + | Experimenting (Radicalism) |
| Group-tied (Group adherence) | Q ₂ - | vs Q ₂ + | Self-sufficient (Self-sufficiency) |
| Casual (Low integration) | Q ₃ - | vs Q ₃ + | Controlled (High self- concept) |
| Relaxed (Low Tension) | Q ₄ - | vs Q ₄ + | Tense (Frustrated) |

$$R = b_1A_1 + b_2B_2 + b_3C_3 + \dots + b_nK_n$$

Where:

R--performance or response

A, B, C, ...K--source traits

b--weights or behavioral situation indices.

These weights are unique to each factor or source trait and show the degree to which each is involved in the situation under consideration (Cattell, 1965, pp. 78-80).

These weights for specific situations are generated by experimentation in which the performances of large groups of individuals are assessed and the relative importance of certain source traits is determined by factor analysis. Then these weights are used in the general equation, along with the individual's own scores, as a means of predicting performance.

Personality of Religious Individuals

It has been strongly suggested that different occupational groups are characterized by specific personality profiles (Cattell & Scheier, 1965), and certain aspects of performance are predictable from personality structure (Cattell & Stice, 1954).

Research has been conducted to correlate personality factors with occupations such as nurses (Adams & Klein, 1970; Stewart, 1966), educational administrators (Allen, 1967; Long, 1970), teachers (Null, 1971; Williams, 1968), ministers (Banks, 1966; Chalmers, 1969), chief executives (Coleman &

Riley, 1970), counselors (Donnan, Harlan, & Thompson, 1969), psychologists (Bachtold & Werner, 1970), athletes (Givone, 1969; Knapp, 1965; Kroll, 1967; Straub, 1971), engineering managers (Hay, 1966), swimming coaches (Hendry, 1969), radar controllers (Karson & O'Dell, 1971), fire fighters (Lowe-Holmes, 1971), artists (Drevdahl & Cattell, 1958; Mason, 1967), musicians (Shatin, Kotter, & Longmore, 1968), medical specialists (Mattie, 1970), nuns (Pallone, Driscoll, & Droba, 1969), and supervisors (Titus, 1969). . Personality profiles of the other professions, such as accountants, clerical workers, cooks, editorial workers, farmers, janitors, military cadets, miners, policemen, salesmen, scientists, social workers, technicians, and writers are also available (Cattell, Eber, & Tatsuoka, 1970, pp. 187-228).

Menges and Dittes (1965) comprehensively reviewed some 700 psychological studies of clergymen. Research has been undertaken on the personality features of some discrete religious population, for example: prospective overseas mission appointees (Schroeder, 1958), a higher incidence of functional emotional disorders among the religious than among the general population (Moore, 1936a; 1936b), elevated MMPI scores of religious personnel (Barry & Bordin, 1967).

While some 200 studies have investigated the personality of religious personnel (Menges & Dittes, 1965), comparatively few have investigated the personality structure of Protestant clergymen, not all with the same conclusions. Query (1966) studied candidates for ordination, successful

and unsuccessful, and found significant differences on five scales in the California Psychological Inventory. Siegelman and Peck (1960) concluded that clergymen showed a greater need to dominate, whereas Roe (1956) found clergymen to be low on dominance.

Chalmers (1969) utilized the 16 PF to determine whether there were systematic differences among personality traits which correlate with measures of performance among Seventh-day Adventist clergymen. He concluded that "there were significant differences in eleven out of sixteen trait means between the ministers and the general adult population" (p. 27).

Special interest was given to theological students to investigate their personality patterns: an evaluation of prospective theology students as a part of their entrance requirements to graduate seminaries (Knief, 1966), a study on the consistency of elevated MMPI profiles from Catholic and Lutheran seminarians (Dunn, 1965), and a similar study on Concordia seminarians (Nauss, 1968). Kimber (1947) reported that the students in a Bible institute had high social standards, a high sense of personal worth, and a high number of nervous symptoms, and their prevailing interest was in social service. Childers and White (1966) observed a homogeneity of personality behavior on each of 16 factors from 72 male students in a southern theological institution. They concluded that theological students were different from the general population means in terms of a stronger conscien-

tiousness, high self-concept control, seriousness and introspection, sensitivity, gentility, and dependency as measured by the 16 PF.

Banks (1966) investigated selected social and psychological variables relevant to satisfaction with the role of minister among the Seventh-day Adventist seminary students and concluded that three personality factors (H, N, and Q₄) were significantly related to role satisfaction.

In her study, Johnson (1943) described seminary student responses as concluding that "dominance and self-sufficiency occurred more frequently than other traits" (p. 329) She was interested in the possible use of personality questionnaires as a basis for the tentative prediction of success or failure in the field of religious work, because "many failures in parishes and on the mission field are due to difficulties in personal adjustments and in maintaining successful human relations" (p. 329).

Some research on the psychological aspects of clergy dealt with personality and ministry issues. Wagner (1957) noted that personality traits correlated with the different counseling methods when the studied group was divided into psychologically trained and untrained groups. Lucassen (1963) derived a leadership score from a test that was factor analyzed and found that two variables (initiative, and capability for insight and expression) correlated with leadership qualities.

Oden (1964) hypothesized about the relationship between personality and preaching, and confirmed: (1) a preacher with a personality oriented towards people tends to preach people-oriented sermons, (2) a preacher with a personality oriented away from people tends to preach concept-oriented sermons, and (3) a preacher with a personality oriented against people tends to preach verdict-oriented sermons.

Summary

Among several Greek words that are translated 'gift' in the New Testament, charisma uniquely expresses Paul's theology of spiritual gifts, whereas Paul's various terms for gifts show that the way Christians use their gifts is diverse. Three different Greek words in 1 Cor 12:4-6 (charismata, diakonai, and energemata) that describe the gifts of the spirit teach something about the nature and purpose of spiritual gifts: the origin of the gifts; the way in which they are experienced in the church; and the results of ministry using spiritual gifts.

There have been various suggestions to differentiate spiritual gifts from natural talents, but two positions are noteworthy. One is that spiritual gifts are not related with talents, and the other is that they are virtually the same. Those who view the conversion experience as the act of giving one's natural talents to God, and then receiving them

back as spiritual gifts, are comfortable with the idea of spiritual gifts and personality being intimately correlated.

Personality profiles were studied and developed by Cattell's factor analysis, and much research has been done to find the correlation between personality patterns and different vocations. According to Menges and Dittes (1965), several hundred research projects have been devoted to the psychological aspects of clergy. Some studies have revealed that personalities are significantly correlated with different approaches to ministry by clergy.

CHAPTER III

METHODOLOGY

Type of Study

This study used the six different procedures of the multiple regression: the full model, forward selection, backward elimination, stepwise procedure, R-squared procedure, and Mallow's C(p) procedure. These statistical procedures were used to select the best subsets of predictors for each of the five spiritual gifts clusters.

Population and Sample

The population of this study consisted of selected students and their spouses of the Seventh-day Adventist Theological Seminary and selected undergraduate students of Philippine Union College enrolled during the first semester of 1992. The selected students and their spouses of the Seventh-day Adventist Theological Seminary were a multi-racial group (Caucasians, Blacks, Hispanics, Asians, etc.), but dominantly Caucasian. However, despite some racial diversity they are considered representative of the broad North American cultural group, since more than 70% are North Americans. They are consisted of 346 males and 91 females.

Random sampling procedure was employed in selecting

subjects for the study among the undergraduate students of Philippine Union College. Undergraduate classes with 15 or more students were randomly numbered and 21 classes were randomly selected.

The size of the total sample was planned according to Maurice Kendall's recommendation in Multivariate Analysis (1975) to have "at least ten times as many observations as variables" (p. 11). Since there are 16 personality factors and five spiritual gifts clusters, the following formula yields 210 subjects per group:

$$(16 + 5) \times 10 = 210.$$

In order to be more confident of the stability of the correlation matrix, a larger sample was sought, approaching 15 times as many observations as variables:

$$(16 + 5) \times 15 = 315 \text{ subjects.}$$

As it was planned to study two subgroups--seminarians and Filipinos--the number of subjects needed was between 210 and 315 subjects for each of the subgroups.

Instrumentation

To measure personality factors and spiritual gifts clusters, it was necessary to select appropriate instruments. Two such instruments were utilized in this study: The Sixteen Personality Factor Questionnaire (16 PF), Form A by R. B. Cattell, D. R. Saunders, and G. F. Stice (1949), and the New Spiritual Gifts Inventory (NSGI) by R. C. Naden (1990b).

Sixteen Personality Factor Questionnaire
Formation

Cattell assumed that one could account for most of the information contained in the 4,504 adjectives with a small number of concepts. The primary tool with which Cattell had pursued his research was factor analysis. The basic problem with factor analysis was deciding what would be the precise number of factors needed to account for the larger number of variables or factors--in this case, 4,504. Then, he had to determine how few factors would be appropriate. Karson and O'Dell (1976) said:

These two problems--(1) finding out how few factors are needed to account for the larger number of variables, and (2) finding the relationship of the larger number of variables to the smaller number of factors--are the two basic problems that must be solved in any factor analysis. (p. 28)

Factor analysis is an extremely complex statistical process, which allows one to reduce a large number of concepts, such as 4,504 words, to the smallest number of underlying factors that would still account for most of the original information.

Cattell grouped the 4,504 words by sophisticated inspection into 171 categories, then reduced them to 36 categories, which he called surface traits, by correlational methods. The 36 categories could be handled by the methods available at the time and were factor analyzed. From them, a final group of 16 traits with the greatest variance were selected (Cattell, Eber, & Tatsuoka, 1970). There were also

additional second-order factors derived from a factor analysis of these 16 primary factors. These second-order factors describe broader aspects of human personality; many seem to be found in almost all scientifically developed personality tests (Lorr, Nerviano, & Myhill, 1985).

Subsequent editions of the 16 PF, including the construction of parallel forms (possibly better referred to as extended, repeated measurement forms), were published in 1956-57, 1961-62, and 1967-69.

Reliability

The consistencies of the 16 PF scales, that is, the agreement of the factor score with itself under changing conditions, are given in all relevant ways. Cattell, Eber, and Tatsuoka (1970) said:

The degree of reliability of a test--its agreement with itself when the administration is repeated on the same group--hinges partly on the construction of the test itself, partly on its mode of administration, and partly on its manner of scoring. The conspect reliability coefficient (agreement between two scores) evaluates the last mentioned, and, since the 16 PF is an objectively key--or machine--scored test, the conspect coefficients are potentially perfect, i.e., equal +1.0. (pp. 29-30)

The first type of consistency to consider is reliability or the agreement of the factor score over time. Reliability may be further subdivided into (1) dependability, i.e., short-term test-retest correlations, and (2) stability, i.e., retest after a longer interval. The dependability coefficients, with intervals of 2 to 7 days, were reported in the Manual for the 16 PF (see Table 3).

The stability coefficient, i.e., from a retest after a 2-month or longer interval, was also reported in the same manual (see Table 4).

The equivalence coefficient, that is correlation between alternate test forms (e.g., Forms A and B), was also presented in the manual as tests of reliability. This makes sense if forms are to be given in combination, since the equivalence coefficient would be, in essence, a split-half reliability. Adcock (1959) reported that on a general population sample of 450, the corrected split-half reliabilities of the factor scores range from .71 to .93, 10 coefficients being above .80, which was "quite good" (p. 198).

In its most recent standardization, norms were collected on over 15,000 people. Karson and O'Dell (1989) stated that reliability of the test is adequate (p. 64). Bloxom (1978) and Butcher (1985) also agreed that the estimates of reliability for combined forms based on test-retest correlations are generally satisfactory for the 16 PF.

Validity

Cronbach and Meehl (1955) have examined the construct validity in psychological testing and discussed four types of validation--namely, predictive validity, concurrent validity, content validity, and construct validity (p. 282). In this study four types of validity are examined: concept (construct) validity, content validity, predictive validity,

TABLE 3

16 PF DEPENDABILITY COEFFICIENTS

| Form | A | B | C | E | F | G | H | I | L | M | N | O | Q ₁ | Q ₂ | Q ₃ | Q ₄ |
|----------------|----|----|----|----|----|----|----|----|----|----|----|----|----------------|----------------|----------------|----------------|
| A ^a | 86 | 79 | 82 | 83 | 90 | 81 | 92 | 90 | 78 | 75 | 77 | 83 | 82 | 85 | 80 | 72 |
| A ^b | 81 | 58 | 78 | 80 | 79 | 81 | 83 | 77 | 75 | 70 | 61 | 79 | 73 | 73 | 62 | 81 |

^a Canadian subjects: N = 243 high school males and females.

^b American subjects: N = 146; 79 employment counselors and 67 undergraduate students.

Note: Decimal points are omitted.

TABLE 4

16 PF STABILITY COEFFICIENTS

| Form | A | B | C | E | F | G | H | I | L | M | N | O | Q ₁ | Q ₂ | Q ₃ | Q ₄ |
|----------------|----|----|----|----|----|----|----|----|----|----|----|----|----------------|----------------|----------------|----------------|
| A ^a | 80 | 43 | 66 | 65 | 74 | 49 | 80 | 85 | 75 | 67 | 35 | 70 | 50 | 57 | 36 | 66 |
| A ^b | 49 | 28 | 45 | 47 | 48 | 54 | 49 | 63 | 40 | 43 | 39 | 57 | 52 | 46 | 41 | 56 |
| A ^c | 62 | 23 | 48 | 52 | 52 | 46 | 64 | 53 | 42 | 49 | 21 | 52 | 51 | 50 | 41 | 51 |

^a Two-and-one-half-month interval, N = 44.

^b Four-year interval, N = 432 males.

^c Four-year interval, N = 204 females.

Note: Decimal points are omitted.

and universal validity.

Concept validity

Concept (or construct) validity means the validity of the test itself. Some forms of the 16 PF contain validity scales; for example, Form A contains three validity scales: a fake-bad scale, a random response scale, and a motivational distortion (fake-good) scale.

The authors of the Handbook for the 16 PF divided their validity assessment efforts into direct and indirect construct (or concept) comparisons. The direct validity was evaluated by correlating the scale score with pure factors it was designed to measure. The table of direct concept validity (Cattell et al., 1970, p. 35) given by the authors showed in the form of multiple correlation coefficients, representing the degree of relationship between each of those items that load the particular personality factor and the magnitude of the factor itself. Forms A and B were reported to have the greatest total direct validity where each form has seven scales, with validity coefficients of at least .70 magnitude. Indirect validities were also reported in the form of multiple correlation coefficients, representing the degree of relationship between each primary scale magnitude and the total remaining primary scale magnitudes in the 16 PF. The authors referred to this form of investigation as relating each specific factor with all other factors, namely, comparing all of what is "A" with all of what is determined as "not-A." As might be anticipated, correlational

coefficients fell below a .80 magnitude in only two instances: .63 for N factor and .74 for M factor (Cattell et al., 1970, p. 39).

Karson and Pool (1957) investigated construct validity of the 16 PF by means of correlating its factors with the Minnesota Multiphase Personality Inventory (MMPI) scales and their conclusion included that: "(a) both the 16 PF Test and the MMPI measure certain common areas of personality; (b) the 16 PF Test has certain advantages over the MMPI, inasmuch as it contains fewer items, but apparently possesses greater breadth" (p. 251).

Content validity

Cunningham (1986) defined the content-related validity "as the degree to which the set of items included on a particular test are representative of the entire domain of items that the test is intended to assess" (p. 127). Cattell's item factor analysis (1972) concluded that "the pursuit of maximum simple structure yields with a high degree of statistical significance the 16 particular factor patterns said to be there" (p. 186). Adcock, Adcock, and Walkey (1974) attempted to verify the 16 PF primary scales by interpretation of the psychological content of all items that defined the rotated factors and concluded: "the factors which do emerge are in many cases strikingly similar to the 16 PF factors as described" (p. 136). Becker (1961), Cattell and Gibbons (1968), and Cattell (1974) analyzed the 16 PF

parcels or scales separately, or in combination with parcels or scales from Guilford's inventories, and produced consistently positive conclusions. Although the studies on the validity of the 16 PF were not unanimous in their support, Bolton (1978) said, "the scientific foundation of the 16 PF is at least as solid as that of its major competitors" (p. 1080).

Predictive validity

Cattell and Eber (1964) reported an equation for predicting school grades based on certain personality factors. On the basis of this, Ayers and Bashaw (1969) studied the validity of the 16 PF in predicting high school academic achievement and supported the interpretations given by the 16 PF authors by stating that the correlation patterns of the 16 PF for predicting certain academic achievement fairly accurately describe the difference between good and bad students (p. 484).

The 16 PF was also used to point out potential or existing behavior difficulties, such as delinquency (Cowden, Schroeder, & Peterson, 1971) and anxiety (Gorman, 1970). It was also used as an aid in planning individualized programs for students; personnel selection and decision making (Porter, 1970); vocational guidance (Cattell, Day, & Meeland, 1956); clinical diagnosis (Hayward, 1970); and predictors of marital dimensions (Barton & Cattell, 1972). The 16 PF is generally accepted as an effective instrument to measure personalities and to predict certain characteristics.

Universal validity

Since part of the population of this study was Filipino, it was necessary to see if the 16 PF has any universality. The authors of the Handbook mentioned that one of the properties of the 16 PF in the area of validity is

a set of factors demonstrated to retain their conceptual validities as unitary source traits in other cultures, e.g., in French, Italian, German, Japanese, etc., translations, thus showing that its concepts are of substantial scientific universality. (Cattell et al., 1970, p. 14)

According to the Philippine Psychology Cooperation, the agency that administers the 16 PF in the Philippines, the 16 PF is widely used for Filipinos without language barriers, because Filipinos use English as their official language. They also use the universal norms of the 16 PF as their national norms for the Filipino population. The Handbook for the 16 PF also provided a cross-cultural personality profile (sten means and standard deviations) which included the Filipino sample. It showed that they used the college student norms for Filipinos to convert their raw scores to stens on the basis of universal norms (pp. 254, 255).

The New Spiritual Gifts Inventory

Formation

The original Spiritual Gifts Inventory (SIGI, 1981) was designed to make it "possible for Christians to answer questions regarding past service experiences that would approximate areas of high probability of spiritual giftedness" (Phoon, 1986, p. 62). In spite of some assets,

the SGI had serious liabilities: (1) "Lack of success in attempts to separate factors," (2) outdated gift names derived from the King James Version, (3) "inadequacy of a spiritual gifts model that includes only those gifts specifically named in the New Testament" (Naden, Swanson, & Thayer, 1992, pp. 1-2). The authors of the article, concerning the formation of a new inventory, stated:

With these three considerations in mind, an attempt was made to "cluster" the gifts based on both the observed points of commonality between some gifts in the biblical narrative and the results of the factor analysis used in the development of The Spiritual Gifts Inventory. The results of this work led to the development of the New Spiritual Gifts Inventory (NSGI, Naden, 1990), and has been widely used by many different denominations since that time. (Naden et al., 1992, p. 2)

The instrument is Likert-style and self-scoring, is composed of 20 statements, and asks responses on a 5-point scale. The total scores of each five-column factors range from 4 to 20. The factor(s) with the highest score represents the area(s) of most probable giftedness. The subjects are encouraged to consider the responses from two perspectives: primarily, the degree to which these statements have been true or false in their lives, or alternatively, what they believe their response would have been if they had had the opportunity to be involved in the activity described.

Reliability

The author of the NSGI used test-retest reliability measurements to provide a reliability coefficient. The

Manual (Naden, 1990a) presented test-retest results after the NSGI was administered twice with a set day interval between testings (see Table 5).

TABLE 5
RELIABILITY COEFFICIENTS (TEST-RETEST) FOR EACH ITEM
AND SPIRITUAL GIFTS CLUSTER

| Gift | Item | Reliability Coefficient | Group |
|-----------|------|-------------------------|-------|
| Teacher | A | .9376 | .9716 |
| Teacher | F | .8281 | |
| Teacher | K | .7967 | |
| Teacher | P | .9409 | |
| Shepherd | B | .9116 | .8973 |
| Shepherd | G | .7684 | |
| Shepherd | L | .7000 | |
| Shepherd | Q | .7977 | |
| Supporter | C | .7560 | .8357 |
| Supporter | E | .7209 | |
| Supporter | M | .7290 | |
| Supporter | R | .7798 | |
| Counselor | D | .6886 | .9061 |
| Counselor | I | .7755 | |
| Counselor | N | .7333 | |
| Counselor | S | .8889 | |
| Leader | E | .7736 | .8206 |
| Leader | J | .8244 | |
| Leader | O | .7271 | |
| Leader | T | .6997 | |

Validity

Validity was carried out in a two-part study by the author of the NSGI. The first study concerned whether the NSGI items represent the factors (spiritual gifts clusters). This question is at the heart of construct validity of the NSGI. The Manual also provided the results of the factor analysis (see Table 6).

In the second part of the study the items were

submitted to a panel of experts to identify what factors were represented on each of the 20 items. The study yielded coefficients of agreement that ranged from .87 (4 items) to 1.00 (16 items) (see Table 7).

TABLE 6
NSGI ITEMS WITH FACTOR LOADINGS (>.5)
 BY EACH FACTOR (N = 859)

| | Factors | | | | |
|---|---------|-------|-------|-------|-------|
| | 1 | 2 | 3 | 4 | 5 |
| A | 0.838 | | | | |
| F | 0.775 | | | | |
| K | 0.736 | | | | |
| P | 0.706 | | | | |
| B | | 0.636 | | | |
| G | | 0.587 | | | |
| L | | 0.519 | | | |
| Q | | 0.501 | | | |
| D | | | 0.710 | | |
| I | | | 0.700 | | |
| S | | | 0.624 | | |
| N | | | 0.624 | | |
| E | | | | 0.664 | |
| J | | | | 0.649 | |
| O | | | | 0.607 | |
| T | | | | 0.535 | |
| C | | | | | 0.684 |
| H | | | | | 0.641 |
| M | | | | | 0.581 |
| R | | | | | 0.537 |

TABLE 7
 AGREEMENT OF EXPERTS FOR NSGI

| Item | Gift | Coefficient of Agreement |
|------|-----------|-----------------------------|
| A | Teacher | 1.00 |
| F | Teacher | 1.00 |
| K | Teacher | .87 |
| P | Teacher | 1.00 |
| B | Shepherd | .87 |
| G | Shepherd | .87 |
| L | Shepherd | 1.00 |
| Q | Shepherd | 1.00 |
| C | Supporter | 1.00 |
| H | Supporter | 1.00 |
| M | Supporter | 1.00 |
| R | Supporter | 1.00 |
| D | Counselor | 1.00 |
| I | Counselor | .87 |
| N | Counselor | 1.00 |
| S | Counselor | 1.00 |
| E | Leader | 1.00 |
| J | Leader | 1.00 |
| O | Leader | 1.00 |
| T | Leader | 1.00 |

Procedure for Collecting Data

The data from the Seminarian group was collected by the Seventh-day Adventist Theological Seminary at Andrews University from 1989 to 1992. At the time of their enrollment in graduate school, the seminarians and their spouses were invited to participate in this study by completing both the NSGI and the 16 PF. The accumulated number of subjects was 437. Upon their participation, the subjects agreed to have their test scores released for the research on the relationship between spiritual gifts and personality factors.

On May 5, 1992, a letter requesting permission to carry out surveys with a cross-section of the students at Philippine Union College was sent to the Dean of the Graduate School (see Appendix A). The researcher obtained authorization from Philippine Union College on August 24, 1992, and visited the campus in the Philippines to request a list of all the undergraduate classes with the names of the teachers and the number of students in the class, during the first semester, 1992. Undergraduate classes with 15 or more students were randomly numbered and 21 classes were randomly selected. The teachers of the classes were approached for permission to take 5 minutes of the class time to explain the two instruments (the 16 PF and the NSGI) and to invite the students to meet in an auditorium with the students from the other classes to take the questionnaire tests together at the end of the class period. About 100 students were gathered at a time to spend about an hour on the tests.

Hypotheses and Statistical Analysis

For the purpose of statistical analysis the hypotheses are stated here in the null form.

Hypothesis 1

Among the seminarian respondents, there is no significant multiple correlation between each of the spiritual gifts clusters and personality factors indicated by the 16 PF.

Hypothesis 2

Among the Filipino respondents, there is no significant multiple correlation between each of the spiritual gifts clusters and personality factors indicated by the 16 PF.

The hypotheses were tested with six statistical procedures of the multiple-regression analyses (full model, forward selection, backward elimination, stepwise procedure, R-squared procedure, and Mallow's C(p) procedure). These various techniques were used in the selection of personality factors that best describe or predict the spiritual gifts clusters. A full discussion of these various multiple regression techniques is presented in Chap. 4.

For hypotheses each of the spiritual gifts clusters indicated by the NSGI was taken as a dependent variable with the 16 personality factors indicated by the 16 PF as independent variables. The criteria in selecting the best prediction model were as follows: (1) The selected "best" model should account for at least 10% of the variance in the criterion variable. That is, $R^2 > 0.10$; (2) R^2 is significant at $\alpha = 0.05$; (3) the multiple R-squared was at least 1% better than other models; and (4) the selected model must be incorporated with hypothesized variables.

The statistical treatment of data was performed on the computer at the Center for Statistical Services of Andrews University. The data file includes sten scores of the 16 personality factors from the 16 PF and raw scores on

each of the five spiritual gifts clusters of the NSGI.

Summary

This chapter has presented the research design and methodology of a possible canonical correlation between personality factors and spiritual gifts clusters, and multiple regression of each of the five spiritual gifts clusters with personality factors. The Sixteen Personality Factor Questionnaire and The New Spiritual Gifts Inventory used in this study were described. Procedures for selecting the sample, gathering the data, and performing the statistical analyses were also explained. Two hypotheses in their null form were stated.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

This chapter presents the analyses of the data concerning the possible relationship between 16 personality factors and five spiritual gifts clusters and the best prediction models of personality factors for each of the spiritual gifts clusters. The results and discussion of the results are presented in order of the hypotheses listed in chapters 1 and 3.

Description of Sample

The subjects in this study were selected students and their spouses of the Seventh-day Adventist Theological Seminary, Berrien Springs, Michigan (1989-1992), and selected undergraduate students of Philippine Union College, Silang, Philippines, enrolled during the first semester of 1992. At the time of their enrollment in graduate school, the seminarians and their spouses were invited to participate in this study by completing both the NSGI and the 16 PF. The accumulated number of subjects was 437 (346 males and 91 females). The selected students and their spouses of the Seventh-day Adventist Theological Seminary were a multi-racial group (Caucasians, Blacks, Hispanics, Asians, etc.),

but dominantly Caucasian. However, despite some racial diversity, they are considered representative of the broad North American cultural group, since more than 70% are North Americans.

Four hundred and ten sets of instruments were administered to students in 21 undergraduate classes of Philippine Union College. Four hundred and three subjects responded producing 399 sets of usable returns. The subjects in the Filipino sample were the students of various majors (e.g., Theology, English, Psychology, etc.) and consisted of 206 males and 193 females.

Tables 8 and 9 show the means and standard deviations of the seminarian and Filipino samples--437 seminarians and 399 Filipinos. The scores of the spiritual gifts clusters were the raw scores; the higher scores represent the area(s) of more probable giftedness. The scores of the 16 personality factors are in sten scores (ten equal-interval standard score points from 1 through 10).

For the seminarian sample, the mean score for each of the five spiritual gifts clusters of NSGI ranged from 16.4 (standard deviation of 2.9) to 15.1 (standard deviation 2.3). Based on a possible score of 20 for each cluster, the data suggest that these seminarians score quite high on the five spiritual gifts clusters. Among the personality factors for the seminarian sample, factor B had the highest mean, 6.9, and a standard deviation of 1.8. Factor Q₁ had the lowest mean, 4.9, and a standard deviation of 1.9. The scores on

each of the 16 factors were within the normal ranges.

For the Filipino sample, the mean score for each of the five spiritual gifts clusters ranged from 16.5 (standard deviation 2.7) to 14.7 (standard deviation 3.2). Similar to the seminarians, the Filipinos scored quite high on the five spiritual gifts clusters. Among the personality factors for the Filipino sample, factor N had the highest mean, 6.7, and a standard deviation of 1.9. Factor F had the lowest mean, 3.5, and a standard deviation of 1.4. The scores on each of the 16 factors were within the normal ranges.

Testing of Hypotheses and Discussion of the Findings

The statistical tool used for examining the relationship between the 16 personality factors and the five spiritual gifts clusters was multiple regression.

It is true that the correlation matrices (Appendix C) show that spiritual gifts clusters are correlated with each other, which suggests that persons may have more than one of the five spiritual gifts, but the purpose of this study was to find unique prediction models for each spiritual gifts cluster by univariate analysis which considers each variable as a single source of variance.

For the two hypotheses, multiple regression procedures were used to determine the best-fitting regression model for describing the relationship between each of the five spiritual gifts clusters and the 16 personality factors. Since this is highly exploratory, six multiple regression

TABLE 8
 MEANS AND STANDARD DEVIATION FOR THE VARIABLES OF
 THE SEMINARIAN SAMPLE (N = 437)

| Variable | Mean | Standard Deviation |
|---------------------------|--------|--------------------|
| 1. Teacher | 16.371 | 2.980 |
| 2. Shepherd/Evangelist | 15.121 | 2.980 |
| 3. Support | 15.314 | 2.829 |
| 4. Counsel | 15.108 | 2.343 |
| 5. Leader | 15.831 | 2.573 |
| 6. Factor A | 5.808 | 2.085 |
| 7. Factor B | 6.950 | 1.837 |
| 8. Factor C | 5.188 | 1.806 |
| 9. Factor E | 5.245 | 2.024 |
| 10. Factor F | 5.229 | 2.153 |
| 11. Factor G | 5.872 | 1.799 |
| 12. Factor H | 5.691 | 2.108 |
| 13. Factor I | 6.863 | 1.829 |
| 14. Factor L | 5.913 | 1.918 |
| 15. Factor M | 5.492 | 1.854 |
| 16. Factor N | 6.027 | 2.109 |
| 17. Factor O | 5.572 | 1.847 |
| 18. Factor Q ₁ | 4.947 | 1.852 |
| 19. Factor Q ₂ | 6.135 | 1.966 |
| 20. Factor Q ₃ | 5.744 | 1.918 |
| 21. Factor Q ₄ | 6.089 | 1.901 |

TABLE 9
 MEANS AND STANDARD DEVIATION FOR THE VARIABLES OF
 THE FILIPINO SAMPLE (N = 399)

| Variable | Mean | Standard Deviation |
|---------------------------|--------|--------------------|
| 1. Teacher | 14.747 | 3.206 |
| 2. Shepherd/Evangelist | 16.391 | 3.025 |
| 3. Support | 16.486 | 2.667 |
| 4. Counsel | 15.722 | 2.657 |
| 5. Leader | 16.098 | 2.513 |
| 6. Factor A | 5.308 | 1.613 |
| 7. Factor B | 4.722 | 2.004 |
| 8. Factor C | 4.957 | 1.719 |
| 9. Factor E | 5.759 | 1.583 |
| 10. Factor F | 3.514 | 1.383 |
| 11. Factor G | 6.291 | 1.560 |
| 12. Factor H | 5.381 | 1.590 |
| 13. Factor I | 5.810 | 1.911 |
| 14. Factor L | 5.684 | 1.906 |
| 15. Factor M | 4.852 | 1.779 |
| 16. Factor N | 6.689 | 1.864 |
| 17. Factor O | 6.373 | 1.819 |
| 18. Factor Q ₁ | 5.584 | 1.696 |
| 19. Factor Q ₂ | 5.068 | 1.710 |
| 20. Factor Q ₃ | 6.449 | 1.780 |
| 21. Factor Q ₄ | 5.000 | 1.561 |

procedures were tested to select the best regression models. These were: (1) the full model, (2) the forward selection, (3) the backward elimination, (4) the stepwise procedure, (5) the R-squared procedure, and (6) the Mallow's C(p) procedure.

Full model: Sometimes called the standard regression model, this procedure is the default in most major statistical packages. This procedure provides no model selection capability. In this procedure, all independent variables (IVs) enter into the regression equation simultaneously.

Each one is assessed as if it had entered the regression after all other IVs had entered. Each IV is evaluated in terms of what it adds to prediction of the dependent variable (DV) that is different from the predictability afforded by all the other IVs. (Tabachnick & Fidell, 1989, p. 143)

Forward selection: The forward selection technique begins with no variables in the model. Then the variable most highly correlated with the dependent variable is entered. The next predictor variable entered is the one with the highest partial correlation with the dependent variables, with the effects of the first variable partialled out. The result is that this variable will have the greatest increase in R^2 ; that is, the predictor variable that accounts for the greatest remaining variance in the dependent variable after the effect of the first predictor variable has been removed. Subsequent variables are similarly selected until the increase in R^2 is no longer statistically significant or all the independent variables are included (Hinkle, Wiersma, & Jurs, 1988). The criteria for selecting the "best" model in

this procedure was that the predictor variable must contribute at least 1% of the variance in the criterion variable. In most cases, this resulted in selected variables significant at the 0.05 level.

Backward selection: The backward elimination technique begins by calculating statistics for the full model; that is, all predictor variables are entered into the equation. Then variables are deleted from the model one by one if they do not make a significant contribution to the regression model (Hinkle et al., 1988). Again, the criteria used in the procedure was that for predictor variables to stay in the equation, they must be able to "explain" at least 1% of the variance.

Stepwise procedure: The stepwise procedure is a variation of the forward selection technique. The predictor variable is selected in a similar manner, with the exception that at each step after a new predictor variable is added to the model "another significance test is conducted to determine the contribution of each of the previously selected predictor variables, as if it were the last variable entered" (Hinkle et al., 1988, p. 479). Thus, it is possible that a variable may be dropped from the model if its contribution in combination with the newly selected predictor variables is deemed insignificant. As in the forward and backward selection procedure, the criteria for inclusion in the model was that the variable must contribute at least 1% of the variance. Again, in most cases, the predictor variables were

significant at the 0.05 level.

R-squared procedure: This procedure uses the "all-possible-subset" approach in which subsets of independent variables that best predict a dependent variable by linear regression are found. The subsets found are optimal in terms of R^2 . In the Statistical Analysis System (SAS), the REG procedure with SELECTION = R-SQUARE generates subsets of one-variable models, two-variable models, three-variable models, and so on. The models in each subset are arranged in descending order according to R^2 . Obviously, the model with the highest R^2 will be the full model (SAS/STAT User's Guide, 1988). The task for the researcher is to choose which one he/she would consider the "best." The process for selecting the "best" model in this study was done by comparing the best one-variable model (i.e., the model with the highest R^2) with the best two-variable model which, in turn, is compared with the best three-variable model and so on. This process is repeated until the difference between adjacent best models (in terms of R^2) does not exceed 1%. The model chosen is the smaller (in number of predictor variables) of the adjacent models.

Mallow's C(p) Procedure: In SAS, the PROC REG SELECTION = C(p) procedure uses an approach similar to the R-squared procedure for selecting the "best" model, with the exception that it uses Mallow's C(p) statistic as the criterion for model selection. It identifies the "best" model as the model with the lowest C(p) and prints various

models in ascending order according to the size of $C(p)$. The task for the researcher is to decide whether to accept the default (i.e., what the computer identified as the "best") or some other model with perhaps slightly larger $C(p)$ but clearly as (or more) meaningful yet with little difference in R^2 . However, in using this process, the $C(p)$ associated with the selected model must not be greater than the number of parameters by 1. For example, if the "best" model selected has five predictor variables, then the $C(p)$ should not be greater than 6.

The tables for the best prediction model of each cluster that was considered gave the standardized coefficient (b), multiple R-squared (R^2), and the F-statistics. For the $C(p)$ procedure, Mallows' $C(p)$ is also given. For the full model, significant β weights ($p < .05$) were marked with asterisks.

The criteria in selecting the best prediction model were as follows: (1) the multiple correlation was to be significant, with $p < .05$; (2) the multiple R-squared was to be $> .1000$; (3) the multiple R-squared was at least 1% better than other models; and (4) the selected model must be incorporated with hypothesized variables.

There could be several reasons why the regression models differ from the hypothesized models: (1) The hypothesized model may misinterpret the theory; (2) a certain personality factor may be eliminated because some other correlated factor is a superior predictor; (3) the theory was

based on a distribution of scores from an average North American sample, whereas relatively high (low) scores for this sample may be different from high (low) scores from the seminarian or Filipino college sample; (4) the model works with either the seminarian sample or the Filipino sample, because of cultural differences; (5) the subjects are from students, and diverse findings may be elicited from an all lay, mature sample.

The correlation matrices (Appendices C) show that all of the 16 personality factors are not highly correlated with each other (the highest for the seminarians--H and F (.54) and for the Filipinos--Q₄ and O (.37). Thus, it is unlikely that the elimination of a factor from the hypothesized model occurred because it is highly correlated with a retained factor.

Hypothesis 1

Hypothesis 1 states that among the seminarian respondents there is no significant multiple correlation between each of the spiritual gifts clusters and personality factors indicated by the 16 PF.

Teacher Cluster

Table 10 indicates the best prediction models based on six multiple regression procedures for the teacher cluster as the dependent variable for the seminarian sample. The full model can account for 17.1% of the variance; 15.8% is accounted for by the "best" model (six variables) produced by

TABLE 10

BEST PREDICTION MODEL WITH THE TEACHER
CLUSTER AS DEPENDENT VARIABLE
FOR THE SEMINARIAN SAMPLE

| Factors | Full Model | Stepwise | Forward | Backward | Mallow's C(p) | R-squared |
|----------------|------------|----------|---------|----------|---------------|-----------|
| A | -.009 | | | | | |
| B | -.006 | | | | | |
| C | .048 | | | | .079 | |
| E | .132* | | | | .104 | |
| F | .028 | | | | | |
| G | .048 | | | | | |
| H | .195* | .314(1) | .314(1) | .314 | .261 | .314 |
| I | .078 | | | | .077 | |
| L | .019 | | | | | |
| M | .194* | .196(2) | .196(2) | .196 | .182 | .196 |
| N | .129* | .112(3) | .112(3) | .112 | .134 | .112 |
| O | -.025 | | | | | |
| Q ₁ | -.048 | | | | | |
| Q ₂ | -.064 | | | | | |
| Q ₃ | .023 | | | | | |
| Q ₄ | -.051 | | | | | |
| R ² | .171 | .142 | .142 | .142 | .158 | .142 |
| C _p | | | | | 3.561 | |
| F value | 5.41 | 5.76 | 5.76 | 23.81 | 13.44 | 23.81 |

Numbers in () indicate the order of step.

Mallow's C(p) method; and 14.2% by the three predictor model identified by stepwise, forward, backward, and R-squared procedures. An examination of the various models suggests a three-predictor model is viable. Factors H+, M+, and N+ have high and stable β s. Thus, the model selected by stepwise, forward, backward, and R-squared procedures is chosen.

A person high in H factor is not usually intimidated dealing with people. He/she is friendly, active, responsive, and carefree. These are ideal qualities for a teacher.

A high factor M score includes imaginative creativity, an attractive quality for teachers. Birkin (1969) found that creativity in students may be fostered by a teacher with high M and N factors. The Handbook for the 16 PF (Cattell et al., 1970) reported that studies on high-school teachers and university professors revealed M factors and N factors were high for those teaching professions (p. 183). The teacher cluster would include conducting classes and seminars, writing articles and lessons, preparing curriculum, and editing books. The high N factor, with its efficiency and polish, is desirable for such activities.

The regression model has only three of the five hypothesized personality factors. Factors A+ (warm) and Q₃+ (self-control) are missing. Though it is an unusual finding, a possible explanation is that the seminarians who would teach the exact Bible truth are not necessarily warm. The seminarian is considered to be a "self-controlled" group. It may be that those who score low on Q₃ did not score high on the teacher cluster.

Shepherd/Evangelist Cluster

Table 11 shows the best prediction model with the shepherd/evangelist cluster as the dependent variable for the seminarian sample. The full model can account for 15.6% of the variance; 13.9% is accounted for by the "best" model (five variables) produced by Mallow's C(p) method; and 13.3% by the four predictor variables identified by stepwise,

TABLE 11

BEST PREDICTION MODEL WITH THE SHEPHERD/EVANGELIST
CLUSTER AS DEPENDENT VARIABLE
FOR THE SEMINARIAN SAMPLE

| Factors | Full Model | Stepwise | Forward | Backward | Mallow's C(p) | R-squared |
|----------------|------------|----------|----------|----------|---------------|-----------|
| A | .036 | | | | | |
| B | -.136* | -.154(3) | -.154(3) | -.154 | -.150 | -.154 |
| C | -.037 | | | | | |
| E | -.086 | | | | | |
| F | -.029 | | | | | |
| G | .084 | | | | .086 | |
| H | .228* | .222(1) | .222(1) | .222 | .222 | .222 |
| I | .006 | | | | | |
| L | .057 | | | | | |
| M | .047 | | | | | |
| N | .032 | | | | | |
| O | -.054 | | | | | |
| Q ₁ | -.116* | -.137(4) | -.137(4) | -.137 | -.140 | -.137 |
| Q ₂ | -.059 | | | | | |
| Q ₃ | .099 | .153(2) | .153(2) | .153 | .118 | .153 |
| Q ₄ | -.019 | | | | | |
| R ² | .156 | .133 | .133 | .133 | .139 | .133 |
| C _p | | | | | 3.788 | |
| F value | 4.89 | 16.59 | 16.59 | 16.59 | 13.95 | 16.59 |

Numbers in () indicate the order of step.

forward, backward, and R-squared procedures. An examination of the various models suggests a five-predictor model is viable. Factors H+, Q₃+, B-, Q₁-, and G+ have high and stable βs. Thus, the model selected by Mallow's C(p) procedure is chosen.

Factor H+ indicates bold, venturesome, active, and meeting people easily. It is ideal for those with high H to be moderated with Q₃+ (self-control). A higher G factor score describes a conscientious, persevering, emotionally

disciplined person who is concerned about moral standards and rules. Along with low Q₁ factor's conservatism and traditionalism, it is difficult for such a person to yield to liberal or radical ideas. These are valued qualities for the shepherds in the evangelical parochial context.

Factor B- (more concrete than abstract thinking) for the shepherd/evangelist cluster may seem strange. However, a person with B- would handle well regular and routine work rather than abstract ideas, and such may well be the lot of the regular shepherd/evangelist. Another possible explanation may be that most of the seminarians scored high on factor B as Table 8 shows, but the ones who scored high on the shepherd/evangelist cluster tended to score lower on factor B. Factors A+ and F- are missing in this regression model, whereas the Filipino model for shepherd/evangelist cluster includes A+ and F-, which may suggest that warmth and seriousness are more predictable for the shepherd/evangelist ministries in the Oriental culture.

Supporter Cluster

Table 12 shows the best prediction model with the supporter cluster as the dependent variable for the seminarian sample. The full model can account for 15.5% of the variance; 14.5% is accounted for by the "best" model (seven variables) produced by Mallow's C(p) method; 12.1% by four variables by R-squared procedure; and 13.8% by the six predictor variables identified by stepwise, forward, and

TABLE 12

BEST PREDICTION MODEL WITH THE SUPPORTER
CLUSTER AS DEPENDENT VARIABLE
FOR THE SEMINARIAN SAMPLE

| Factors | Full Model | Stepwise | Forward | Backward | Mallow's C(p) | R-squared |
|----------------|------------|----------|----------|----------|---------------|-----------|
| A | .091 | | | | .083 | |
| B | -.094 | -.103(3) | -.103(3) | -.103 | -.099 | -.118 |
| C | -.023 | | | | | |
| E | -.067 | | | | | |
| F | -.027 | | | | | |
| G | .124* | .136(2) | .136(2) | .136 | .134 | .182 |
| H | .134* | .157(4) | .157(4) | .157 | .130 | .119 |
| I | -.023 | | | | | |
| L | .032 | | | | | |
| M | .007 | | | | | |
| N | -.091 | | | | | |
| O | .121* | .137(5) | .137(5) | .137 | .138 | |
| Q ₁ | -.009 | | | | | |
| Q ₂ | -.033 | | | | | |
| Q ₃ | .129* | .111(6) | .111(6) | .111 | .115 | |
| Q ₄ | -.218* | -.224(1) | -.224(1) | -.224 | -.225 | -.197 |
| R ² | .155 | .138 | .138 | .138 | .145 | .121 |
| C _p | | | | | 4.000 | |
| F value | 4.81 | 11.52 | 11.52 | 11.52 | 10.37 | 14.88 |

Numbers in () indicate the order of step.

backward procedures. An examination of the various models suggests a six-predictor model is viable. Factors Q₄-, H+, O+, Q₃+, G+, and B- have high and stable βs. Thus, the model selected by stepwise, forward, and backward procedures is chosen. This model is chosen because it more closely matches the hypothesized model even though it does not explain an additional 1% per variable.

When Q₄ factor is low, a person is typically relaxed, composed, and rarely frustrated. These traits would be

helpful for supporting ministries in the church which include such activities as collecting food for the needy, fixing a meal for a patient, chopping wood for an elderly person, assisting the handicapped, and visiting those in hospital and prison. Other activities such as putting up seminar posters, caring for church grounds, opening the church for services, and serving in the kitchen need high G factor's qualities such as being persistent, responsible, disciplined, ordered, and having a strong sense of duty.

Someone with low B factor is "able to work better with simple things than with complex ideas," and handle routine work (Chalmers & Chalmers, 1979, p. 38), tends to work with his/her hands. According to the Handbook for the 16 PF, high H and Q₃ are associated with success in organized activities (Cattell et al., 1970, pp. 92, 107), which is related to the supporting function in the church.

The O⁺ factor and the Q₄⁻ factor are essentially opposite, because O⁺ indicates apprehensive, worrying, and Q₄⁻ indicates relaxed and unfrustrated. However, O⁺ does not indicate "the individual's being irrationally worried, tense, irritable, anxious, and turmoil," as Q₄⁺ is described (Cattell et al., 1970, p. 108). Some of the characteristics of the high O factor are a strong sense of obligation and sensitivity to people's approval and disapproval, which match a supporter's characteristics. The hospitality, giving, and intercessory gifts of the supporter cluster need low Q₄ factor's relaxed, unfrustrated, composed attitudes, and these

traits suggest a healthy balance to the anxieties of high O.

The regression model has all six hypothesized personality factors.

Counselor Cluster

Table 13 shows the best prediction model with the counselor cluster as the dependent variable for the seminarian sample. The full model can account for 16.5% of the variance; 14.8% is accounted for by the "best" model (five variables) produced by Mallow's C(p) method; and 13.6%

TABLE 13
BEST PREDICTION MODEL WITH THE COUNSELOR
CLUSTER AS DEPENDENT VARIABLE
FOR THE SEMINARIAN SAMPLE

| Factors | Full Model | Stepwise | Forward | Backward | Mallow's C(p) | R-squared |
|----------------|------------|----------|----------|----------|---------------|-----------|
| A | -.033 | | | | | |
| B | .024 | | | | | |
| C | .064 | | | | | |
| E | .164* | .180(3) | .180(3) | .180 | .169 | .180 |
| F | .032 | | | | | |
| G | .007 | | | | | |
| H | .164* | .175(1) | .175(1) | .175 | .177 | .175 |
| I | .063 | | | | | |
| L | .078 | | | | | |
| M | .057 | | | | | |
| N | .041 | | | | | |
| O | -.008 | | | | | |
| Q ₁ | .071 | | | | .082 | |
| Q ₂ | .014 | | | | | |
| Q ₃ | .090 | | | | .090 | |
| Q ₄ | -.154* | -.191(2) | -.191(2) | -.191 | -.167 | -.191 |
| R ² | .165 | .136 | .136 | .136 | .148 | .136 |
| C _p | | | | | 3.403 | |
| F value | 5.18 | 22.66 | 22.66 | 22.66 | 14.99 | 22.66 |

Numbers in () indicate the order of step.

by the three predictor variables identified by stepwise, forward, backward, and R-squared procedures. An examination of the various models suggests a three-predictor model is viable. Factors H+, Q4-, and E+ have high and stable β s. Thus, the model selected by stepwise, forward, backward, and R-squared procedures is chosen.

The regression model has only one of the seven hypothesized personality factors. For non-professional Christian counselors who often deal with crises in the church as well as assist those with private struggles it may not be desirable to have H factor's boldness and E factor's dominance. However, H+ includes friendliness and responsibility that would be helpful for Christian counselors. Q4- factor's relaxed, unfrustrated, and composed drive would also be an advantage for Christian counselors. This working model is quite different from the hypothesized model which was based mainly on a model for professional employment counselors. It now seems probable that there are numerous differences between non-professional Christian counselors, and professional employment counselors.

Leader Cluster

Table 14 indicates the best prediction model for the leader cluster as the dependent variable for the seminarian sample. The full model can account for 27.8% of the variance; 26.7% is accounted for by the "best" model (eight variables) produced by Mallow's C(p) method; 26.2% by seven

TABLE 14

BEST PREDICTION MODEL WITH THE LEADER
CLUSTER AS DEPENDENT VARIABLE
FOR THE SEMINARIAN SAMPLE

| Factors | Full Model | Stepwise | Forward | Backward | Mallow's C(p) | R-squared |
|----------------|------------|----------|----------|----------|---------------|-----------|
| A | .002 | | | | | |
| B | -.091* | | | -.094 | -.091 | |
| C | .073 | | | | | |
| E | .205* | .192(4) | .192(4) | .202 | .181 | .192 |
| F | .005 | | | | | |
| G | .163* | .166(2) | .166(2) | .166 | .156 | .166 |
| H | .200* | .217(1) | .217(1) | .197 | .198 | .217 |
| I | -.047 | | | | | |
| L | .084 | | | | .076 | |
| M | .122* | | | .094 | .103 | |
| N | .049 | | | | | |
| O | -.150* | -.164(3) | -.164(3) | -.154 | -.171 | -.164 |
| Q ₁ | -.049 | | | | | |
| Q ₂ | .005 | | | | | |
| Q ₃ | .140* | .135(5) | .135(5) | .143 | .153 | .134 |
| Q ₄ | .029 | | | | | |
| R ² | .278 | .248 | .248 | .262 | .267 | .248 |
| C _p | | | | | 7.400 | |
| F value | 10.08 | 28.49 | 28.49 | 21.72 | 19.44 | 28.49 |

Numbers in () indicate the order of step.

variables by backward procedure; and 24.8% by the five predictor variables identified by stepwise, forward, and R-squared procedures. An examination of the various models suggests a five-predictor model is viable. Factors H+, G+, O-, E+ and Q₃+ have high and stable βs. Thus, the model selected by stepwise, forward, and R-squared procedures is chosen.

Cattell and Stice (1954) noted that the H+ person's boldness and sociability plus a high Q₃ score would be

predictive of a leader. A high H factor means bold, active, adventurous. Often these are also characteristics of leaders. The H+ person often results in a significantly greater probability of becoming a leader (Cattell & Stice, 1954). One of the gifts in the leader cluster is the gift of administration, and H factor is high in administrators (Cattell et al., 1970, p. 92).

Christian leadership, which involves such activities as taking the initiative in new outreach programs, sometimes demands boldness and ascendance--high E with high H. The Handbook for the 16 PF stated that factor E "is somewhat higher in established leaders than in followers," and "groups averaging high on E show more effective role interaction and democratic procedure" (Cattell et al., 1970, p. 86). A high G score also was evaluated as significantly related to leadership by the Handbook (p. 90). Christian leaders also need to be conscientious, persevering, and emotionally disciplined people who are concerned about moral standards and rules (G+); they also are self-controlled (Q₃+).

Serenity, an inner peace, and confidence are important in leaders and the leader cluster is correlated with a low O factor which indicates these traits. It is noteworthy that "high O factor is strongly weighted against successful leadership" (Cattell et al., 1970, p. 102).

When a leader is conscientious (G+), the O- traits such as inner peace, confidence, and self-assuredness would be justified. On the other hand, if one is expedient (G-)

and the factor O is low, one would have very little concern when God's rules were disregarded. Thus, it is important for a Christian leader to have both high G and low O traits.

This working model is identical with the hypothesized model for the leader cluster, indicating that church leadership somewhat reflects leadership in society at large.

In testing Hypothesis 1, each of the five spiritual gifts clusters was significantly correlated with personality factors indicated by the 16 PF. However, the regression models for some of clusters include only some of the factors that were predicted in hypothesized models.

Summary of Testing Hypothesis 1

Table 15 summarizes the best prediction personality factor models for the five spiritual gifts clusters among the seminarian sample.

TABLE 15
 BEST PREDICTION PERSONALITY FACTORS FOR THE SPIRITUAL
 GIFTS CLUSTERS AMONG THE SEMINARIAN SAMPLE

| Gifts Clusters | Predicting Personality Factors |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Teacher | H+ (Sociability) M+ (Imaginative, Creative) N+ (Insightful, Shrewd) |
| Shepherd/ Evangelist | H+ (Bold, Venturesome, Responsive) Q ₃ + (Self-control) B- (Concrete thinking) Q ₁ - (Conservative) G+ (Conscientious, Persevering) |
| Supporter | Q ₄ - (Relaxed, Composed, Unfrustrated) G+ (Conscientious) H+ (Bold, Uninhibited) B- (Concrete-thinking) |
| Counselor | H+ (Socially bold) Q ₄ - (Relaxed, Unfrustrated) E+ (Assertive) |
| Leader | H+ (Venturesome, Sociability) E+ (Dominant, Competitive, Bossy) G+ (Conscientious, Rule-bound, Staid) O- (Inner peace, Confident, Self-assured) Q ₃ + (Self-control) |

Hypothesis 2

Hypothesis 2 states that among the Filipino respondents, there is no significant multiple correlation between each of the spiritual gifts clusters and personality factors indicated by the 16 PF.

Teacher Cluster

Table 16 indicates the best prediction model for the teacher cluster as the dependent variable for the Filipino sample. The full model can account for 11.6% of the variance; and the four predictor variables identified by stepwise, forward, backward, Mallow's C(p), and R-squared account for 10.3% of the variance. An examination of the various models suggests a four-predictor model is viable. Factors H+, Q₃+, F-, and A+ have high and stable β s. Thus, the model selected by stepwise, forward, backward, Mallow's C(p), and R-squared procedures is chosen.

An individual high in factors H and A likes people. The friendly and active personality of the H+ person is natural for teachers, and the warmhearted, trustful, and attentive characteristics of A+ person are also typical for successful teachers. These qualities are counter balanced with the seriousness and self-control that F- and Q₃+ indicate.

However, this working model does not match with the hypothesized model, mainly the serious and sober traits that F- indicates. It may well be that Christian Filipino

TABLE 16
 BEST PREDICTION MODEL WITH THE TEACHER
 CLUSTER AS DEPENDENT VARIABLE
 FOR THE FILIPINO SAMPLE

| Factors | Full Model | Stepwise | Forward | Backward | Mallow's C(p) | R-squared |
|----------------|------------|----------|----------|----------|---------------|-----------|
| A | .102* | .099(4) | .099(4) | .099 | .099 | .099 |
| B | -.029 | | | | | |
| C | .014 | | | | | |
| E | .030 | | | | | |
| F | -.129* | -.118(3) | -.118(3) | -.118 | -.118 | -.118 |
| G | .004 | | | | | |
| H | .237* | .276(1) | .276(1) | .276 | .276 | .276 |
| I | -.065 | | | | | |
| L | -.038 | | | | | |
| M | .039 | | | | | |
| N | -.036 | | | | | |
| O | .003 | | | | | |
| Q ₁ | -.006 | | | | | |
| Q ₂ | -.063 | | | | | |
| Q ₃ | .125* | .119(2) | .119(2) | .119 | .119 | .119 |
| Q ₄ | .020 | | | | | |
| R ² | .116 | .103 | .103 | .103 | .103 | .103 |
| C _p | | | | | -1.624 | |
| F value | 3.12 | 11.34 | 11.34 | 11.34 | 11.34 | 11.34 |

Numbers in () indicate the order of step.

teachers have a sense of the seriousness of the implications of the gospel.

Factor M+ and N+ are missing, which may suggest that culturally imagination and efficiency do not fit well with the typical teacher profile in the Oriental culture.

Shepherd/Evangelist Cluster

Table 17 shows the best prediction model with the shepherd/evangelist cluster as the dependent variable for the Filipino sample. The full model can account for 14.4% of the

variance; 13.3% is accounted for by the "best" model (five variables) produced by Mallow's C(p) method; and 12.5% by the four predictor variables identified by stepwise, forward, backward, and R-squared. An examination of the various models suggests a five-predictor model is viable. Factors H+, Q₃+, F-, G+, and A+ have high and stable βs. Thus, the model selected by Mallow's C(p) procedure is chosen.

As already stated, venturesome, bold (H+), warmhearted (A+) and persistent (Q₃+) characteristics go well

TABLE 17
BEST PREDICTION MODEL WITH THE SHEPHERD/EVANGELIST
CLUSTER AS DEPENDENT VARIABLE
FOR THE FILIPINO SAMPLE

| Factors | Full Model | Stepwise | Forward | Backward | Mallow's C(p) | R-squared |
|----------------|------------|----------|----------|----------|---------------|-----------|
| A | .082 | | | | .092 | |
| B | .013 | | | | | |
| C | .024 | | | | | |
| E | .034 | | | | | |
| F | -.142* | -.132(3) | -.132(3) | -.132 | -.138 | -.132 |
| G | .096 | .117(4) | .117(4) | .117 | .113 | .117 |
| H | .255* | .298(1) | .298(1) | .298 | .276 | .298 |
| I | -.009 | | | | | |
| L | -.027 | | | | | |
| M | -.053 | | | | | |
| N | .005 | | | | | |
| O | -.010 | | | | | |
| Q ₁ | -.035 | | | | | |
| Q ₂ | -.070 | | | | | |
| Q ₃ | .131* | .129(2) | .129(2) | .129 | .143 | .129 |
| Q ₄ | -.015 | | | | | |
| R ² | .144 | .125 | .125 | .125 | .133 | .125 |
| C _p | | | | | -0.205 | |
| F value | 4.01 | 14.11 | 14.11 | 14.11 | 12.05 | 14.11 |

Numbers in () indicate the order of step.

with the shepherd/evangelist functions. An F- person's traits (sober, prudent, and serious) and a G+ person's qualities (conscientious, moralistic, and rule-bound) are also predictable characteristics of shepherd/ evangelists. However, the regression model has only five of the six hypothesized personality factors. Q₁- (conservatism) is missing. A possible explanation could be that the Filipinos are normally conservative, but those who scored low on Q₁ (extremely conservative) did not score high on the shepherd/evangelist cluster. Conservatism in pastoral ministry may be valuable for the North American, but not so with the Filipinos who belong to conservative Oriental culture.

Supporter Cluster

Table 18 shows the best prediction model with the supporter cluster as the dependent variable for the Filipino sample. The full model can account for 11.2% of the variance; and the two-predictor variables identified by stepwise, forward, backward, Mallow's C(p), and R-squared account for 9.6% of the variance. An examination of the various models suggests a two predictor model is viable. Factors Q₃+ and H+ have high and stable β s. Thus, the model selected by stepwise, forward, backward, Mallow's C(p), and R-squared procedures is chosen even though this model accounts for slightly less than 10% of the variance.

According to the Handbook for the 16 PF, high H and

TABLE 18

BEST PREDICTION MODEL WITH THE SUPPORTER
CLUSTER AS DEPENDENT VARIABLE
FOR THE FILIPINO SAMPLE

| Factors | Full Model | Stepwise | Forward | Backward | Mallow's C(p) | R-squared |
|----------------|------------|----------|---------|----------|---------------|-----------|
| A | .036 | | | | | |
| B | -.067 | | | | | |
| C | .048 | | | | | |
| E | -.026 | | | | | |
| F | -.037 | | | | | |
| G | .062 | | | | | |
| H | .175* | .165(2) | .165(2) | .165 | .165 | .165 |
| I | -.010 | | | | | |
| L | -.021 | | | | | |
| M | -.021 | | | | | |
| N | -.065 | | | | | |
| O | -.024 | | | | | |
| Q ₁ | -.018 | | | | | |
| Q ₂ | .039 | | | | | |
| Q ₃ | .219* | .240(1) | .240(1) | .240 | .240 | .240 |
| Q ₄ | .025 | | | | | |
| R ² | .112 | .096 | .096 | .096 | .096 | .096 |
| C _p | | | | | -3.816 | |
| F value | 3.02 | 20.90 | 20.90 | 20.90 | 20.90 | 20.90 |

Numbers in () indicate the order of step.

Q₃ are associated with success in organized activities (Cattell et al., 1970, pp. 92, 107), which is related to the supporting function in the church. This working model includes factors of the hypothesized model for the supporter cluster. However, the regression model has only two of the six hypothesized personality factors. A possible explanation may be cultural, and the status of the sample. The hypothesized model may hold true for mature Christians in the Philippines.

Counselor Cluster

Table 19 shows the best prediction model with the counselor cluster as the dependent variable for the Filipino sample. The full model can account for 8.5% of the variance; 6.1% is accounted for by the "best" model (three variables) produced by Mallow's C(p) method; and 5.6% by the two predictor variables identified by stepwise, forward, backward, and R-squared procedures.

However, this was not a practical model to use

TABLE 19
BEST PREDICTION MODEL WITH THE COUNSELOR
CLUSTER AS DEPENDENT VARIABLE
FOR THE FILIPINO SAMPLE

| Factors | Full Model | Stepwise | Forward | Backward | Mallow's C(p) | R-squared |
|----------------|------------|----------|---------|----------|---------------|-----------|
| A | .078 | | | | | |
| B | .022 | | | | | |
| C | .083 | | | | .074 | |
| E | -.026 | | | | | |
| F | -.051 | | | | | |
| G | -.005 | | | | | |
| H | .137* | .160(1) | .160(1) | .160 | .150 | .160 |
| I | -.057 | | | | | |
| L | .012 | | | | | |
| M | .050 | | | | | |
| N | -.053 | | | | | |
| O | -.052 | | | | | |
| Q ₁ | .027 | | | | | |
| Q ₂ | -.007 | | | | | |
| Q ₃ | .159* | .154(2) | .154(2) | .154 | .138 | .154 |
| Q ₄ | .106 | | | | | |
| R ² | .085 | .056 | .056 | .056 | .061 | .056 |
| C _p | | | | | 0.854 | |
| F value | 2.21 | 11.75 | 11.75 | 11.75 | 8.58 | 11.75 |

Numbers in () indicate the order of step.

because the proportion of variance predicted was too small. Therefore, no detailed results are reported.

It is something of a mystery that no model could be found for a counselor. It would seem that counseling/encouraging/mentoring would be a clearly identifiable element in every culture. It is a normal part of parenting, leading, shepherding, and teaching. Thus, any hypothesis to explain this finding seems inadequate. But one comment is ventured: all the subjects were young people in college, and their reverence for those older than themselves, the ones who are the counselors in their lives, may have been a factor in this unusual finding.

Leader Cluster

Table 20 indicates the best prediction model for the leader cluster as the dependent variable for the Filipino sample. The full model can account for 15.1% of the variance; 13.0% is accounted for by the "best" model (three variables) produced by Mallow's C(p) method; and 12.3% by the two-predictor variables identified by stepwise, forward, backward, and R-squared procedures. An examination of the various models suggests a three-predictor model is viable. Factors Q₃+, H+, and O- have high and stable β s. Thus, the model selected by Mallow's C(p) procedure is chosen. This model includes some factors common with the hypothesized model for the leader cluster.

Someone high on the leader and shepherd/evangelist

TABLE 20
 BEST PREDICTION MODEL WITH THE LEADER
 CLUSTER AS DEPENDENT VARIABLE
 FOR THE FILIPINO SAMPLE

| Factors | Full Model | Stepwise | Forward | Backward | Mallow's C(p) | R-squared |
|----------------|------------|----------|---------|----------|---------------|-----------|
| A | -.014 | | | | | |
| B | .035 | | | | | |
| C | .023 | | | | | |
| E | -.057 | | | | | |
| F | .026 | | | | | |
| G | .084 | | | | | |
| H | .209* | .214(2) | .214(2) | .214 | .194 | .214 |
| I | -.042 | | | | | |
| L | -.050 | | | | | |
| M | .029 | | | | | |
| N | -.039 | | | | | |
| O | -.039 | | | | -.088 | |
| Q ₁ | .021 | | | | | |
| Q ₂ | .055 | | | | | |
| Q ₃ | .194* | .250(1) | .250(1) | .250 | .232 | .250 |
| Q ₄ | -.044 | | | | | |
| R ² | .151 | .123 | .123 | .123 | .130 | .123 |
| C _p | | | | | 0.697 | |
| F value | 4.26 | 27.75 | 27.75 | 27.75 | 19.65 | 27.75 |

Numbers in () indicate the order of step.

clusters is high on H and Q₃ factors. High H people are adventurous and active, and show little inhibition from environmental threats. They usually show boldness in social, emotional, and physical danger situations. Boldness and activeness, typical of a higher H score, are well suited to leadership. It is consistent with Cattell and Stice's (1954) findings that high H individuals are frequently chosen as leaders.

The leader cluster is predicted by the Q₃+ factor

also. The Handbook for the 16 PF (Cattell et al., 1970) states that the Q₃+ person exercises strong self-control, persistence, consideration of others, and is respectful of social expectations. According to Cattell and Stice (1954), someone high on a Q₃ score could well be chosen as a leader, but even more so those who are routinely effective rather than merely popular. They also have clear goals and plans for their lives, and others tend to have confidence in them.

A person with Q₃+ brings his/her emotions and general behavior under control and Christian leaders' self-control "is essential for the development of a consistent, predictable character approved by society and God" (Chalmers & Chalmers, 1979, p. 57). The O- traits such as inner peace, confidence, and self-assuredness would bring healthy balance to H+ and Q₃+

However, the regression model has only three of the five hypothesized personality factors. Again, it is possible that culture and the student sample may account for the divergence.

In testing Hypothesis 2, four of the five spiritual gifts clusters were significantly correlated with personality factors indicated by the 16 PF. However, the working predictive models for each cluster includes only some of the factors that were predicted in hypothesized models.

Summary of Testing Hypothesis 2

Tables 21 summarizes the best prediction personality

TABLE 21
BEST PREDICTION PERSONALITY FACTORS FOR THE SPIRITUAL
GIFTS CLUSTERS AMONG THE FILIPINO SAMPLE

| Gifts Clusters | Predicting Personality Factors |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Teacher | H+ (Sociability) Q ₃ + (self-control) F- (Seriousness) A+ (Warmhearted) |
| Shepherd/ Evangelist | H+ (Bold, Venturesome) F- (Sober, Seriousness) Q ₃ + (Self-control) G+ (Conscientious, Moralistic) A+ (Warmhearted) |
| Supporter | Q ₃ + (Self-control) H+ (Can take stress) |
| Leader | Q ₃ + (Self-control) H+ (Bold, Sociability) O- (Inner Peace, Confidence) |

factor models for the spiritual gifts clusters among the Filipino sample.

Summary of Testing Hypotheses

Table 22 shows the comparison of the personality factors that best predict the spiritual gifts clusters for the seminarians and the Filipinos.

In obtaining the best prediction models for the spiritual gifts clusters, factor H+ is common to all of the spiritual gifts clusters for the seminarian sample, and H+ and Q3+ are common to all of the spiritual gifts clusters for the Filipino sample--except in the case of the counselor cluster where there is no practical model for the Filipino sample.

These findings indicate that all of the spiritual gifts that are categorized under the five clusters tend to be

TABLE 22
COMPARISON OF PERSONALITY FACTORS
THAT BEST PREDICT SPIRITUAL
GIFTS CLUSTERS

| Clusters | Seminarians | Filipinos |
|-----------|--------------------------|---------------------|
| Teacher | H+, M+, N+ | H+, Q3+, F-, A+ |
| Shepherd | H+, B-, Q3+, Q1-, G+ | H+, F-, Q3+, G+, A+ |
| Supporter | Q4-, G+, H+, B-, O+, Q3+ | Q3+, H+ |
| Counselor | Q4-, E+, H+ | |
| Leader | H+, E+, G+, O-, Q3+ | Q3+, H+, O- |

related to bold, venturesome, active, responsive, friendly, and people-loving orientations, which are the main characteristics of a high H factor.

Factor Q₃+ is especially common among the Filipino sample, which implies such characteristics as self-control, persistence, consideration of others, and respect of social expectations.

Other than the commonality of H+ and Q₃+ factors for both of the samples, the results are quite different in the two samples under study. For the seminarian sample, factors M+ and N+ are peculiar to the teacher cluster, which suggests that teaching gifts for seminarians tend to be characterized as imaginative and efficient, whereas the factors F- and A+ in the Filipino' teaching gifts suggests a more warm and reflective notion. One reason for this observation may be that the seminarians are predominantly Western (more than 70% are North Americans) where efficiency is emphasized in teaching, whereas the Filipinos--Orientals--place a high value on the relationship between teacher and pupil.

Factors B- and Q₁- are observed for the seminarian's shepherd/evangelist cluster. Conservatism (Q₁-) is anticipated for the shepherd/evangelist cluster, but B- (concrete rather than abstract thinking) is somewhat unusual. The Filipino model for shepherd/evangelist cluster includes A+ and F-, which may suggest that warmth and seriousness are more predictable for the shepherd/evangelist ministries in the Oriental culture.

The prediction model for the supporter cluster among the seminarians is identical with the hypothesized model, whereas the Filipinos' have only two predictors. A possible reason may be the cultural difference. However, it may be applicable with mature church members in the Philippines. Any other attempt to explain the reason at this point seems inadequate.

For the counselor cluster, the seminarian model is quite different with the hypothesized model, and the Filipino model is not practical. A possible reason for the seminarian result may be that a Christian counselor is only tangential related to a professional employment counselor. For the Filipino sample, where Oriental students' reverence to those older than themselves may have been a factor in this unusual finding.

Factors H+, Q₃+ and O- are common with the leader cluster among two samples, indicating boldness, self-control, and confidence--factors typical in church leadership and leadership in society at large.

Finally, the fact that the best prediction models of the spiritual gifts clusters are basically different for the two samples suggests that predicting one's potential giftedness through exploring personality profiles must be normed for each cultural group where there are significant differences in the way ministry is implemented. For the seminarian sample, though it is true that the sample is a multi-racial group, in a broad sense they belong to one basic

culture (which does not deny the presence of important racial subcultures), in that more than 70% of them are North American. Further discriminating demographic information was not available.

Chapter Summary

This chapter has described the subjects used in the study and reported the testing of the hypotheses. The two hypotheses formulated for this study were tested by means of various procedures of multiple regression analyses, and regression models were considered that predicted more than 10% of the variance.

For the seminarian sample the regression models for spiritual gifts clusters were identical with hypothesized models in two cases, similar in two cases, and different in one case. For the Filipino sample, all are different except one similar case. Possible reasons for these observations were discussed for each model.

Table 22 summarizes a comparison of personality factors that best predicts spiritual gifts clusters between the two samples.

In answering the research question of suggesting personality factors that are related with spiritual gifts clusters based on possible correlation, it would appear that following factors would be useful. They are listed in descending order of weight for each regression model.

For the North American sample:

Teacher--H+ (.314), M+ (.196), N+ (.112);

Shepherd/Evangelist--H+ (.222), B- (.150), Q₁-
(.140), Q₃+ (.118), G+ (.086);

Supporter--Q₄- (.224), H+ (.157), O+ (.137), G+
(.136), Q₃+ (.111), B- (.103);

Counselor--Q₄- (.191), E+ (.180), H+ (.175); and

Leader--H+ (.217), E+ (.192), G+ (.166), O- (.164),
Q₃+ (.135).

For the Filipino sample:

Teacher--H+ (.276), Q₃+ (.119), F- (.118), A+ (.099);

Shepherd/evangelist--H+ (.276), Q₃+ (.143), F-
(.138), G+ (.113), A+ (.092);

Supporter-- Q₃+ (.240), H+ (.165); and

Leader--Q₃+ (.250), H+ (.214), O- (.088).

CHAPTER V

SUMMARIES, CONCLUSIONS, AND RECOMMENDATIONS

This chapter presents summaries of chapters 1 through 4, with conclusions, implications, and recommendations drawn from the findings. This study was concerned with the possible correlation between 16 personality factors and five spiritual gifts clusters.

Summaries

The purpose of the study, the review of related literature and research, the methodology, and the findings are briefly summarized below.

The Purpose

Research had been undertaken to investigate the possible correlation between temperaments and spiritual gifts (Joachim, 1984) and psychological types and spiritual gifts (Phoon, 1986). These studies found that there are significant correlations between temperaments and spiritual gifts and between psychological types and spiritual gifts. However, far fewer correlations than anticipated were identified, and it was hypothesized that the instruments utilized in these studies may not have been adequate for the research questions.

A preliminary study (Naden et al., 1992) examined the possible correlation between the personality factors of the 16 PF and spiritual gifts clusters of the NSGI and hypothesized five predictive models. The strength of the correlations suggested that a full-scale study was warranted. The purpose of this present study was to explore hypothetical predictive models regarding the correlation that exists between the personality factors and five spiritual gifts clusters on the basis of two empirically developed instruments, the Sixteen Personality Factor Questionnaire and the New Spiritual Gifts Inventory, in two contrasting cultures.

Review of Related Literature and Research

The review of literature was divided into two sections. The first dealt with spiritual gifts; and the second, with personality factors.

Among the several Greek words that are translated "gift" in the New Testament, charisma and pneumatikos are prominent. Charisma, which means "gift of grace," uniquely expresses Paul's theology of spiritual gifts, and pneumatikos, which means "gift," and often translated as "spiritual" gift, connotes the idea of sovereign distribution. Other words such as diakonia, energema, phanerosis, and domata, along with charisma and pneumatikos, reflect the experience Paul had with spiritual gifts in his own life.

Among them, the three words that are used in

1 Cor 12:4-6 (charisma, diakonai, and energemata) express the nature and purpose of spiritual gifts--the term charismata denotes the source of the gifts as divine charis; the term diakonai means "eager readiness to serve," which implies a purpose to serve others, not the recipient; and the term energemata means functional "outworkings," to produce results. In his use of these three terms, Paul implies the origin of the gifts, the way in which they are experienced in the church, and the results of ministry using spiritual gifts.

Two positions regarding the difference between spiritual gifts and natural talents are noteworthy: one is that spiritual gifts are not related with talents, and the other is that they are virtually the same. Those who distinguish the two believe that spiritual gifts are supernatural, whereas talents are innate in every human at birth. Those who view the conversion experience as the act of giving one's natural talents to God and receiving them back as spiritual gifts are comfortable with the idea of spiritual gifts and personality being intimately correlated.

No consensus has been reached concerning a classification of spiritual gifts, but an attempt has been made to establish the main areas of giftedness with the goal of enabling individuals to identify and experiment with a wide range of ministries in the contemporary setting. Several researchers have developed gift inventories to help Christians identify individual giftedness, but only one

researcher has published validity and reliability data.

It was Cattell who viewed personality as the predictor of behavior and developed questionnaires to study individual personalities by factor analysis. To reveal the underlying structure of personality, Cattell identified source traits and labeled them as factors A-Q₄. These 16 basic traits are explored in the Sixteen Personality Factor Questionnaire.

The 16 PF has been used widely in research regarding the correlation between personality patterns and different vocations, with the result that different occupational groups are now characterized by specific personality profiles. Religious professions (e.g., priests) have been included in the identification of personality profiles. Some studies with the 16 PF have revealed that personalities are significantly correlated with different approaches to ministry by clergy.

Methodology

A correlational research design was used to determine the relationship between 16 personality factors and five spiritual gifts clusters. The instruments used were:

1. The Sixteen Personality Factor Questionnaire (16 PF) by Cattell, Saunders, and Stice, which has 187 questions --each offers a trinomial choice
2. The New Spiritual Gifts Inventory (NSGI) by Naden, which has 20 questions--each offers a choice on a Likert-style 5-point continuum between false and true.

These two instruments were used because validity and

reliability data have been published that indicate their appropriateness for empirical research.

Eight hundred and forty subjects were included in this study which was comprised of students and their spouses of the Seventh-day Adventist Theological Seminary, Berrien Springs, Michigan, and undergraduate students of Philippine Union College, Silang, Philippines. Four hundred and thirty-seven sets of instruments were collected over 4 years for the seminarian sample, and 410 sets were administered to students of Philippine Union College. Four hundred and three sets were returned, and of these, 399 (97%) were usable.

Two null hypotheses were formulated to be tested statistically. The two hypotheses were tested with six statistical procedures of multiple regression analyses. For each of the hypotheses, only those with a significance level of $p < .05$ and multiple R-squared of $> .1000$ were considered.

Findings of the Study

For Hypotheses 1 and 2, Table 22 (p. 108) presents an overview of the results.

Hypothesis 1

Among the seminarian respondents, there is no significant multiple correlation between each of the spiritual gifts clusters and personality factors indicated by the 16 PF.

For the seminarian sample, someone high in factors H (friendly, responsive), M (imaginative), and N (shrewd,

efficient) was found to have the teacher cluster. Someone high in factors H (bold, venturesome, uninhibited), Q₃ (self-control), and G (conscientious), and low in factors B (concrete-thinking) and Q₁ (conservative) was found to have the shepherd/evangelist cluster. Someone high in factors G (persistent, disciplined, ordered), H (active, carefree), O (apprehensive), and Q₃ (self-control), and low in factors B (concrete-thinking) and Q₄ (relaxed, composed, unfrustrated) was found to have the supporter cluster. Someone high in factors H (can take stress) and E (ascendance), and low in factor Q₄ (relaxed, composed, unfrustrated) was found to have the counselor cluster. Someone high in factors H (toughness, sociability), G (conscientious), E (dominant), and Q₃ (socially precise), and low in factor O (inner peace) was found to have the leader cluster.

Table 15 (p. 97) summarizes the results for this hypothesis.

Hypothesis 2

Among the Filipino respondents, there is no significant multiple correlation between each of the spiritual gifts clusters and personality factors indicated by the 16 PF.

Someone high in factors H (bold, venturesome, active), Q₃ (exacting will power), and A (warm), and low in factor F (sober, serious) was found to have the teacher cluster. Someone high in factors H (bold, venturesome, active), Q₃ (exacting will power), G (conforming, staid), and

A (warm), and low in factor F (sober) was found to have the shepherd/evangelist cluster. Someone high in factors Q₃ (controlled) and H (active, carefree) was found to have the supporter cluster. Someone high in factors H (bold, sociability) and Q₃ (socially precise), and low in factor O (inner peace) was found to have the leader cluster.

The regression model for the counselor cluster was not practical, because the proportion of variance explained was too small.

Table 21 (p. 107) summarizes the results for this hypothesis.

Conclusions

Observations and discussions on the four hypotheses led to the following conclusions:

It was found that the regression models included personality factors hypothesized for each of the spiritual gifts clusters that were investigated.

For the seminarian sample the regression models for spiritual gifts clusters were identical with hypothesized models in two cases, similar in two cases, and different in one case. For the Filipino sample, all are different except one similar case.

In obtaining the best prediction models for the spiritual gifts clusters, factor H+ is common to all of the spiritual gifts clusters for the seminarian sample, and H+ and Q₃+ are common to all of the spiritual gifts clusters for

the Filipino sample--except in the case of the counselor cluster where there is no practical model for the Filipino sample.

These findings indicate that all of the spiritual gifts that are categorized under the five clusters tend to be related to bold, venturesome, active, responsive, friendly, and people-loving orientations, which are the main characteristics of a high H factor.

Factor Q₃+ is especially common among the Filipino sample, which implies such characteristics as self-control, persistence, consideration of others, and respect of social expectations.

Other than the commonality of H+ and Q₃+ factors for both of the samples, the results are quite different in the two samples under study. For the seminarian sample, factors M+ and N+ are peculiar to the teacher cluster, which suggests that teaching gifts for seminarians tend to be characterized as imaginative and efficient, whereas the factors F- and A+ in the Filipino' teaching gifts suggests a more warm and reflective notion. One reason for this observation may be that the seminarians are predominantly Western (more than 70% are North Americans) where efficiency is emphasized in teaching, whereas the Filipinos--Orientals--place a high value on the relationship between teacher and pupil.

Factors B- and Q₁- are observed for the seminarian's shepherd/evangelist cluster. Conservatism (Q₁-) is anticipated for the shepherd/evangelist cluster, but B-

(concrete rather than abstract thinking) is somewhat unusual. The Filipino model for shepherd/evangelist cluster includes A+ and F-, which may suggest that warmth and seriousness are more predictable for the shepherd/evangelist ministries in the Oriental culture.

The prediction model for the supporter cluster among the seminarians is identical with the hypothesized model, whereas the Filipinos' have only two predictors. A possible reason may be the cultural difference. However, it may be applicable with mature church members in the Philippines. Any other attempt to explain the reason at this point seems inadequate.

For the counselor cluster, the seminarian model is quite different with the hypothesized model, and the Filipino model is not practical. A possible reason for the seminarian result may be that a Christian counselor is only tangential related to a professional employment counselor. For the Filipino sample, where Oriental students' reverence to those older than themselves may have been a factor in this unusual finding.

Factors H+, Q₃+ and O- are common with the leader cluster among two samples, indicating boldness, self-control, and confidence--factors typical in church leadership and leadership in society at large.

In answering the research question of suggesting personality factors that are related with spiritual gifts clusters based on possible correlation, it would appear that

following factors would be useful. They are listed in descending order of weight for each regression model.

For the North American sample:

Teacher--H+ (.314), M+ (.196), N+ (.112);

Shepherd/Evangelist--H+ (.222), B- (.150), Q₁- (.140), Q₃+ (.118), G+ (.086);

Supporter--Q₄- (.224), H+ (.157), O+ (.137), G+ (.136), Q₃+ (.111), B- (.103);

Counselor--Q₄- (.191), E+ (.180), H+ (.175); and

Leader--H+ (.217), E+ (.192), G+ (.166), O- (.164), Q₃+ (.135).

For the Filipino sample:

Teacher--H+ (.276), Q₃+ (.119), F- (.118), A+ (.099);

Shepherd/evangelist--H+ (.276), Q₃+ (.143), F- (.138), G+ (.113), A+ (.092);

Supporter-- Q₃+ (.240), H+ (.165); and

Leader--Q₃+ (.250), H+ (.214), O- (.088).

Implications

1. Either the Sixteen Personality Factor Questionnaire (Cattell et al., 1949) and/or the New Spiritual Gifts Inventory (Naden, 1990b) can be used in the selection of prospective workers for different aspects of ministry in Christian organizations.

2. The Sixteen Personality Factor Questionnaire (16 PF), or another such instrument if/when it were available, may be used to identify one's personality profile and then

predict probable giftedness and fitness for certain ministries. This is especially true with women and minorities who may not have had the opportunity to attempt a wide range of church ministries.

3. Two possible explanations are offered for the correlation between personality factors and giftedness:

a. For Christians who believe that spiritual gifts are bestowed without regard for their genetic personalities, it is suggested that the believer's personality will be made to harmonize with the gifting process in order for the ministry to be spontaneous and effective.

b. For Christians who believe that spiritual gifts and natural talents are not essentially different, the explanation is that at the time of conversion, the natural aptitudes and environmentally influenced personality are returned to the New Born as spiritual gifts ready for ministry.

4. Almost all of the spiritual gifts clusters for both seminarians and the Filipinos include factors H+ and Q₃+. This implies that most of the spiritual gifts categorized under the five clusters are utilized by active, responsible, friendly, and people-loving members, who also exercise self-control, persistence, consideration of others, and are respectful of social expectation.

5. The fact that the best prediction models of the

spiritual gifts clusters are unique for the two samples implies that predicting one's potential giftedness through exploring personality profiles must be normed for contrasting culture groups where there are significant differences in the way ministry is implemented; that is, one cannot generalize findings cross-culturally. For the seminarian sample, though it is true that the sample is a multi-racial group, in a broad sense they belong to one basic culture (which does not deny the presence of important racial subcultures), in that more than 70% of them are North American. Further discriminating demographic information was not available.

Recommendations

1. Conduct classes/seminars within churches to aid members in the understanding of ministry through spiritual gifts with a view to increasing the number of members involved in regular ministry.
2. Establish vocational guidance in churches and schools to help young adults in the selection of professions/vocations in line with their personality profiles and giftedness.
3. Utilize personality/giftedness information in recruitment for church employment.

For Further Study

1. Replicate the study in churches with its inbuilt spectrum of age groups.
2. Replicate the study with culturally homogeneous

groups.

3. Replicate the study with five groups that are relatively vocationally homogeneous.

4. Replicate the study investigating gender bias.

5. Compare spiritual gifts clusters, vocations, and personality profiles to investigate possible correlations.

6. Consider the practicality of developing a simple, self-scoring personality instrument that could be used in local congregations where cost and availability would make the use of the 16 PF impractical.

7. Consider ways to utilize this theory in the work of nominating committees in churches.

APPENDICES

APPENDIX A
CORRESPONDENCE

May 5, 1992

Dr. Miriam S. Tumangday
Vice President
Philippine Union College

Dear Dr. Tumangday:

One of my doctoral candidates, Soo Dong Choi, is presently conducting research on the possible relationship between 16 Personality Factor Questionnaire and spiritual giftedness.

This is an area in which no full-scale research has been conducted of which we are aware. This study will probably be of interest to every Christian student.

Mr. Choi needs 500 subjects for his study considering the number of factors in the 16 PF and spiritual gifts instruments he will be using.

Thus, if you could be of any help to Mr. Choi in arranging for him to use some of the students of your institution for this study, he and we would be extremely grateful.

With every good wish.

Very cordially yours,

Roy C. Naden, Ed.D.
Professor of Religious Education



PHILIPPINE UNION COLLEGE

*School of Graduate Studies**"Quality & Mission"*

OFFICE OF THE DEAN

August 24, 1992

Dr. Soo Dong Choi
Andrews University
Fax (616) 471-9751

Dear Dr. Soo:

The President's Council of Philippine Union College has approved your request to administer tests related to your doctoral requirements to 500 college students. I shall be on an accreditation assignment off campus on September 22-25, but will have someone assist you during your stay. Please let me know how else we can help you.

Sincerely yours,

Miriam S. Tumangday
Vice-President for Academic Affairs
Dean, School of Graduate Studies

/lr

Preparing Leaders for the Third World and Beyond

P. O. BOX 1834, MANILA TELEGRAPH & CABLE ADDRESS: PHILCOL, MANILA, PHILIPPINES

APPENDIX B
DATA ON THE 836 SUBJECTS

SEMINARIAN DATA

Cols. 1-3 ID Number
 Cols. 4-13 NSGI Scores
 TEACHER=4-5 SHEPHERD=6-7 SUPPORTER=8-9
 COUNSELOR=10-11 LEADER=12-13
 Cols. 14-29 16PF Sten Scores (0=10)
 Col. 30 Gender (1=M 2=F)

1989/1990 -> 001 - 212
 1991/1992 -> 213 - 358
 1992/1993 -> 359 - 437

001181410151546374534868869261
 002201716141744626766634626841
 003181315171638563485756319551
 004151514141148465247083854361
 005161315121668723887584255941
 006202015152035847765555515781
 007191817161766625647448462871
 008202020201945377567650047951
 009191918161855853855588446741
 010191918192085776896856303641
 011171818151855654777961653841
 012201918161756554566544656651
 013141012131777956543377424631
 014130912151449333530357637691
 015171315151458669766844448571
 016181313151347155748751057301
 017141015111629641433767558441
 018161617141667717775528653721
 019161614151459755875487234751
 020170813151467750665854776651
 021161415131628434820578676571
 022181313171839761756559360771
 023141512111455354676846044791
 024201719171956679795264566681
 025161414151377655567547425641
 026161210151558777476255369551
 027201920192046446075958464961
 028201719171896526950550413961
 029171115131677451646950789641
 030151519162055507772962795591
 031171617151679646557567046791
 032191814161444676444838553641
 033181518151269463889286458052
 034201716141878655757678575751
 035111316151150923418139557822
 036191116131358656770473649641
 037201818161896356580675583781

038192020141773628978467637941
039201818162055753776268524671
040191818201868644660366558721
041040712071236724527654756452
042171014121266546160166547381
043181616201986587995616453661
044140916111476335667664866691
045171717171657644330649736671
046161916181845557446526346431
047161616131795257570734764681
048201615172077668706684564771
049171918171875645573557548661
050171816131657536667576745461
051101417180926524737657727562
052161114151078644565489649541
053201920192075666986665666951
054161919172047766675555554642
055171419171886647795756616971
056081115151596548458839748401
057151108111217621427639740491
058202020202075845470067475741
059131616161567334347858838571
060201815171765766697974464551
061161716101154277666756866471
062171314141568626976376726551
063171013151575385778888745671
064171519181659166339865977191
065160915141537544360584470551
066151213161930776774696469671
067161413121674346749659855781
068201617171865575678594532751
069201720201777854546688666451
070181417151597850365586565851
071201620201876765560758644541
072161316151569624840650744671
073171512151496276458936944191
074171616131696456570758646861
075191516131786379834056677281
076121117191946878572765455642
077191715191968755646589368761
078181216131606665866456488841
079201419191967404786074665561
080201209151555344758475666651
081191719151986335767256653671
082141516131686814666550543071
083181217171779766977486623971
084181414131810756583458579751
085191618171966664590695357471
086151416181456656875467435652
087152020201666735478926457931
088161717151754283876964597371
089201314181457898495466487421
090090608161447524620338467852
091202019171997799490848561441

092181920171895577697575444751
093201211151560637768366665771
094201420191969878888757436932
095171415151769753830766579751
096161818171397466666364554642
097151017111679286850705889391
098191516202067688685886294662
099171515151606645764785736361
100201613181963676877828746571
101191513171667453850736947901
102151315121635361175345457652
103131216141546455147833770472
104171711181655345558679477451
105201620201955843640738627441
106071413161787361636769750882
107151315151295926530574536291
108191516161739553878666438681
109201816151467336577563849581
110181717171856369497966776461
111151514151479441475666446681
112151814121735334544558838401
113131717170939345457766854472
114141513151438355778756246961
115161616161636451634757878832
116151817161859667676568267771
117181615141686780695546513691
118191008141659384670766565571
119161615161837457475365369571
120201315151625932538557559642
121150912151177287435665887251
122141616171849663835882678672
123151010111727457845036817401
124171014121546295560874859261
125091213111699456037616856572
126131214131528331836560940791
127151011131545181058935789562
128161915161757745427387366661
129121514111545526646554547641
130151215131445342448622875481
131161115151677567685785534541
132191918161555526378566953551
133161613161249165716476658602
134171613151576770207792356361
135191818161778689808672466751
136191612151877576897563444651
137181612171779867788598465441
138201919171788874578784863661
139141517151446484794753636862
140161717151768354647447567962
141151710151875368560866670691
142111115120857753348664567612
143171217161350288350963878291
144131117111655863677543356832
145151314161465566470977873491

146161716161786457797566344961
147121716171656847567457328831
148161315121486573637556649681
149171917171875675668439444861
150171815131488388676942622671
151181915161647875588475366551
152151009151340487430628466571
153191412131425544432838569581
154171917151778577347652814271
155151716111755365878460547561
156161411131269521547260457872
157141114131658442513858879361
158161714161530656296384528451
159171615151757659378484463561
160161014171618822726558840941
161131713141673342635476538961
162201415152096684647874743461
163151717121215331636940850652
164141214141497658575838853482
165161209111548534028676677501
166151416151535645875737878752
167161615151457657730456666891
168171117181688788207763573172
169101013121137723736518636862
170151414161156658496558644451
171161611131398667477742566241
172181718141558664985434776862
173181616161539576777464467641
174151518161446433646557545531
175191611141428856556335569581
176162017171649287476961779391
177201916161549756688567646661
178131613151565745877695358642
179151516151689869698759477771
180191210161926890793763474731
181111211161246434546936667581
182191718151470554056836447661
183171610161649845766744478631
184191717141787452658458614571
185191212161340684557783668672
186201316171787469798757376742
187151312121699355677564645671
188151214161478445560576396751
189181111161660754589596567551
190171819171375432946846953581
191201510141770586758749549791
192121014091388754358635432562
193171615171784374776386673541
194161212171750485660882764652
195111917131678466868848647581
196140815161606480509374474661
197201919141575348540732546481
198141416141558656670767467551
199201816202098576888555541831

200121212151865858574644658641
201081511151840284529026638701
20211121811195775554738782772
203111314111475674747466846891
204130915121366487965732775062
205171317141386745837454459032
206171313151560645428588770351
207201617181698687688984356651
208191618161717655957549658951
209141414151568486566455666471
210191618191878665907666468852
211131619171965667493516527551
212070614101295577555737856472
213151920141365654755730777752
214181512151875576553868855471
215201614161665878289332542541
216131320201536766776453288932
217141411111655487977916776791
218181713131765642647368424551
219171516161999785675867337972
220191819171463446677578546751
221171813171675535877438562561
222181513131774666677667448551
223191314192159607697883374432
224191917141758835857286177831
225181819191905296879586867861
226161313141359542337376638681
227201917161993725650559552581
228041820161865864776775399562
229191613131758776679767266341
230131010151157476546776677591
231192017141874547076776413731
232191617191907365556272547591
233171616141357535657749444641
234191515131348242639767967581
235141519171236564734764908261
236110713100968475428964997282
237171514151377642450467567552
238140812111079378137565878181
239191109071246552627528678691
240121217141190655647454634562
241171616141767766456695647461
242181614151778399676745444501
243181717161595737568930643741
244160511170868869178675468151
245142016141830846597375447441
246091718141515622934426637872
247181212171750404770066677591
248171213151439576658964768572
249191819162085656776249565851
250131314131468147858867054492
251191918161767441446868740781
252161914131551367847929675881
253151114161647847724933668832

254161819121796546746865827662
255141717111685565688567325651
256201714171596865468477267851
257141720151646534556855445642
258151714131378742630477746551
259141415161589069394665356362
260141612131375361656810837582
261191713141787767698394637651
262161518181067673647245567552
263161514141147533445666845571
264131211121445464764636777882
265201717171790658886725666561
266171719161908708608063298852
267161611161726486876966673591
268191819161972576687736466641
269161312151676637567383376631
270201517121476464638858737591
271181816151645651245735744181
272141115151276545359658466541
273161618171778568636875677371
274201818171690656758498346951
275151710141497880480782473491
276141214161617666644574446941
277120906101008168567344776492
278131412151505469673974686271
279141616141599766666635458862
280181820181777343569757544861
281181618152086386780558643671
282191715151977646768788561551
283181520171750586696637573272
284181515191667382960866997581
285181917171365356566836956471
286201612171679643758550424751
287121314141327524548578614751
288191409091648753667680347951
289041312141535221740634949492
290191212131557373428677546161
291121613130956443635728556572
292111417141455642628546747551
293141315111468545956654467551
294181917151857645666564345941
295171212171690480368761868201
296181719121255413546347765571
297131618181689543847681577461
298201513161878862460857646691
299162018181675464857556865661
300181819181850441635585670952
301161818161869567765645560572
302181816161970735670555434851
303171716161785778906456527941
304161816131635767362439666791
305201817171987746485389326931
306151519141420355726871760691
307100709121178715838555527641

308131517111144435744767853662
309191818141867837658669316951
310161820141545649978443933662
311141112151428612728459677881
312171513130980457390686864251
313181719131597319777665544441
314181514111266527766776436561
315081214161696460566747636662
316201920202060566678545863641
317181615151668433636750416551
318191313111285536765738635952
319201517141679412847588476771
320172015141745334678579466661
321091514141445454665675576662
322161715111476231748450818501
323141615141455634658579737341
324181616171457896376545634372
325172014151788756469585667551
326171313171560596357385556171
327181619162081577676837453461
328111214131545451427456857562
329161613131670235646638667781
330161218161668545568478746461
331151616161648442437158848681
332131716151769392755745278962
333181715161758586868720669891
334131414171160454946659697772
335171617162049314678782527571
336141017111429283644453076382
337201620162048574587366345931
338161313141340435567678456761
339121213141558643978445426752
340181617181429533563474447561
341181919181868393760756668881
342151518151599255578686546661
343181211141695487507455444581
344151512131557646476558465561
345171519161775356827527654571
346151315121455421614649857642
347181414172097688808864855751
348192018121988636555666646561
349182019141955267588454715661
350141612101008225556538953491
351161007140838269235958924391
352151817151957633555378425461
353191917191778531537460638941
354181317161359763638966874671
355181607151610643457305550772
356050706070489652337658612571
357121415131353523560379396642
358161517191744676228557775581
359191819191667766587797567831
360181715171978852837785466861
361121612121258413637638847471

362181213141425731114778568251
363192020202079568566652566841
364161717151776657678756716891
365181918171785288790844857281
366202020202060868596583365421
367191209132040772263578549541
368171514151598879380533415551
369201518191762555585557448761
370141416171520232554529656591
371191817141486545679575624541
372201414171528255440676569481
373181516171548333627966060591
374141716131745672756546654871
375151418161928256826875858501
376161412182055598575966567571
377201515172075756875954365551
378201715141555625577578415751
379171116161607483435541766461
380131114121640473755555858692
381171713161679709697064564591
382171216142084645672359249951
383161419111950587747787476731
384181111181758478660864843681
385141513161786664870565556952
386181111151950606697676446571
387161716161778652339740547761
388151620201845627747826668741
389151818151838856738264358651
390141416131447456637456726171
391141615131678535636787514671
392151116191856684666055887562
393161916161847636755774826581
394181817171848704552661560541
395201614141837548466884557601
396161714131457323616758726791
397181518161870797856556770661
398181714171537442647620649871
399121412161795877388643386562
400191817152068567867644243591
401131820171937368598674674832
402191818141579656670747535681
403201616141762255467365752251
404071413151156431916628958672
405201716131867765567574467631
406201613131508770387594659371
407171818151739318757738746381
408201819161878676973654434761
409202016161888747777648336961
410191919181987997677645557231
411171715151887285569986855461
412161717161748544769586547851
413161314141850645665478245551
414141514141559556465848056441
415191816161753666886636645531

416191517181767774866483478662
417201919191997588699891263731
418151314151690648489435476741
419201917161868866676543246821
420121916171574368585736666562
421191613151999678490568446641
422122020151878465898775436671
423201819171899443856049849461
424161616181765795866575458451
425171918171976556078578716551
426141513151460258387756735191
427171615131345614760586536831
428171413121556565448986477541
429191213181785756355287283531
430181719141465445857737867761
431131315131655333817560749601
432161818161680532438196778652
433161314141529751735848660871
434201917171946374536678657681
435161920141635744758645646881
436181213151629886507375477681
437181818191977516477740438671

FILIPINO DATA

Cols. 1-3 ID Number

Cols. 4-13 NSGI Scores

TEACHER=4-5 SHEPHERD=6-7 SUPPORTER=8-9
COUNSELOR=10-11 LEADER=12-13

Cols. 14-29 16PF Sten Scores (0=10)

A=14 B=15 C=16 E=17 F=18 G=19 H=20 I=21 L=22
M=23 N=24 O=25 Q₁=26 Q₂=27 Q₃=28 Q₄=29

Col. 30 Gender (1=M 2=F)

001080707071142773454457685541
002141517151733762756579535741
003171820191964353556579764561
004131614141646452557658856861
005131215131574445755720946561
006181616202055736857967622921
007161615161739762745748836661
008101414131557274566249883551
009141112101353633635658765541
010040411111054555656659646641
011181919161936413635250733641
012161719171743655466575866551
013141618141473455557419876551
014091114161651675657778766651
015161616161633464950470634551
016151414151433564666646756651
017192019121756653966460756741
018151718161674463667359884851
019121717151666463443720455651
020091618191653355856777667661
021181613171845331746457774561
022131620191362244888638963881
023161717201864575876358655941
024111314121255574546657377551
025181818161875762857756732641
026131714151464542756844964651
027171618191743454266956863661
028181715131967453965679663861
029121419151856375856766957861
030111415141155453640518854781
031172015131669584898176525951
032131614141663463567467664931
033192020202074773786347864741
034141815121462323815527753771
035131514151566564558638844661
036151615131562555450659685561
037132019161965583967438585551
038111811111536563867555567461

039151516141855435657434655351
040121817141764633537467547551
041121517151746542839459663651
042151719151464374067548677641
043151917131873553646730935661
044141616161944434776565663741
045192019181987576875879633651
046121517151674635747328545541
047191715131165575665666755641
048171217181769673320593566611
049171516161974875666745774551
050131714141354663668640855541
051171919171776264748248555481
052131618171743654365663454551
053182020201664364757659837661
054131716161644351620747615881
055172020191971543566778677551
056191819171835733536245357731
057151918161675567797353266931
058141617161734365865557935671
059080806151158177244654884571
060202020161475753666649662841
061151618151266643536888573561
062182016171734732757559644641
063171212131646453636768956551
064162020161875453568359864741
065161717171574664767457765551
066121513151266665765355846561
067101515161574441627510767551
068141114141635742826168650041
069192020202057545766456544861
070141714141666264655567757551
071121918101561765557785665771
072141616161676563558435844871
073161616171776463735736056641
074091214111154344547869937471
075080812111162363567756754561
076202020201854745667638773371
077111514151885474866476465761
078101416121548354846859785661
079101218161552662647547757831
080131013131444464546956867651
081202020202059246678564867571
082191916151773565757658643851
083161617161776345785256831661
084171718181954452660946789761
085081311111366374678578865561
086131513121253564658558744641
087151517171855975660373673661
088142020201995564668910747661
089201818202066865786457244941
090111519151654333754879675571
091141718192071667786766761861
092151617181762454567756662841

093171819181997586089654443841
094202020202083745587279573751
095161820201983463566676777651
096141417151371554356559804661
097141211111071543546778655561
098131515151851444555645974661
099141713131444363654747861641
100101110131472553466556762541
101161011121362535567657744361
102181818192072564608264461821
103141616141665874475452554451
104202020202095843659565855571
105181919161376976795855323071
106111615141746465455447677841
107182018141967567784258544931
108161817171443454666356753761
109142016161375363749859887661
110072020181958844780645663851
111181815161873733666559072651
112101214171531653646076837751
113131818191766673566874883751
114091314131754376344646767541
115192020202065455766977866641
116141815141562364565667642651
117181918171766642955435863831
118161914161578375876754586651
119161914161564331463449543661
120192017151565564766726764671
121191717181843464466485656551
122151619181645542736447872371
123151615161561561644425766551
124121718181953774765636763661
125121210131646651558260738651
126151615151575462653564577751
127091513151466433636656747241
128191817171987343677549587751
129111313141547363649797867671
130151118171744434166559974351
131111415161556547755923743631
132141615151768555755658684061
133101420151623754766393244021
134141018171565653914637257041
135161414161574654567453544931
136181918192068662668776534041
137202020202043483778655746551
138151716111451373547656946751
139121213141555454668668834971
140110506040668475566627686451
141111510181407542548588737271
142181818161975653877414556851
143100916151469523727486645581
144202016182062561756849545531
145081319171646574865350766641
146171615111466247766526752661

147111516121166452945556767861
148161918161949576684677453951
149131717141445452646669674651
150111919191846565753744746541
151151515152067657767866521851
152161816151875353565758755561
153111215131366453765556766341
154171820161468461837729744961
155161614161777295964646545341
156111314131655476754458884431
157111719171748666633831867441
158101617161554543644529936761
159192019181873463868456563851
160181617151374665467576765561
161141920091725752040418224021
162091716141773485546634736401
163130811111273353567757756561
164201620161674473677487654231
165121513141061764656978884571
166141715131741231560457646551
167172018191765533748449856861
168091011151081553637836965561
169121817131263421749638054651
170141715131565653754659654751
171121715121637571859659657851
172081916191481432657939562371
173111414141543353646820684671
174121513151896665845838997371
175131317161845454566668767561
176151819181855543877456654041
177141519141153463757868565651
178161614141462354664869662731
179162020191598885864566651461
180171717171653373455354662551
181182020181978753875378447771
182171714091494474558676765721
183101512121064483769448744531
184141817151964565676477682041
185151515161746566560557744751
186131318171373475854666663661
187131616121562554648750637661
188181920202066373087657646041
189121818131348333846649647841
190172016091866365676949913641
191091116101862692784349265711
192131717131447474955777836961
193161617161736555866960445631
194161816161655463854416644871
195151614131472885554966634371
196171717172064596685953586851
197121815141643646787618462461
198101820171566655788454664951
199121417141535231625778866571
200161815181547434546458745651

201161920202062544876457554751
202121213161665562854536467861
203121416181568373847566568691
204192019191966947889668264921
205181816181885564777466647671
206171818131695584776258568551
207172016162045472969535676662
208161617141755735589545856682
209131715121452774557746467532
210121417161457742434355866662
211151818181879675686336632642
212171717171948472766059994762
213131416111094441746676655562
214071313161536473942667664742
215141715161634464575648751962
216131818171844471553519666532
217202020201961655677785653772
218141917161442374565665757352
219141518151244563726526658462
220151305101045672674684653552
221141817131455581763677056842
222131315181840843926387620932
223111916161475773645587964642
224162020191936683647454657872
225151815151545455944528875862
226070606140754553736610664852
227171917191754254546758966782
228152019111765653665336693732
229151715141716722637165379042
230171816141759562624237743972
231181818181658575874647982882
232161613131358485854835971582
233161619191962962644763476922
234141612141445272623756075552
235151315121451563564767766552
236191916161834453846545256832
237191920191945852564548467752
238202020202056562714933974872
239141514171666863765756558932
240100612172013976761475407922
241081113151747653733848667552
242191920182062263553646877662
243121515151316953444874968652
244151818141728553874738864772
245172019151364563947626655552
246131414131637642639574499652
247131817171565744657826876962
248141615161545776365933807662
249161416161643585565857785542
250131516161642693945820775672
251111818161825734735157446842
252121617151655765097573545612
253182020202051273552275445342
254161316161375583557568534682

255111717161563642655538335032
256131213131434641746558446982
257202019201986473681448554862
258151419201676651578366468742
259171817191985563763558457942
260171919181941853575556985522
261191612191676673876939545642
262141315121174473552784704552
263112016151458575757755845852
264141920171712532959550674962
265202020202033673734578846832
266161617171755734753267535932
267121615181884633754756896662
268202019202056493767457875772
269122018151656584985745386042
270171919181874784476668665942
271141618161677685546247846652
272182017151655762444177279642
273182020172095347772438822862
274151514151465353536757955752
275161616161657584454465876742
276091011131466741669367535642
277171817171564784555675467542
278202020161754493667575868642
279131316141555452947716754742
280100815131433353746834037402
281181918171654472755427064962
282111710151745453647350754262
283131212131363363566856565562
284081217151141675361838757552
285152020141878482835549354842
286202020202064775474296446952
287131719151765961567594544812
288202020202052661776878754912
289091418121656776573625857642
290172015161381293646658864752
291091317151142553475860866562
292131719131735424554626866662
293161615151556175662756875352
294171918161856744563487746842
295161919171455681555446564542
296141916101355683381786876552
297091317161445454548647874642
298161516181477263565786666562
299171918171733364667654885832
300171816131664683685534554822
301121313121157573653656566552
302122019192049605687755254022
303141716161796563566467406452
304181619181864154556748965782
305151515141642354757636966972
306121615121535363842626964762
307191919181947763944927568972
308192018191945854647660466842

309191418111664531056327055662
310121719171653463864838694752
311151616121357555356765446842
312192020201855663554850075862
313191819192076697303665173822
314192018171885575697575574642
315121618162058832826545858642
316181615151445253756555862442
317141615171758642866540436842
318202020202003385355786455332
319192018171934594692665385532
320131814141446172555758855652
321161814141783283662028983642
322121618141644172836946823462
323151717171554774464775586652
324131519151633342639966835962
325151616121465572547737666862
326171717171734885565588176562
327181819171723254456756795842
328142018151423633843447436622
329141416191647663946666576942
330171719191766573547430754742
331181818161843672644837774742
332191817192055762576583366542
333202020202051663466850778552
334131817181665662842566664722
335181518201663671363654795572
336171513151645363654350587742
337131514161562563767655667942
338171818181857893887575556842
339202020202043483754656467752
340202019171743683775969675652
341151918141864353949857988762
342161616131676393654457864842
343131717151670762869367415632
344131315141442563565956095562
345181916161736161637257753562
346191718161531463562847875432
347181819191675866599155234852
348151617121746795679673685852
349171619191659665557574655542
350131716131445822939526628552
351151918161541462952820886862
352151415181935373654664455882
353141714151642785854828858652
354101111181888474854789768442
355182020192032473554654765672
356131415181263664582345761752
357202018201787574493643754242
358161920181636644649737534652
359161513141427564763645879642
360161916181868365557545874372
361141219161668108681061707702
362161920181655773666397558842

363171516131755743654564677652
364171517131744562664656677552
365202018201864774766836585952
366141618201727663764458543862
367060410111036341620640952492
368151717171565463456548755632
369151517161941574453755676542
370101317151255373457555567342
371171620181931573543737877742
372121114141443475465555784552
373151616141466562543844867552
374141818181846453769656756762
375171817171764562974658963052
376121720201940362754655466042
377161918161556261845739846662
378071317171857695486664277742
379131814151675843768349774042
380171814111152693583675463442
381181819161827573766525626942
382111316141865976974666346922
383201820171942755572684696942
384151614151547465745836664752
385151717161526351620546847652
386151720161766633858758657042
387202019171774885674847576852
388182019191855873666226463632
389161519181951562743828966742
390162019171865352076846774052
391202018201743474864017685702
392161919181762552557015755482
393151816161555643750420446532
394151317131595266789014766692
395182017161857844777587363822
396192017191556773886557776742
397131113141456574447545754652
398171716161764273874627485542
399121616091473865868678455712

APPENDIX C
CORRELATION MATRICES

CORRELATION MATRIX BETWEEN SPIRITUAL GIFTS CLUSTERS
AND 16 PF FOR THE SEMINARIAN SAMPLE

| | TEACHER | SHEPHERD | SUPPORT | COUNSEL | LEADER | A | B | C | E | F | G |
|-------------|----------|------------------------------------|----------|----------|----------|----------|---------|----------|----------|----------|---------|
| SHEPHERD | .4133** | | | | | | | | | | |
| SUPPORT | .2468** | .5670** | | | | | | | | | |
| COUNSEL | .3766** | .3666** | .4149** | | | | | | | | |
| LEADER | .4339** | .4511** | .3933** | .4619** | | | | | | | |
| A | .1366* | .1222 | .1288* | .0747 | .1218 | | | | | | |
| B | .0147 | -.1786** | -.1532* | .0354 | -.0736 | -.0564 | | | | | |
| C | .1404* | .0563 | .0674 | .1719** | .1865** | .0407 | .0568 | | | | |
| E | .1682** | -.0540 | -.0242 | .2352** | .2577** | .1791** | .0866 | -.0233 | | | |
| F | .1691** | .0739 | .0556 | .1670** | .1793** | .3327** | -.0174 | .1370* | .3371** | | |
| G | .0444 | .1561* | .1954** | .0337 | .2223** | .0160 | -.0728 | -.0554 | -.0411 | -.0765 | |
| H | .3148** | .2415** | .1782** | .2914** | .3718** | .3105** | -.0455 | .2110** | .3913** | .5402** | .0385 |
| I | .1014 | .0210 | -.0195 | .0455 | -.0563 | .2055** | .1053 | -.1034 | -.0341 | .0126 | -.0365 |
| L | -.0224 | -.0158 | -.0038 | .0551 | .0481 | .0147 | -.0481 | -.2091** | .2606** | .1253* | .0705 |
| M | .2238** | .0162 | -.0002 | .1224 | .1310* | .0589 | .2167** | .1066 | .0876 | .0430 | -.0897 |
| N | -.0107 | .0495 | -.0660 | -.0929 | -.0642 | -.0582 | -.0985 | -.0194 | -.3668** | -.3150** | .0499 |
| O | -.1962** | -.1406* | -.0467 | -.1966** | -.2977** | -.1018 | -.0652 | -.4757** | -.0639 | -.1536* | -.0007 |
| Q1 | -.0255 | -.1605** | -.0323 | .1260* | .0049 | -.0472 | .0491 | -.0581 | .2989** | .0513 | -.0151 |
| Q2 | -.1507* | -.1739** | -.1260* | -.0495 | -.0971 | -.3243** | .1899** | -.0601 | -.0527 | -.2994** | -.0159 |
| Q3 | .0749 | .1953** | .1983** | .1072 | .2376** | -.0123 | -.0480 | .2126** | -.1740** | -.1452* | .4100** |
| Q4 | -.1496* | -.1193 | -.2351** | -.2200** | -.1470* | -.0570 | .0841 | -.4691** | .0724 | -.0420 | -.0013 |
| | H | I | L | M | N | O | Q1 | Q2 | Q3 | Q4 | |
| I | .0458 | | | | | | | | | | |
| L | -.0050 | -.0281 | | | | | | | | | |
| M | .1575** | .1255* | -.1472* | | | | | | | | |
| N | -.2689** | .0081 | -.0861 | -.1970** | | | | | | | |
| O | -.3705** | .0171 | .2672** | -.2130** | .0348 | | | | | | |
| Q1 | .0064 | -.0143 | .1736** | .0904 | -.1893** | -.0073 | | | | | |
| Q2 | -.3176** | -.0964 | -.0060 | .0333 | .0555 | .0659 | .1588** | | | | |
| Q3 | .0870 | -.0120 | -.1887** | -.0677 | .1985** | -.2985** | -.1116 | .0220 | | | |
| Q4 | -.2369** | .0652 | .2179** | -.1537* | .0371 | .4454** | -.0169 | .0962 | -.2410** | | |
| N of cases: | 437 | 2-tailed Signif: * - .01 ** - .001 | | | | | | | | | |

CORRELATION MATRIX BETWEEN SPIRITUAL GIFTS CLUSTERS
AND 16 PF FOR THE FILIPINO SAMPLE

| | TEACHER | SHEPHERD | SUPPORT | COUNSEL | LEADER | A | B | C | E | F | G |
|-------------|----------|------------------------------------|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| SHEPHERD | .6433** | | | | | | | | | | |
| SUPPORT | .4883** | .6582** | | | | | | | | | |
| COUNSEL | .4544** | .4671** | .5846** | | | | | | | | |
| LEADER | .5039** | .5340** | .5799** | .6197** | | | | | | | |
| A | .1356* | .1194 | .0357 | .0834 | -.0006 | | | | | | |
| B | -.0188 | .0412 | -.0113 | .0430 | .0917 | .0095 | | | | | |
| C | .0728 | .0868 | .1360* | .1305* | .1551* | -.0179 | .0265 | | | | |
| E | .1113 | .0806 | .0296 | .0528 | .0400 | .1167 | .0494 | -.0204 | | | |
| F | .0135 | -.0175 | .0363 | .0513 | .1033 | .1608* | .0852 | .0652 | .1932** | | |
| G | .0218 | .1638* | .1163 | .0256 | .1344* | -.0257 | .2157** | .0177 | -.0632 | -.0927 | |
| H | .2679** | .2583** | .1979** | .1810** | .2485** | .2510** | -.0211 | .1595* | .3291** | .4203** | -.0215 |
| I | -.0555 | .0155 | .0084 | -.0401 | -.0259 | .0770 | .0668 | .0289 | -.2553** | -.0760 | .1004 |
| L | -.0649 | -.0783 | -.0557 | -.0219 | -.1110 | -.0116 | -.1684** | -.1567* | .1305* | .0817 | -.0088 |
| M | .0762 | -.0266 | .0136 | .0821 | .0825 | .0273 | .0504 | .1638* | .1006 | .0758 | -.2017** |
| N | -.0607 | .0078 | -.0711 | -.0905 | -.0841 | .0236 | -.0958 | -.1280 | -.2272** | -.2282** | .1564* |
| O | -.0923 | -.1151 | -.1312* | -.1188 | -.1916** | -.0248 | -.1113 | -.3564** | -.1214 | -.0984 | -.0720 |
| Q1 | .0189 | -.0524 | -.0229 | .0339 | -.0022 | -.0072 | -.1524* | -.0656 | .1957** | .0517 | -.1831** |
| Q2 | -.1202 | -.1339* | -.0144 | -.0346 | .0026 | -.1634* | .0664 | .0677 | .0181 | -.1624* | -.0112 |
| Q3 | .1463* | .2077** | .2625** | .1763** | .2795** | -.1131 | .1471* | .2337** | -.0026 | .0011 | .3204** |
| Q4 | -.0723 | -.0984 | -.0796 | -.0055 | -.1608* | .0369 | .0120 | -.3408** | -.0936 | .0058 | -.0248 |
| | H | I | L | M | N | O | Q1 | Q2 | Q3 | Q4 | |
| I | -.0447 | | | | | | | | | | |
| L | -.0647 | -.1276 | | | | | | | | | |
| M | .1692** | .0249 | -.1205 | | | | | | | | |
| N | -.1863** | .1025 | -.0100 | -.1540* | | | | | | | |
| O | -.2569** | -.0315 | .2746** | -.2025** | .1210 | | | | | | |
| Q1 | .1008 | -.2392** | .1730** | .0079 | -.1204 | .0944 | | | | | |
| Q2 | -.2535** | -.0160 | .0305 | .0719 | -.0430 | -.0590 | .0652 | | | | |
| Q3 | .1392* | .0392 | -.0988 | .0123 | .0005 | -.2319** | -.0853 | -.0364 | | | |
| Q4 | -.1761** | .0750 | .2237** | -.1899** | .0509 | .3724** | .0493 | -.0122 | -.2017** | | |
| N of cases: | 399 | 2-tailed Signif: * - .01 ** - .001 | | | | | | | | | |

APPENDIX D
THE 20 STATEMENTS OF THE NSGI
Copyright C 1990
Instructional Product Development
Berrien Springs, MI 49104

PLEASE NOTE

Copyrighted materials in this document have not been filmed at the request of the author. They are available for consultation, however, in the author's university library.

152

University Microfilms International

BIBLIOGRAPHY

- Adams, J. E. (1973). The Christian counselor's manual. Grand Rapids, MI: Baker Book House.
- Adams, J., & Klein, L. R. (1970). Students in nursing school: Considerations in assessing personality characteristics. Nursing Research, 19(4), 362-366.
- Adcock, C. J. (1959). Review of the Sixteen Personality Factor Questionnaire. In O. K. Buros (Ed.), The fifth mental measurements yearbook (pp. 197-199). Highland Park, NJ: Gryphon Press.
- Adcock, N. V., Adcock, C. J., & Walkey, F. H. (1974). Basic dimensions of personality. International Review of Applied Psychology, 23(2), 131-137.
- Agrimson, J. E. (Ed.). (1974). Gifts of the spirit and the body of Christ. Minneapolis, MN: Augsburg Publishing House.
- Allen, J. E. (1967). The adoption of innovations and the personality of the superintendent of schools. (Doctoral dissertation, Ohio State University, Columbus, 1967). Dissertation Abstracts International, 28, 2005A.
- Allport, G. W., & Odbert, H. S. (1936). Trait names: A psycho-lexical study. Psychological Monographs, 47 (211), 1-171.
- Ammon, Ray. (n.d.). Relationship between personality types and nineteen spiritual gifts. Unpublished manuscript. Andrews University, Berrien Springs, MI.
- Andrews, E. H. (1982). The promise of the spirit. Hertfordshire, England: Evangelical Press.
- Arn, Win (Ed.). (1979). The pastor's church growth handbook. Pasadena, CA: Church Growth Press.
- Arndt, W. B., Jr. (1974) Theories of personality. New York: Macmillan.

- Arnold, D. B., & Doyle, K. O., Jr. (1975). Educational/psychology journals: A scholar's guide. Metuchen, NJ: Scarecrow.
- Ayers, J. B., & Bashaw, W. L. (1969). A study of the validity of the Sixteen Personality Factor Questionnaire in predicting high school academic achievement. Educational and Psychological Measurement, 29, 479-484.
- Bachtold, L. M., & Werner, E. E. (1970). Personality profiles of gifted women: Psychologists. American Psychologist, 25, 234-243.
- Baird, William. (1980). 1 Corinthians, 2 Corinthians. Atlanta, GA: John Knox Press.
- Banks, R. R. (1966). Selected social and psychological variables related to role satisfaction among graduate ministerial students in a Seventh-day Adventist seminary. (Doctoral dissertation, University of Notre Dame, 1966). Dissertation Abstracts International, 27, 2384A.
- Barclay, William. (1980). The promise of the Spirit. Philadelphia, PA: Westminster Press.
- Barnes, R. S. (1984). The miraculous gifts of the Holy Spirit--Have they ceased? The Journal of Pastoral Practice, 7(1), 18-33.
- Barnette, H. H. (1965). Christian calling and vocation. Grand Rapids, MI: Baker Book House.
- Barnette, W. L., Jr. (1976). Reading in psychological tests and measurements. Baltimore, MD: Williams & Wilkins.
- Barry, W. A., & Bordin, E. S. (1967). Personality development and the vocational choice of the ministry. Journal of Counseling Psychology, 14(5), 395-403.
- Barton, K., & Cattell, R. B. (1972). Real and perceived similarities in personality between spouses: A test of "likeness vs. completeness" theories. Psychological Reports, 32, 15-18.
- Baxter, R. E. (1983). Gifts of the spirit. Grand Rapids, MI: Kregel Publications.

- Becker, W. C. (1961). A comparison of the factor structure and other properties of the 16 PF and the Guilford-Martin Personality Inventory. Educational and Psychological Measurement, 21, 309-404.
- Beet, J. A. (1883). A commentary on St. Paul's epistles to the Corinthians (2nd ed.). London: Hodder and Stoughton.
- Bennett, L. L. (1979, July). A study of spiritual gifts with a program designed for its understanding and implementation by a local congregation. Unpublished doctor of ministry project, Andrews University, Berrien Springs, MI.
- Berkhouwer, G. C. (1962). Man: The image of God. Grand Rapids, MI: Eerdmans.
- Birkin, T. A. (1969). Some educational influences on creativity changes. Paper presented at Australian and New Zealand Association for the Advancement of Science, Adelaide.
- Bischof, L. J. (1964). Interpreting personality theories. New York, NY: Harper & Row.
- Bittlinger, A. (1967). A commentary on 1 Corinthians 12-14: Gifts and graces. Grand Rapids, MI: Eerdmans.
- Bittlinger, A. (1973). Gifts and ministry. Grand Rapids, MI: Eerdmans.
- Bloxom, B. M. (1978). Review of the Sixteen Personality Factor Questionnaire. In O. K. Buros (Ed.), The eighth mental measurements yearbook (pp. 1077-1078). Highland Park, NJ: Gryphon Press.
- Bolton, B. F. (1978). Review of the Sixteen Personality Factor Questionnaire. In O. K. Buros (Ed.), The eighth mental measurements yearbook (pp. 1078-1080). Highland Park, NJ: Gryphon Press.
- Boyd, F. M. (1970). The Spirit works today. Springfield, MO: Gospel Publishing House.
- Briggs, K. C., & Myers, I. B. (1977). Myers-Briggs Type Indicator. Palo Alto, CA: Consulting Psychologists Press.

- Britt, W. G. (1981). The prediction of missionary success overseas using pretraining variables. (Doctoral dissertation, Biola University, 1981). Dissertation Abstracts International, 42, 03B.
- Brown, C. (Ed.). (1976) The new international dictionary of New Testament theology. Vol. 2. Grand Rapids, MI: Regency.
- Bruno, F. J. (1980). Behavior and life: An introduction to psychology. New York, NY: John Wiley & Sons.
- Bruner, F. D. (1970). A theology of the Holy Spirit. Grand Rapids, MI: Eerdmans.
- Bryant, C. (1983). Prayer and different types of people. Gainesville, FL: Center for Applications of Psychological Type.
- Butcher, J. N. (1985). Review of the Sixteen Personality Factor Questionnaire. In J. V. Mitchell (Ed.), The ninth mental measurements yearbook (pp. 1391-1394). Lincoln, NB: University of Nebraska.
- Carlson, N. R. (1988). Discovering psychology. Boston, MA: Allyn and Bacon.
- Carskadon, T. G. (1981). Psychological type and religious preferences. Research in Psychological Type, 4, 73-78.
- Carter, C. W. (1974). The person and ministry of the Holy Spirit: A wesleyan perspective. Grand Rapids, MI: Baker.
- Carter, J. D., & Narramore, B. (1979). The integration of psychology and theology: An introduction. Grand Rapids, MI: Academie Books.
- Cartwright, D. S. (1974). Introduction to personality. Chicago, IL: Rand McNally.
- Cattell, R. B. (1946). The description and measurement of personality. Yonkers-on-Hudson, NY: World Book Company.
- Cattell, R. B. (1950). Personality: A systematic theoretical and factual study. New York, NY: McGraw-Hill.

- Cattell, R. B. (1952) Factor analysis: An introduction and manual for the psychologist and social scientist. Westport, CT: Greenwood Press.
- Cattell, R. B. (1956). Validation and intensification of the Sixteen Personality Factor Questionnaire. Journal of Clinical Psychology, 12, 205-214.
- Cattell, R. B. (1957). Personality and motivation structure and measurement. Yonkers-on-Hudson, NY: World Book Company.
- Cattell, R. B. (1965). The scientific analysis of personality. Baltimore, MD: Penguin.
- Cattell, R. B. (Ed.). (1966). Handbook of multivariate experimental psychology. Chicago, IL: Rand McNally.
- Cattell, R. B. (1972). The 16 PF and Basic Personality Structure: A reply to Eysenck. Journal of Behavioral Science (South Africa), 1(4), 169-187.
- Cattell, R. B. (1973). Personality and mood by questionnaire. San Francisco: Jossey-Bass.
- Cattell, R. B. (1974a). How good is the modern questionnaire? General principle for evaluation. Journal of Personal Assessment, 38, 115-129.
- Cattell, R. B. (1974b). A large sample cross-check on 16 PF: Primary structure by parcelling factors. Journal of Multivariate Experimental Person and Clinic Psychology, 1(2), 79-95.
- Cattell, R. B., & Bolton, L. S. (1969). What pathological dimensions lie beyond the normal dimensions of the 16 PF? A comparison of MMPI and 16 PF factor domains. Journal of Consulting and Clinical Psychology, 33, 18-29.
- Cattell, R. B., Day, D., & Meeland, T. (1956). Occupational profiles on the 16 Personality Factor Questionnaire. Occupational Psychology, 30, 10-19.
- Cattell, R. B., & Eber, H. W. (1964). Handbook of the Sixteen Personality Factor Questionnaire (16 PF). Champaign, IL: Institute for Personality and Ability Testing.

- Cattell, R. B., Eber, H. W., & Tatsuoka, M. M. (1970). Handbook for the Sixteen Personality Factor Questionnaire (16PF). Champaign, IL: Institute for Personality and Ability Testing.
- Cattell, R. B., & Gibbons, B. D. (1968). Personality factor structure of the combined Guilford and Cattell personality questionnaires. Journal of Personality and Social Psychology, 9, 107-120.
- Cattell, R. B., Saunders, D. R., & Stice, G. F. (1949). Sixteen Personality Factor Questionnaire (16PF). Champaign, IL: Institute for Personality and Ability Testing.
- Cattell, R. B., & Scheier, I. H. (1965). Personality measurement in applied psychology as illustrated by the 16 PF test. Revista de Psicologia Normal e Patologica, 9, 42-58.
- Cattell, R. B., & Stice, G. F. (1954). Four formulae for selecting leaders on the basis of personality. Human Relations, 7, 493-507.
- Cattell, R. B., & Warburton, F. W. (1967). Objective personality and motivation tests. Urbana, IL: University of Illinois Press.
- Chalmers, E. M. (1969). The relationship between personality characteristics and performance in the Seventh-day Adventist ministry. (Doctoral dissertation, University of Tennessee, Knoxville).
- Chalmers, E. M., & Chalmers, E. W. (1979). Making the most of family living. Mountain View, CA: Pacific Press Publishing Association.
- Childers, R. D., & White, W. F. (1966). The personality of selected theological students. Personal and Guidance Journal, 44, 507-510.
- Clarke, T. E. (1983). Jungian types and forms of prayers. Review for Religious, 42(5), 661-676.
- Coleman, R. J., & Riley, M. J. (1970). The chief executive: His personality characteristics and the firm's growth rate. Personnel Journal, 49(12), 994-1001.
- Collins, G. R. (1977). The rebuilding of psychology: An integration of psychology and Christianity. Wheaton, IL: Tyndale House.

- Collins, G. R. (1981). Psychology and theology: Prospects for integration. Nashville, TN: Abingdon.
- Collins, G. R. (1988). Can you trust psychology? Downers Grove, IL: Inter Varsity Press.
- Comrey, A. L. (1970). Comrey Personality Scales. San Diego, CA: Educational and Industrial Testing Service.
- Conzelmann, H. (1974). Charisma, charismata. In G. Kittel & G. Friedrich (Eds.) & G. Bromiley (Trans.), Theological dictionary of the New Testament (Vol. 9, pp. 402-406). Grand Rapids, MI: Eerdmans.
- Cowden, J. E., Schroeder, C. R., & Peterson, W. M. (1971). The CPI vs. the 16 PF at a reception center for delinquent boys. Journal of Clinical Psychology, 27, 109-111.
- Criswell, W. A. (1966). The Holy Spirit in today's world. Grand Rapids, MI: Zondervan.
- Criswell, W. A. (1973). The baptism, filling and gifts of the Holy Spirit. Grand Rapids, MI: Zondervan.
- Cronbach, L. J., & Meehl, P. E. (1955). Construct validity in psychological tests. Psychological Bulletin, 52, 281-302.
- Culppepper, R. H. (1977). Evaluating the charismatic movement: A theological and biblical appraisal. Valley Forge, PA: Judson Press.
- Cunningham, G. K. (1986). Educational and psychological measurement. New York: Macmillan.
- Dahlstrom, W. G., & Welsh, G. S. (1972). An MMPI handbook. Minneapolis, MN: University of Minnesota Press.
- Donnan, H. H., Harlan, G. E., & Thompson, S. A. (1969). Counselor personality and level of functioning as perceived by counselees. Journal of Counseling Psychology, 16(6), 482-485.
- Draper, N. R., & Smith, H. (1981). Applied regression analysis. New York: John Wiley & Sons.
- Drevdahl, J. E., & Cattell, R. B. (1958). Personality and creativity in artists and writers. Journal of Clinical Psychology, 14, 107-111.

- Dunn, J. D. G. (1970). Baptism in the Holy Spirit. Philadelphia, PA: Westminster.
- Dunn, J. D. G. (1975). Jesus and the Spirit. London: SCM.
- Dunn, R. F. (1965). Personality pattern among religious personnel: A review. Catholic Psychological Record, 3(2), 125-137.
- Edwards, L. (1988). Discerning your spiritual gifts. Cambridge, MA: Cowley.
- Ellens, J. H. (1983). God's grace and human health. Nashville, TN: Abingdon.
- Ellis, E. E. (1974, January). 'Spiritual' gifts in the Pauline community. New Testament Studies, 20, 128-144.
- Ellis, E. E. (1989). Pauline theology: Ministry and society. Grand Rapids, MI: Eerdmans.
- Ervin, H. M. (1968). These are not drunken as ye suppose. Plainfield, NJ: Howard M. Ervin.
- Ervin, H. M. (1987). Spirit-baptism: A biblical investigation. Peabody, MA: Hendrickson.
- Esser, H. H. (1976). Grace, spiritual gifts. In Colin Brown (Ed.), The new international dictionary of New Testament theology, (Vol. 2, pp. 115-123). Grand Rapids, MI: Zondervan.
- Eysenck, H. J., & Eysenck, S. B. G. (1968). Eysenck Personality Inventory. San Diego, CA: Educational and Industrial Testing Service.
- Farnsworth, K. (1981). Integrating psychology and theology: Elbows together but hearts apart. Washington, DC: University Press of America.
- Farnsworth, K. (1985). Wholehearted integration. Grand Rapids, MI: Baker Book House.
- Feine, P., Behm, J., & Kuemmel, W. G. (1966). Introduction to the New Testament. (Ed. and Trans. A. J. Mattill, Jr.; 14th rev. ed.). Nashville, TN: Abingdon.
- Fife, E. S. (1978). The Holy Spirit. Grand Rapids, MI: Zondervan.

- Findlay, G. G. (1951). St. Paul's First Epistle to the Corinthians, "The Expositor's Greek Testament." Grand Rapids, MI: Eerdmans.
- Flynn, L. B. (1974). Nineteen gifts of the spirit. Wheaton, IL: Victor Books.
- Ford, L. (1977). Good news is for sharing. Elgin, IL: David C. Cook Publishing Co.
- Gaffin, R. B. Jr. (1979). Perspectives on pentecost. Phillipsburg, NJ: Presbyterian and Reformed Publishing Co.
- Gangel, K. O. (1975). You and your spiritual gifts. Chicago, IL: Moody Bible Institute.
- Gangel, K. O. (1983). Unwrap your spiritual gifts. Wheaton, IL: Victor Books.
- Gee, D. (1972a). Concerning spiritual gifts. Springfield, MO: Gospel Publishing House.
- Gee, D. (1972b). Now that you have been baptized in the Spirit. Springfield, MO: Gospel Publishing House.
- Gerhardt, R. (1983). Liberal religion and personality type. Research in Psychological Type, 6, 47-53.
- Getz, G. A. (1976). Building up one another. Wheaton, IL: Victor Books.
- Givone, R. (1969). The personality of basketball players from rural and urban areas as measured by the Cattell Sixteen Personality Factor Questionnaire. (Master's thesis, University of Massachusetts, Amherst).
- Goetchius, V. N., & Price, C. P. (1984). The gift of God. Wilton, CT: Morehouse Barlow.
- Goldschmid, M. L. (1967). Prediction of college majors by personality type. Journal of Counseling Psychology, 14, 302-308.
- Gorman, B. S. (1970). 16 PF correlates of sensation-seeking. Psychological Reports, 26, 741-742.

- Gottesman, D. T. (1964). Relationships between Cattell's Sixteen Personality Factor Questionnaire and physique, strength, and motor traits of college men. (Doctoral dissertation, University of Oregon, Eugene).
- Gough, H. G. (1975). Manual for the California Psychological Inventory. Palo Alto, CA: Consulting Psychologists Press.
- Green, M. (1975). I believe in the Holy Spirit. Grand Rapids, MI: Eerdmans.
- Griffiths, M. (1978). Grace--Gifts. Grand Rapids, MI: Eerdmans.
- Guilford-Zimmerman Temperament Survey. (1949) Orange, CA: Sheridan Psychology Services.
- Hall, C. S., & Lindzey, G. (1957). Theories of personality. New York, NY: John Wiley & Sons.
- Hall, C. S., & Nordby, V. J. (1973). A primer of Jungian psychology. New York, NY: Taplinger.
- Harbaugh, G. L. (1984). The person in ministry: Psychological type and the seminary. Journal of Psychological Type, 8, 23-32.
- Hathaway, S. R., & McKinley, J. C. (1967). Minnesota Multiphasic Personality Inventory. New York: Psychology Corporation.
- Hay, J. E. (1966, June). Self-ideal congruence among engineering managers. Personality and Guidance Journal, 1084-1088.
- Hayward, A. E. (1970). The 16 PF and a general psychiatric factor. British Journal of Social and Clinical Psychology, 9(4), 382-383.
- Hendry, L. B. (1969). A personality study of highly successful and 'ideal' swimming coaches. Research Quarterly, 40(2), 299-304.
- Hemphill, K. S. (1988). Spiritual gifts: Empowering the New Testament church. Nashville, TN: Broadman Press.
- Hergenhahn, B. R. (1980). An introduction to theories of personality. Englewood Cliffs, NJ: Prentice-Hall.

- Hinkle, D. E., Wiersma, W., & Jurs, S. G. (1988). Applied statistics for the behavioral science. Boston, MA: Houghton Mifflin.
- Holsworth, T. E. (1984). Type preferences among Roman Catholic seminarians. Journal of Psychological Type, 8, 33-35.
- Horton, H. (1975). The gifts of the Spirit. Springfield, MO: Gospel.
- Houts, R. F. (1976, May). All God's children have gifts! Eternity, 18-21.
- Hummel, Charles E. (1978). Fire in the fireplace: Contemporary charismatic renewal. Downers Grove, IL: Inter-Varsity Press.
- Hundleby, J. D., & Connor, W. H. (1968). Interrelationships between personality inventories: The 16 PF, the MMPI, and the MPI. Journal of Consulting and Clinical Psychology, 32, 152-157.
- IPAT Staff. (1970). Tabular Supplement No. 1 to the 16 PF Handbook. Champaign, IL: Institute for Personality and Ability Testing.
- IPAT Staff. (1972). Manual for the 16 PF. Champaign, IL: Institute for Personality and Ability Testing.
- James, W. (1952). The varieties of religious experience. London: Longman. (First published in 1901.)
- Jarrett, J. T. (1972). The logic of psychological opposition: Or how opposite is opposite? Journal of Analytical Psychology, 24, 318-325.
- Joachim, R. L. (1984). Relationship between four temperament types and nineteen spiritual gifts. (Doctoral dissertation, Andrews University, August, 1984).
- Johnson, E. H. (1943). Personality traits of workers in the field of religion. Religious Education, 38, 325-329.
- Jones, R. W. (1985). Using spiritual gifts. Nashville, TN: Broadman Press.
- Jordan, F. (1896). Character as seen in body and parentage. London: n.p.

- Judisch, D. (1978). An evaluation of claims to the charismatic gifts. Grand Rapids, MI: Baker.
- Jung, C. G. (1923). Psychological types. New York: Harcourt, Brace.
- Karson, S., & O'Dell, J. W. (1971). Performance ratings and personality factors in radar controllers. Journal of Clinical Psychology, 27(3), 339-342.
- Karson, S., & O'Dell, J. W. (1974). Is the 16 PF factorially valid? Journal of Personality Assessment, 38, 104-114.
- Karson, S., & O'Dell, J. W. (1976). A guide to the clinical use of the 16 PF. Champaign, IL: Institute for Personality and Ability Testing.
- Karson, S., & O'Dell, J. W. (1989). The 16 PF. In C. S. Newmark (Ed.), Major psychological assessment instruments (Vol. 2, pp.45-66). Boston, MA: Allyn and Bacon.
- Karson, S., & Pool, K. B. (1957). The construct validity of the Sixteen Personality Factors Test. Journal of Clinical Psychology, 13, 245-252.
- Kear-Colwell, J. J. (1970). The B factor scale of the 16 PF as a measure of intelligence in psychiatric patients. Journal of Clinical Psychology, 24 (4), 477-479.
- Keirse, D., & Bates, M. (1984). Please understand me: Character and temperament types. Del Mar, CA: Prometheus Nemesis.
- Kendall, M. G. (1975). Multivariate analysis. New York: Hafner Press.
- Kimber, J. A. M. (1947). Interests and personality traits of Bible Institute students. Journal of Social Psychology. 26, 225-233.
- Kinghorn, K. C. (1976). Gift of the Spirit. Nashville, TN: Abingdon.
- Kinghorn, K. C. (1981). Discovering your spiritual gifts: A personal inventory method. Grand Rapids, MI: Francis Asbury.

- Kleinbaum, D. G., & Kupper, L. L. (1978). Applied regression analysis and other multivariable methods. North Scituate, MA: Duxbury.
- Knapp, B. (1965). The personality of lawn tennis players. Bulletin of the British Psychological Society, 186, 2, 21-23.
- Knief, L. M. (1966). The personality of pre-theological majors. Journal of Experimental Education, 34(4), 62-68.
- Koenig, John. (1978). Charismata: God's gifts for God's people. Philadelphia, PA: Westminster.
- Kohls, Sister T. A. (1959). The relationship between personal adjustment and spirituality in religious sisters. (Master's thesis, Fordham University).
- Koteskey, R. L. (1980). Psychology from a Christian perspective. Nashville, TN: Abingdon.
- Kroll, W. (1967). Sixteen personality factor profiles of collegiate wrestlers. Research Quarterly, 38, 49-57.
- Krug, S. E. (1981). Interpreting 16 PF profile patterns. Champaign, IL: Institute for Personality and Ability Testing.
- Kydd, R. A. N. (1984). Charismatic gifts in the early church. Peabody, MA: Hendrickson.
- LaForge, R. (1962). A correlational study of two personality tests: The MMPI and Cattell 16 PF. Journal of Consulting Psychology, 26, 402-411.
- Lanyon, R. I. (1973). Psychological Screening Inventory: Manual. Goshen, NY: Research Psychologists Press.
- Laurentin, R. (1978). Terminological precision. In C. Duquoc, & C. Floristan (Eds.), Charisms in the church (pp. 3-112). New York: The Seabury Press.
- Lawrence, G. D. (1982). People types and tiger stripes: A practical guide to learning styles. Gainesville, FL: Center for Applications of Psychological Types.
- Lebovits, B. Z., & Ostfeld, A. M. (1970). Personality, defensiveness and educational achievement: 2. The Cattell 16 PF Questionnaire. Journal of Clinical Psychology, 26 (2), 183-188.

- Levine, M. S. (1977). Canonical correlation and factor comparison. Beverly Hills, CA: SAGE.
- Lindsell, Harold. (1972, December). Test for the tongues movement. Christianity Today,
- Lindsell, Harold. (1975, January). Spiritual gifts. Christianity Today, 19, 5-9.
- Long, R. L. (1970). The relationship between certain personality factors and the behavioral characteristics of elementary school principals. (Doctoral dissertation, University of Virginia). Dissertation Abstracts International, 31, 4422A.
- Lorr, M., Nerviano, V., & Myhill, J. (1985). Factors common to the ISI and 16 PF inventories. Journal of Clinical Psychology, 41, 773-777.
- Lorr, M., & Youniss, R. P. (1973). An inventory of interpersonal style. Journal of Personality Assessment, 37, 165-173.
- Lowe-Holmes, A. R. (1971). 16 P.F. differences within a city fire service. National Foundation for Educational Research Test Information Bulletin, No. TIS/05.03.
- Lucassen, M. R. (1963). Appraisal of potential leadership qualities among young women religious. (Doctoral dissertation, Loyola University, Chicago).
- MacArthur, John. (1979). The charismatics: A doctrinal perspective. Grand Rapids, MI: Zondervan.
- MacGorman, J. W. (1974). The gifts of the Spirit. Nashville, TN: Broadman Press.
- Mallone, G. (1983). Those controversial gifts. Downers Grove, IL: InterVarsity Press.
- Mamchur, C. M. (1984). Insights: Understanding yourself and others. Toronto, Ontario: Ontario Institute for Studies in Education.
- Mason, E. A. (1967). Identifying creativity in art students with the Sixteen Personality Factor Questionnaire. (Master's thesis, Brigham Young University).

- Mattie, E. C. (1970). Personality factors in the discrimination of medical, surgical and obstetrical specialists. (Doctoral dissertation, Catholic University of America, Washington DC, 1970). Dissertation Abstracts International, 31, 2189A.
- McLemore, C. W. (1982). The scandal of psychotherapy. Wheaton, IL: Tyndale House.
- McRae, W. J. (1976). The dynamics of spiritual gifts. Grand Rapids, MI: Zondervan.
- Menges, R. J., & Dittes, J. E. (1965). Psychological studies of clergymen: Abstracts of research. New York, NY: Nelson.
- Meyer, H. A. W. (1883). Critical and exegetical commentary on the New Testament. Edinburgh: T. & T. Clark.
- Miller, S. H. (1952). Exploring the boundary between religion and psychiatry. Journal of Pastoral care, 6(2), 1-11.
- Minnick, M. L. (1969). An analysis of the interrelationship between selected Cornell Index groups and their Sixteen Personality Factor Questionnaire scores. (Doctoral dissertation, Ball State University, 1969). Dissertation Abstracts International, 30, 3327A.
- Mischel, W. (1969). Continuity and change in personality. American Psychologist, 24, 1012-1018.
- Moore, T. V. (1936a). Insanity in priests and religious. Part I. The rate of insanity in priests and religious. American Ecclesiastical Review, 95, 485-498.
- Moore, T. V. (1936b). Insanity in priests and religious. Part II. The detection of pre-psychotics who apply for admission to the priesthood or religious communities. American Ecclesiastical Review, 95, 601-613.
- Morris, L. W. (1979). Extraversion and introversion: An interactional perspective. New York, NY: Hemisphere Publishing.
- Muhlen, Heribert. (1978). A charismatic theology: Invitation in the Spirit (E. Quinn and T. Linton, Trans.). New York, NY: Paulist Press.

- Murphy, E. F. (1975). Spiritual gifts and the great commission. South Pasadena, CA: Mandate Press.
- Myers, D. G. (1986). Psychology. New York, NY: Worth Publishers.
- Myers, I. B., & Myers, P. B. (1980). Gifts differing. Palo Alto, CA: Consulting Psychologists Press.
- Naden, R. C. (1989). Your spiritual gifts: Making the great discovery. Berrien Springs, MI: IPD.
- Naden, R. C. (1990a). Your spiritual gifts: Manual. Berrien Springs, MI: IPD.
- Naden, R. C. (1990b). Your spiritual gifts: The new spiritual gifts inventory. Berrien Springs, MI: IPD.
- Naden, R. C., & Cruise, R. J. (1981). The spiritual gifts inventory. Berrien Springs, MI: Institute of Church Ministry.
- Naden, R. C., Swanson, P., & Thayer, J. D. (1992). Unpublished manuscript. Andrews University, Berrien Springs, MI.
- Narramore, S. B. (1984). No condemnation. Grand Rapids, MI: Zondervan.
- Narramore, S. B. (1974). Where theology and psychology meet. Journal of Psychology and Theology, 2, 18-25.
- Nauss, A. H. (1968). The ministerial personality: On avoiding a stereotype trap. Journal of Counseling Psychology, 15(60), 581-582.
- Neighbour, R. W., Jr. (1974). This gift is mine. Nashville, TN: Broadman Press.
- Null, E. J. (1971). Relationship between personal variables of teachers and their perception of the behavior of school personnel. Journal of Educational Research, 64(8), 351-354.
- O'Connor, Elizabeth, (1971). Eighth day of creation. Waco, TX: Word Books.

- Oden, W. B. (1964). Preaching and personality: A functional typology related to perceptions of selected pastors. (Doctoral dissertation, Boston University School of Theology).
- Orjala, P. R. (1978). Get ready to grow. Kansas City, MO: Beacon Hill Press of Kansas City.
- Owen, John. (1971). The Holy Spirit. Grand Rapids, MI: Sovereign Grace Publishers.
- Pallone, N. J., & Banks, R. R. (1968). Vocational satisfaction among ministerial students. Personnel and Guidance Journal, 46, 870-875.
- Pallone, N. J., Driscoll, J., & Droba, M. (1969). Correlates of vocational satisfaction among nuns and brothers. National Catholic Guidance Conference Journal, 14(1), 5-20.
- Pentecost, J. D. (1970). The divine Comforter. Chicago, IL: Moody Press.
- Phoon, C. Y. (1986). A correlational study of Jungian psychological types and nineteen spiritual gifts. (Doctoral dissertation, Andrews University, July, 1986).
- Piepkorn, A. (1971, May). Charisma in the New Testament and the Apostolic Fathers. Concordia Theological Monthly, 42, 369-89.
- Porter, R. B. (1970) Test results as an aid in personnel selection. Journal of Employment Counseling, 7, 36-39.
- Purkiser, W. T. (1975). The gifts of the Spirit. Kansas City, KS: Beacon Hill Press.
- Query, W. T. (1966). CPI factors and success of seminary students. Psychological Reports, 18(2), 665-666.
- Repicky, R. A. (1981). Jungian typology and Christian spirituality. Review for Religious, 40(3), 422-435.
- Rhodes, R. G. Measuring change in short-term psychotherapy using the Sixteen Personality Factor Questionnaire as the instrument. (Doctoral dissertation, Indiana University). Dissertation Abstracts International, 31, 6412A.

- Rich, E. C. (1934). The gift of the Spirit. London: Society for Promoting Christian Knowledge.
- Richards, L. O. (1975). A theology of Christian education. Grand Rapids, MI: Zondervan.
- Richards, W. T. H. (1972). Pentecost is dynamite. Nashville, TN: Abingdon.
- Robeck, C. M. Jr. (Ed.). (1985). Charismatic experiences in history. Peabody, MA: Hendrickson.
- Roe, Anne. (1956). The psychology of occupations. New York, NY: John Wiley.
- Ruskjer, R. E. (1980). Selected personality and motivation variables related to behavioral commitment to certain health teachings of Seventh-day Adventists. (Doctoral dissertation, Andrews University, June, 1980).
- Samarin, W. J. (1972). Tongues of men and angels. New York, NY: Macmillan.
- Sanders, J. O. (1979). The Holy Spirit and his gifts. Grand Rapids, MI: Zondervan.
- SAS/STAT user's guide. (1988). Cary, NC: SAS Institute, Inc.
- Schaefer, E. S. (1971). Development of hierarchical, configural models for parent behavior and child behavior. In S. P. Hill (Ed.), Minnesota symposium on child psychology (Vol. 5). Minneapolis, MN: University of Minnesota Press.
- Schatzmann, S. S. (1987). A Pauline theology of charismata. Peabody, MA: Hendrickson.
- Schramm, M. R. (1982). Gifts of grace. Minneapolis, MN: Augsburg Publishing House.
- Schroeder, C. E. (1958). Personality patterns of advanced Protestant theology students and physical science students. Dissertation Abstracts International, 18, 154-155.
- Schultz, D. (1976). Theories of personality. Monterey, CA: Brooks/Cole.

- Schweizer, E. (1961). Church order in the New Testament (F. Clarke, Trans.). Naperville, IL: Alex R. Allenson.
- Schweizer, E. (1980). The Holy Spirit (H. Reginald and I. Fuller, Trans.). Philadelphia, PA: Fortress Press.
- Schweitzer, E. (1968). Pneuma, pnematikos. In G. Kittel & G. Friedrich (Eds.) & G. Bromiley (Trans.), Theological dictionary of the New Testament (Vol. 4, pp. 389-451). Grand Rapids, MI: Eerdmans.
- Shatin, L., Kotter, W., & Longmore, G. (1968). Personality traits of music therapists. Psychological Reports, 23, 573-574.
- Shaw, George. (1910). The Spirit in redemption. New York: Christian Alliance Publishing Co.
- Siegelman, N., & Peck, R. F. (1960). Personality patterns related to occupational roles. Genetic Psychology Monographs, 61, 291-349.
- Simpson, A. B. (1895). The Holy Spirit or power from on high (2 vols.). New York: Christian Alliance Publishing Co.
- Sneck, W. J. (1981). Charismatic spiritual gifts: A phenomenological analysis. Washington, DC: University Press of America.
- Spearman, C. (1904). "General intelligence" objectively determined and measured. The American Journal of Psychology, 15, 201-293.
- Spearman, C. (1927). Abilities of man. New York: Macmillan.
- Stedman, R. C. (1972). Body life. Glendale, CA: G/L Regal.
- Stendahl, K. (1976). Paul among Jews and gentiles. Philadelphia, PA: Fortress Press.
- Stevens, J. (1986). Applied multivariate statistics for the social sciences. Hillsdale, NJ: Lawrence Erlbaum.
- Stewart, H. (1966). Personality characteristics of student nurses having high and low frequency of physical illness. Psychological Reports, 18, 972.

- Stewart, J. C. (1990). Validation of a multidimensional assessment battery for ministerial candidates (Doctoral dissertation, Fuller Theological Seminary, 1990). Dissertation Abstracts International, 51, 07B.
- Stott, J. R. (1964). Baptism and fullness. London: Inter Varsity.
- Straub, W. F. (1971). Personality traits of college football players who participated at different levels of competition. International Journal of Sport Psychology, 2(1), 33-41.
- Strauss, L. (1976). Be filled with the Spirit. Grand Rapids, MI: Zondervan.
- Stronstad, R. (1984). The charismatic theology of St. Luke. Peabody, MA: Hendrickson.
- Suenens, L. J. (1974). A new pentecost? New York: Seabury.
- Sullivan, F. A. (1982). Charisms and charismatic renewal. Ann Arbor, MI: Servant Books.
- Sweet, L. I. (1982). New life in the Spirit. Philadelphia, PA: Westminster.
- Tabachnick, B. G., & Fidell, L. S. (1989). Using multivariate statistics. New York: Harper Collins.
- Tatsuoka, M. M. (1971). Multivariate analysis: Techniques for educational and psychological research. New York: John Wiley & Sons.
- Thayer, J. H. (1979). The new Thayer's Greek-English lexicon of the New Testament. Peabody, MA: Hendrickson.
- Thomas, R. L. (1978). Understanding spiritual gifts: An exegetical study of 1 Corinthians 12-14. Chicago, IL: Moody Bible Institute.
- Thompson, B. (1984). Canonical correlation analysis: Uses and interpretation. Beverly Hills, CA: SAGE.
- Thurstone, L. L. (1931). Multiple factor analysis. Psychological Review, 38, 406-427.

- Tidwell, C. A. (1982). Educational ministry of a church. Nashville, TN: Broadman Press.
- Timpe, R. L. (1983, Fall). Epistemological and metaphysical limits to integration of psychology and theology. Journal of Psychology and Christianity, 2, 3.
- Titus, H. E. (1969). Prediction of supervisory success by use of standard psychological tests. Journal of Psychology, 72(1), 35-40.
- Trent, S. J. (1968). A study of the relationship of personality factors to academic achievement. (Doctoral dissertation, University of Tennessee, Knoxville, 1968). Dissertation Abstracts International, 29, 2129A.
- Tuckman, B. W. (1972). Conducting educational research. New York: Harcourt Brace Jovanovich.
- Turner, M. M. (1968). Personality factors for major students in health, physical education, and recreation. (Doctoral dissertation, University of Alabama, 1968). Dissertation Abstracts International, 29, 3861A.
- Unger, M. F. (1978). The baptism and gifts of the Holy Spirit. Chicago, IL: Moody Press.
- Van Leeuwen, M. S. (1985). The person in psychology. Grand Rapids, MI: Eerdmans.
- Vine, W. E. (1985). An expository dictionary of New Testament words. Nashville, TN: Thomas Nelson.
- Wagner, M. (1957). Seminararians' attitudes in personal counseling and their relation to selected personality traits. (Bachelor's thesis, Duns Scotus College, Detroit).
- Wagner, P. C. (1976). Your church can grow. Glendale, CA: Regal Books.
- Wagner, P. C. (1979). Your spiritual gifts can help your church grow. Glendale, CA: Regal Books.
- Wallenkampf, A. V. (1978). New by the spirit. Mountain View, CA: Pacific Press Publishing Association.

- Wallstrom, D. W. (1990). Role conflict and burnout in the ministry. (Doctoral dissertation, Fuller Theological Seminary, 1990). Dissertation Abstracts International, 51, 09B.
- Walter, J. I. (1968). A comparative-descriptive study of sixty incarcerated criminals utilizing the variables of personality as measured by the Sixteen Personality Factor Questionnaire, reading scores, age, time in prison and disciplinary actions. (Doctoral dissertation, Auburn University, 1968). Dissertation Abstract International, 29, 1114A.
- Walvoord, J. F. (1975). The Holy Spirit (3rd ed.). Grand Rapids, MI: Zondervan.
- Wholeben, B. E. (1985). Sixteen Personality Factor Questionnaire. In J. J. Keyser & R. C. Sweetland (Eds.), Test critiques (Vol. 4). Kansas City, MO: Test Corporation of America.
- Wierwille, V. P. (1972). Receiving the Holy Spirit today. New Knoxville, OH: American Christian Press.
- Williams, J. R. (1971). The era of the Spirit. Plainfield, NJ: Logos.
- Williams, J. R. (1990). Renewal theology: Salvation, the Holy Spirit, and Christian living. Grand Rapids, MI: Zondervan.
- Williams, R. C. (1968). Teacher personality factors as related to membership in teacher organization. High School Journal, 51, 165-172.
- Yohn, R. (1974). Discover your spiritual gift and use it. Wheaton, IL: Tyndale House.

VITA

Name: Soo Dong Choi
Place of birth: Seoul, Korea
Date of birth: August 14, 1957
Marital status: Married to Kyung Ja Choi
Children: Eun Jin Choi (Daughter, 7 years old)
Eun Suk Choi (Son, 3 years old)
Education: Korean Sahmyook University
1981 - Bachelor of Arts (Theology)
1983 - Master of Arts (Biblical Theology)
Andrews University
1993 - Doctor of Philosophy
(Religious Education)
Experience: 1982-83 - Bible Instructor
Korean Sahmyook University
1984-85 - Ministerial Intern
S D A Language Institute, Seoul, Korea
1986-88 - Licensed Minister, Head Chaplain
S D A Language Institute, Seoul, Korea
1989 - Ordained Minister, Church Pastor
S D A Language Institute, Seoul, Korea
1990-92 - Korean Student Advisor
Andrews University
Appointment: 1993 - Pastor, Incheon Central Church, West
Central Korean Conference