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Examining Values Through Aphorisms

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I am submitting herewith a thesis written by Lauriann L. Hebb entitled "Examining Values Through Aphorisms." I have examined the final electronic copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Arts, with a major in Psychology.

Warren H. Jones, Major Professor

We have read this thesis and recommend its acceptance:

Howard Pollio PhD, Lowell Gaertner PhD

Accepted for the Council:
<u>Carolyn R. Hodges</u>

Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)

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Lowell Gaertner, PhD

Accepted for the Council:

Anne Mayhew

Vice Provost and
Dean of Graduate Studies

(Original signatures are on file with official student records.)

Examining Values Through Aphorisms

A Thesis
Presented for the
Master of Arts Degree
The University of Tennessee, Knoxville

Lauriann L. Hebb

August, 2003

Dedication

This thesis is dedicated to my parents. Throughout my life you have always taught and encouraged me to reach for my dreams. By doing this, you have made me realize that I can achieve anything I strive for. You were never lacking in support or words of encouragement. It is because of you that I am who and where I am today. Mom and Dad, thank you.

Acknowledgements

There are several people whom I would like to thank for their contributions to this research. First, and foremost, I would like to thank Dr. Warren H. Jones. His guidance of this project has been invaluable. As an advisor he has encouraged as well as fostered my ideas and helped me grow as a researcher. I also extend gratitude to Dr. Howard Pollio and Dr. Lowell Gaertner for their suggestions and input that helped improve this project.

Abstract

Many psychologists agree that studying values is an important aspect of understanding human nature (Allport, Rokeach, etc.). In spite of this consensus, there is little collective research on the subject. This is due, in part, to variations in instruments.

Therefore, the purpose of the present research was to (a) assess the underlying structure of responses to a set of aphorisms, (b) to examine potential reasons for differential endorsement and (c) to explore the relationship between a set of aphorisms and traditional psychosocial measure of values as well as personality.

Study 1 included 928 participants, and the objective was to examine the structure underlying responses to a set of aphorisms (Laws of Life; LL). Classic psychometric tests yielded 5 factors: *Direction in life, Positivity, Self-Control, Reciprocity* and *Cognitive Determinism.*

Study 2 (n =258) focused on the explanation for differential endorsement rates. Results showed that the best predictor of endorsement rate was how relevant a particular item was to the participant.

Study 3 (n =193) compared the LL to other measures of values in an attempt to assess the extent of the relationship between this set of aphorisms and traditional psychological measures. Results indicated a moderate convergence between the LL factors and measures of values, with *Direction in life* showing to be the strongest and most extensively related factor.

The purpose of *Study 4* (N = 318) was to assess the relationship between the LL factors and relevant measures of personality. The five factors showed a degree of variability among the personality constructs. Again, *Direction in life* showed to be the

factor that showed the most convergence, whereas *Cognitive Determinism* showed no

reliable relation to any of the personality constructs.

This research attempted to examine an existing set of aphorisms and use this set in

order to provide insight about the nature of values. Results showed that these aphorisms

are related to both measures of values as well as measures of personality.

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CHAPTER 1: INTRODUCTION

Allport (1961) suggests the best way to understand human experience is to study values. He supports this claim by suggesting that realizing one's values is what motivates individuals in everyday activities. Rokeach (1968) argued that values should be a predominant area of research in social psychology. More specifically, he argued that values contain information regarding various aspects of experience including motivation, cognition, behavior and attitudes. Despite such theoretical statements and despite considerable research over the years there is little consensus regarding the role of values in human experience. One reason for this may be due to the heavy reliance on broad, ambiguous and philosophical terms (e.g. equality, freedom, happiness, etc.) as measures of values. The purpose of the present research is to explore the nature of values using stated aphorisms due to their presumably greater relevance to everyday expressions of purpose and meaning.

The term 'value' can refer to either a conception of something desirable (e.g. freedom, happiness) or the worth of an object or idea (*e.g.* a piece of jewelry has value). Over the past few decades, the literature on values has been in and out of the social psychological spotlight. Each variation has resulted in definitions that have similar underlying themes yet possess differences. Spranger (1928) defined the term value as an essence that is qualitatively determined, and the realization of a value in a material object (its worth). Allport's (1937) definition indicated that a value is a belief upon which a person acts by preference and is both cognitive and motoric in nature. Morris (1956) defined a value as either the preferred (operative values), a conception of the preferred (conceived values) or as the preferable (object values). Rokeach (1968) defined value as

a belief that transcendentally guides actions and judgments across specific situations and beyond immediate goals to ultimate end-states of existence. Whereas Allport and Rokeach's conceptions of values are psychological in nature, Spranger and Morris' definitions also include aspects beyond the psychological. This difference may stem from their disciplinary viewpoints. Spranger and Morris were both philosophers whereas both Allport and Rokeach were psychologists.

The History of Research on Values

Spranger (1928) proposed that there are six value types: theoretical, economic, aesthetic, social, political and religious. These six descriptions represent personality types or underlying motives. Spranger contends that each individual can be viewed as approximating one of these throughout his/her lifetime. He does not imply that people fit into only one type but rather that people may incorporate two or more of these types to varying degrees.

Allport, Vernon & Lindzey's (1931) Study of Values is based upon Spranger's six value types. The Study of Values is a personality inventory that was developed to ascertain the degree to which an individual actually subscribes to each of these value orientations. It has also been used extensively in the study of occupational choice and preference.

Rokeach (1968) is probably the most influential researcher in the area of values. His survey is widely used and is the basis for other instruments and theories (Schwartz and Bilsky, 1987). He divided values into two groups, instrumental and terminal. Instrumental values are those that guide conduct, leading an individual to choose

appropriate behaviors that are socially and personally acceptable (*e.g.* honest, cheerful, forgiving). He further divides this set into two sub-categories, moral values (honesty) and competence (intelligence) values. Terminal values are considered to be end-states of existence and are something to strive for. These are also divided into sub-categories, personal values (salvation) and social values (a world at peace). The Rokeach Value Survey (Rokeach, 1973) lists the instrumental values and terminal values separately and asks participants to rank each list in order of importance with respect to the guiding principles in their own lives.

Instrumental and terminal values are related. Rokeach postulated that everyone is concerned with the same values; it is the order in which they are organized that is associated with different behavior among individuals in the same situation. Values help govern behavior in making choices. When one encounters a situation where several values are challenged, it is highly unlikely that one would be able to behave in such a way that is true to all of one's values. A choice must be made, and according to Rokeach, the decision will be based upon the highest ranked value among those relevant to the situation. For example, a person who ranks 'honesty' above 'obedient' may turn in a supervisor who is stealing from the company, whereas someone who ranks 'obedient' higher may not. One critique of Rokeach is that his study had no theoretical basis. He chose the 18 instrumental values and 18 terminal values based upon his own values and values he felt should be important to other people. Even so, the Rokeach Value Survey has probably been the most commonly used value instrument over time.

Mitchell (1984) claims that by studying values, one can determine the future of society. Consumer research was Mitchell's research focus, and in his earlier research, he

incorporated theories such as Maslow's hierarchy of needs as the framework for characterizing human values. He revised this theory resulting in the development of his Value and Lifestyles (VALS) Typology. The VALS typology is comprised of four groups that are divided into nine lifestyles. Each lifestyle is a unique description of a way of life.

Schwartz & Bilsky (1987, 1990) developed a theory of value structure that incorporates previous theories and definitions. Their theory claims that values can be derived from three types of universal human requirements: (a) biological based needs of the organism, (b) social interaction requirements for interpersonal coordination and (c) social institutional demands for group welfare and survival. These three are preexisting and are important in order to cope with reality and to effectively belong to society. In developing their theory, these authors derived eight motivational domains that they claim are universal as well as distinctive; enjoyment, security, achievement, self-direction, restrictive conformity, prosocial, social power and maturity. Each domain includes examples of Rokeach's values to use as markers.

More Recent Research

Researchers have argued that studying values is an integral part in the understanding of certain aspects of human behavior such as attitudes (Braithwaite, 1998; Oishi, Schimmack, Diener, & Suh 1998), beliefs (Garling, Lindberg, Montgomery & Waara, 1985), motivational guides to action (Horley, 2000) and personality (Mitchell, 1989; Musek, 1990; Horley, 1991; Bilsky & Schwartz, 1994; Singh & Gupta, 1996). In addition, values have also been examined in cross-cultural comparisons (Chia, Wuensch,

Childers, Chuang, Cheng, Cesar-Romano & Nava, 1994), in terms of family values

(Christenson, 1977; McDermott, Robillard, Char, Hsu, Tseng & Ashton, 1984; Homer,

1993), gender differences (Musek, 1990), group performance (Schmader & Major, 1999),

religiosity (Goldscheider & Goldscheider, 1988), and value change (Rokeach, 1971;

Girija & Bhadra, 1986; Hoge & Hoge, 1992).

Despite this widespread agreement about the importance of values in various

aspects of human experience, the literature has been largely non-cumulative. For

example, more recent studies have focused on values in regard to the workplace as well

as consumer research. Some studies are so narrowly focused that the generalizabilty of

results appear severely limited.

Another reason the social psychological literature on values is so scattered is the

variations in instruments (e.g. Study of Values, Rokeach Value Survey, List of Values,

Values and Lifestyles Questionnaire) and methods (e.g. ratings, rankings, self-report,

etc.) used to assess values. For example, the traditional approach has been the Rokeach

Value Survey. This instrument lists two sets of 18 values and asks participants to rank

each set. Although this instrument has been the most widely used measure of values, it

has limitations. For example, the value of 'equality' can have multiple meanings. It can

mean that all individuals should be treated equally or that all individuals are created

equal. Thus, the value of equality is broad, somewhat vague and ambiguous.

Other efforts have employed the usage of familiar aphorisms or proverbs in order

to identify one's values. Page & Washington (1983) examined the relationship between

values and family proverbs among single black mothers. Proverbs are said to be an

appropriate method for assessing values especially those pertaining to affective world

views. Along with other measures, participants (N=100) were administered the Rokeach

Value Survey and the Family Proverbs Scale (Page & Washington, 1983). Analyses

showed a strong relationship between many of the FPS proverbs and Rokeach's

instrumental and terminal values. These results suggest that proverbs, as well as

traditional value concepts, are measurable aspects of a world view that are related.

In addition to exploring aphorisms and proverbs in conjunction with values, they

have also been used when studying other aspects of psychological experience. Arbet

(1976) studied the relationship between aphorisms and personality traits in adolescents.

Results indicated that aphorism preferences are associated with different personality

traits. Similarly, Rogow, Carey and Farrell (1957) studied differences between certain

groups with reference to both their usage of and agreement with certain aphorisms. Four

groups (university students, members of a women's service organization, members of a

men's service club and members of a trade union) were administered one of two lists of

aphorisms. The students and trade unionists were presented with a list of 81 aphorisms,

while the members of the service organizations were given a list of 34 aphorisms. Each

participant was asked to indicate the frequency with which they have heard others use

each aphorism, the frequency with which they have used it themselves as well as the

extent to which they agreed with it. Results indicated a strong correlation between usage

by others and self-usage as well as self-usage and agreement. There were some

differences found between the groups. For example, somewhat surprisingly, the trade

unionists reported using and hearing aphorisms more often then the other three groups.

These previous studies, although exploratory in nature, have led to some

significant and interesting results. In particular, they suggest that aphorisms may afford

the opportunity to assess and study values. Research shows that proverbs are similar to values in the sense that both are usually abstract and figurative, but they often differ in specificity of meaning. Therefore proverbs may represent a means of representing values that is less ambiguous and in a manner more consistent with how people express their worldviews in their everyday lives. The present series of studies will focus on a set of 200 "inspirational" aphorisms described by the person who compiled them as "The Laws of Life" (Templeton, 1994).

CHAPTER 2: STUDY 1

The Underlying Structure of the Laws of Life

The objective of study 1 was to examine the structure underlying responses to the Laws of Life presented in a questionnaire format.

 Study 1

Method

Participants

The sample consisted of 928 college students (71.4% female) who were recruited from undergraduate psychology courses and received nominal course credit for their participation.

Procedure and Measurement

Participants completed a questionnaire requesting demographic information and containing the Laws of Life (Templeton, 1994).

Laws of Life - The Laws of Life (LL) refer to 200 aphorisms and similar statements emphasizing ideals such as education, prayer, love, etc (Appendix A). Participants were asked to indicate the extent to which they agreed with each statement. The ratings are rendered on a 5-point Likert-type response format verbally anchored as follows: (1) strongly disagree, (2) disagree, (3) neutral (4) agree and (5) strongly agree.

Results

An exploratory factor analysis was performed in order to determine the underlying structure of the LL item pool and to reduce it for the purpose of subsequent

analyses. The principle component method with varimax rotation yielded five interpretable factors (each with three or more items) accounting for 27.87% of the total variance before rotation. Items with a factor loading of .40 or above were retained for subsequent consideration. Results indicated 47 items with a factor loading equal to or greater than .40. The following descriptive labels were applied to the factors: *Direction in life* (which could also been viewed as *Spirituality and Religious values*; 20 items), containing items emphasizing ideas of spirituality and prayer (*e.g.* "By prayer you receive spiritual energy"), *Positivity* (or *Embracing the unknown;*: 17 items), including items which represent optimism (*e.g.* "The journey of a thousand miles begins with the first step") *Self-control* (3 items), which consists of items that represent having control over one's life (*e.g.* You can build your own heaven or hell on earth"), *Reciprocity* (4 items), items that emphasize the linkage between giving and receiving, (*e.g.* "As you give, so shall you receive") and *Cognitive determinism* (3 items), items emphasizing belief in the power of thought (*e.g.* "Man is what he believes").   Appendix B shows each of the items and its corresponding factor loading.

Coefficient alpha was computed in order to estimate internal consistency for each of the five factors. Results indicated an alpha of .94 for the 47 items overall and .92 for *Direction in life*, .89 for *Positivity*, .66 for *Self-control*, .71 for *Reciprocity* and .58 for *Cognitive determinism*. Because coefficient alpha is sensitive to the number of items used, mean inter-item correlation is a better indicator of consistency among factors of discrepant size. For all 47 items, the mean inter-item correlation was .25. For the five factors the mean inter-item correlations were .38 (*Direction in Life*), .32 (*Positivity*), .41 (*Self-control*), .40 (*Reciprocity*), and .30 (*Cognitive determinism*).

Inter-factor correlations were computed to determine if the scales were related. Each of the five factors was significantly correlated with each of the other factors. Correlations ranged from .21 to .81 and are presented in Appendix C.

Exploratory analyses were conducted to determine if there were significant differences between genders in endorsement rate. Of the 200 original items, male and female participants differed significantly for 68.5% of the items. Of these, female respondents rated 97% of the items higher than did male respondents. Regarding gender differences among the factors, women endorsed the five LL factors more strongly than did men (Appendix A).

Discussion

The present study sought to examine the endorsement structure of the Laws of Life and to reduce the item pool on the basis of its major thematic components. Five factors emerged consisting of a total of 47 items. These factors were identified as *Direction in Life, Positivity, Self-control, Reciprocity and Cognitive determinism*. The emergence of these factors provides a mean for assessing these aphorisms as a whole. The factors showed both internal consistency as well as a significant association with each other. Female participants were more likely to endorse these sayings both at the level of the items as well as that of the factor.

CHAPTER 3: STUDY 2

Relationship Between Laws of Life Characteristics and Endorsement

The purpose of this study was to explore the covariation of selected characteristics of LL (*e.g.* understandability and ambiguity) as possible explanations for differential rates of endorsement.

Study 2

Method

Participants

The sample consisted of 258 college students (65 male and 193 female) who were recruited from undergraduate psychology courses and who received nominal course credit for their participation.

Procedure

The 200 LL were divided into 3 subsets, 2 sets of 60 items and 1 set of 65 items. The reason for creating the subsets was to prevent respondent fatigue. Participants were asked to render two types of ratings for each item. First, participants indicated their agreement with each of the statements, as in study 1. Second, participants rated each of the statements assigned to them on each of four relevant characteristics. After reading each statement, the participant was asked to rate it on a scale from 1 to 5 with respect to (a) understandability (do you understand the meaning of the statement); (b) ambiguity (is it subject to alternate interpretation); (c) personal relevance (do you think it is something you should live by); and (d) aesthetically pleasing (do you like the how the statement 'sounds').

Results

Based upon the previous analysis, the items comprising the five factors were the only items examined in this analysis. Each LL statement received a score for each of the four characteristics. Each item was then correlated with each of the characteristics of that particular item. The average correlations were then computed using Fisher's *r* to *z* transformation. Average correlations for each of the four characteristics compared to endorsement rate were as follows: .47 for relevance, .38 for aesthetically pleasing, .35 for understanding and .05 for ambiguity.

Discussion

This study sought to examine potential explanations of differential rates of endorsement. These results indicated that in general, how relevant a particular item was to a participant was the best indicator of whether or not it will be endorsed. The extent to which a particular item was viewed as understandable and aesthetically pleasing were also good predictors of endorsement rate. The level of ambiguity of a particular item was not a strong correlate of endorsement rate and was the only characteristic not significantly related to endorsement rate.

CHAPTER 4: STUDY 3

Convergence between Laws of Life and Other Measures of Values

The focus of the next phase was to compare the LL to existing measures of values. This served the purpose of assessing the extent to which specific aphorisms yield value assessments similar to traditional psychological measures.

Study 3

Method

Participants

The sample consisted of 193 college students (151 females, 42 males; mean age = 21.08) who were recruited from undergraduate psychology courses and received nominal course credit for their participation.

Procedure and Measures

Participants completed a questionnaire that consisted of the LL, the Study of Values, (Allport, Vernon and Lindzey, 1931), and the Rokeach Value Survey (Rokeach, 1968). The values measures were used to assess the validity of the LL as a measure of values. For example, the LL factors of direction in life were expected to be related to Rokeach's values of Salvation and Forgiving.

Study of Values (SV) The Study of Values (Allport, Vernon & Lindzey, 1931) is based upon Spranger's six value types. The six value types are Theoretical, interest lies in the pursuit of the truth, Economic, reflecting interest in what is useful, Aesthetic, placing value on form and harmony and the enjoyment of experience, Social, valuing the love of people, Political, reflecting the value of power, and Religious, valuing unity and

the highest value of mental life. The Study of Values is a measure that was developed to

determine the degree to which an individual subscribes to each of these value

orientations. The measure consists of 45 items. In part 1 (items 1 to 30), participants are

asked to choose between a set of controversial statements indicating which is more

appealing. Participants have three points in which to distribute among the two options.

If a participant agrees completely with statement "a" and disagrees completely with the

statement "b", they may give a score of 3 to "a" and a score of 0 to "b". If a participant

prefers "a" *slightly* over "b" then they may give a score of 2 to "a" and a score of 1 to

"b". Likewise, if a participant prefers "b" *slightly* over "a", they may give a score of 1 to

"a" and a score of 2 to "b". In part 2 (items 31 to 45), participants are asked to rank order

a set of four alternatives. After reading each option, the participant ranks each

alternative, giving a score of "4" to the one they agree with the most, a score of "3" to the

one they agree with second most, a score of "2" to the one they agree with next, and a

score of "1" to the choice they agree with least. After scores have been tabulated, each

participant receives a score for each value type, with higher scores indicating a stronger

degree of that type. Mean coefficient alpha for the six types combined is .90 and test-

retest reliability ranges from .84 to .93 over a period of two months. This scale has been

used extensively in the study of occupational choice and preference, counseling, and

other areas of research.

 Rokeach Value Survey (RVS). The Rokeach Value Survey (Rokeach, 1968)

measures the ordered preferences among two types of values, instrumental and terminal.

Instrumental values are defined as those that guide conduct, leading an individual to

choose appropriate behaviors that are socially and personally acceptable (e.g. honest,

cheerful, forgiving). Rokeach further divides this set into two sub-categories, moral values (honesty) and competence (intelligence) values. Terminal values are considered to be end-states of existence to strive for. These are also broken down into sub-categories, personal values (salvation) and social values (a world at peace). The Rokeach Value Survey lists the instrumental values and terminal values separately and alphabetically and asks participants to rank each list in order of importance with respect to the guiding principles in their own lives. Test retest reliability was reported to be.70 after seven weeks.

Results

Correlational analyses were conducted to examine the relationship between the factors derived from the LL and sub scores from both the SV the RVS. As shown in Table 1, *Direction in life* is the most extensively related factor to the SV scores. This factor was negatively related to Theoretical, Economic and Aesthetic, while being positively related to Religious. The only other factor to show convergence was *Self-control*. *Self-control* was positively related to SV Theoretical scores and negatively related to Religious scores.

Further analyses compared the relationship between the LL and Rokeach's 36 values. As shown in Appendix D, all LL factors except Reciprocity yielded at least some significant correlations with RVS items. *Direction in life* was positively related to the terminal values family security and salvation as well as the instrumental values forgiving, loving and obedient. *Positivity* was related positively to the terminal values family security, freedom and national security and inversely related to social

Table 1

Correlations between the 5 Laws of Life Factors and the Study of Values

	Direction	Positivity	Self-Control	Reciprocity	Cognitive Determinism
Theoretical	.31**	-.11	.17*	-.14	.04
Economic	-.15*	-.07	.05	-.02	-.02
Aesthetic	-.24**	-.01	.03	-.09	.07
Social	.03	.11	-.04	-.01	-.08
Political	-.12	-.11	.03	.06	.01
Religious	.61**	.12	-.17*	.11	-.01

*p < .05
**p < .01

recognition and the instrumental value self-control. *Self-control* was negatively related to the terminal value salvation as well as the instrumental value obedient. Also, *Self-control* showed a positive relationship with the instrumental values of cheerful, imaginative and intellectual. *Cognitive determinism* was positively related to the terminal values freedom and happiness as well as the instrumental value clean.

Discussion

The purpose of Study 3 was to explore and validate the LL as a measure of values. Results show the five LL factors showed some convergence with the SV and RVS, but the degree of convergence is perhaps best described as modest. *Direction in life* is most strongly related to the SV, having been significantly correlated with four of the six value types. Three of the 5 LL factors showed no significant relation to at least one of the value types.

Direction in life, Positivity, Self-control and *Cognitive determinism* all showed a relationship with at least 3 of Rokeach's values. However, only 10% of the total correlations were significant. One possible explanation for this is that the RVS uses single words to depict values. These words may be subject to differential interpretation and meanings among participants and may account for the general lack of association. Also, the RVS relies on rank ordering. Participants are forced to choose one value over another whereas the format selected for LL allows participants to endorse each item without regard to their endorsement for the next item.

CHAPTER 5: STUDY 4

Relationship between Laws of Life and Personality Measurements

The purpose of this study was to examine the association between selected dimensions of personality and LL endorsement rates.

<u>Study 4</u>

Method

Participants

Two samples were used for this study. The first sample consisted of 193 college students (151 females, 42 males; mean age = 21.08), and the second sample consisted of 125 college students (90 females, 35 males). Both sets of participants were recruited from undergraduate psychology courses and received nominal course credit for their participation.

Procedure and Measures

One group of participants (n = 125) filled out a questionnaire that was comprised of the LL and the Big Five Inventory (John, Donahue and Kentle, 1991). The other group of participants (n = 193) completed a questionnaire that included the Generalized Expectancy for Success Scale- Revised (Hale, Fiedler, & Cochran, 1993), the Belief in a Just World Scale (Rubin and Peplau, 1971), Radicalism-Conservatism (Comrey and Newmeyer, 1965 and the Dogmatism Scale (Rokeach, 1956). The personality measures were used to profile the personality typology of persons who endorse LL items. For example, are those who score higher on optimism more likely to endorse the LL than those who score low on optimism.

Big Five Inventory (BFI). The Big Five Inventory (John, Donahue and Kentle, 1991) is based upon the five-factor model of personality. The five factors are Extraversion, associated with energy, sociability and positive emotions, Agreeableness, associated with prosocial tendencies (e.g. altruism and trust), Conscientiousness, associated with goal-directed behaviors, Neuroticism, associated with anxiety, sadness and irritability, and Openness, describing the extensiveness of life. Participants rate each item on a 5 point scale (1 = disagree strongly, 5 = agree strongly). Reliability of each of the scales has ranged from .75 to .90. The BFI is highly correlated with other measures of the Five Factor Model.

Generalized Expectancy for Success Scale (GESS-R). The Generalized Expectancy for Success Scale-Revised was developed by Hale, Fiedler, and Cochran (1992) to examine level of optimism and in regard to expectations about future success. Each item begins with the phrase, "In the future I expect that I will…" and ends with some feeling about futuristic events (e.g., …"achieve all my goals"). The GESS-R consists of 24 items. Reliability and validity have been adequately demonstrated with the GESS-R. The split-half reliability is .92, and the revised version of the GESS-R is highly correlated with the original version of the GESS ($r = .98$). The GESS-R has also been positively correlated with other established measures, such as the Life Orientation Test and the Rosenberg Self-esteem Scale.

Belief in a Just World. The 20-item Belief in a Just World scale was developed by Rubin and Peplau (1971) to assess the extent to which an individual perceives that the world is a place where good people are rewarded and bad people are punished. Participants responded on a 6-point Likert-type scale to items that indicated statements

that were considered either just or unjust. Coefficient alpha for the scale has been reported to be .80, and scores on this scale have been shown to be correlated with scores on measures of authoritarianism ($r = .35$), trust ($r = .55$), church attendance($r = .42$), and locus of control ($r = -.44$).

Dogmatism. The dogmatism scale, developed by Rokeach (1956) assesses individuals' openness with respect to basic beliefs about life, society and religion system. The scale consists of 41 items for which participants are asked to rate the degree to which they agree with each statement. Responses are given on a 7-point Likert-type scale (1= strongly disagree and 7= strongly agree). Split half reliability was reported as .78 and .81 in previous research. The dogmatism scale has also been empirically related to authoritarianism and ethnocentrism (Rokeach, 1975).

Radicalism - Conservatism. This 30 item scale was developed by Comrey and Newmeyer (1965) and is a measure of sociopolitical attitudes. Conservatism is defined as accepting authority and the norms of society. Participants rate the degree to which they agree with each statement and responses are rendered on a 9-point Likert-type response format. After recoding certain items, scores are computed with higher scores indicating conservatism.

Results

Correlational analyses were utilized to determine if certain personality characteristics are associated with LL endorsement. As can be seen in Tables 2 and 3, *Direction in life* was most extensively related to the measures of personality.

Table 2

Correlations between the 5 Laws of Life Factors and the Big Five Inventory

	Direction	Positivity	Self-Control	Reciprocity	Cognitive Determinism
Extraversion	.35**	.35**	.05	.22*	.03
Agreeableness	.00	-.12	-.07	-.07	.00
Conscientious	-.05	-.10	-.03	.00	-.10
Neuroticism	-.13	.09	.19*	.07	.00
Openness	.28**	.33**	.16	.14	.13

*p < .05
**p < .01

Table 3

Correlations between the 5 Laws of Life Factors and other measures of personality

	Direction	Positivity	Self-Control	Reciprocity	Cognitive Determinism
Optimism	.23 **	.13	.07	.18*	.12
Conservatism	.43**	.04	.18*	-.13	.14
Dogmatism	.39**	.10	-.08	.13	-.08
Belief in a Just World	**-**.12	.06	.06	-.20**	.13

*p < .05
** p < .01

LL and the BFI

     Direction in life was positively related to extraversion (r (123) = .35, p < .01) and openness (r (123) = .28, p < .01). *Positivity* was also positively related to extraversion (r (123) = .35, p > .01) and openness (r (123) = .33, p < .01). *Self-control* was positively related to neuroticism (r (123) = .19, p < .05). *Reciprocity* was positively related to optimism (r (123) = .22, p < .01). *Cognitive determinism* was not related to any of the BFI factors. Exploratory gender analyses were also conducted on the personality scales. Female participants scored higher than male respondents on openness (t (123) = 2.392, p < .05). All remaining comparisons were non-significant.

LL and Other Measures of Personality

     Direction in life was positively related to optimism (r (191) = .23, p <.01) and dogmatism (r (191) = .39, p <.01) and negatively associated with conservatism (r (191) = -.43, p <.01). *Reciprocity* was positively related to optimism (r (191) = .18, p <.01) and inversely associated with a belief in a just world (r (191) = -.20, p <.01). *Self-control* was positively associated with conservatism (r (191) = .18, p <.05). *Cognitive determinism* was not reliably related to any of these measures of personality. Analyses were also conducted to determine if there were any gender differences associated with responses to these scales. The only significant finding was that male participants reported themselves to be more conservative than female respondents (t (190) = 2.23, p <.05).

Discussion

This study sought to examine personality characteristics of those that endorse the

LL. The 5 factors varied on how much they were related to measures of personality.

Direction in life was related to 56% of the constructs whereas *Cognitive determinism* was

not related to any of the personality constructs. *Direction in life*, which places emphasis

on religion and spirituality, was related to the constructs extraversion, openness,

optimism, conservatism and dogmatism. At first glance, these results may seem to be

contradictory and that openness and dogmatism are opposites. Taking a closer look at

how the constructs are defined, openness is the breadth and depth of one's mental and

experiential life, whereas dogmatism is defined as close-mindedness and dogmatic.

Keeping these definitions in mind, it is possible that those participants who endorsed the

items loading on *Direction in life* would also claim to emphasize a high level of openness

while at the same time wanting to change their beliefs (*i.e.* dogmatic openness). Many

people who claim to have a high sense of religiosity and spirituality are also very

committed to their beliefs. This gives helps to explain the association with dogmatism as

well as conservatism.

Reciprocity was the second most extensively related LL factor. It was related to

extraversion, optimism and negatively related to belief in a just world. Specifically

participants who endorsed items emphasizing giving and receiving had a favorable

outlook on life and did not believe that people necessarily get what they deserve.

Positivity was related to both extraversion and openness. These two personality

constructs are broader than that of Agreeableness, Conscientiousness and Neuroticism.

Positivity is also a broad factor, incorporating several ideas and values.

Self-control was related to neuroticism and conservatism. Specifically, respondents who were more likely to endorse items pertaining to self-control were more likely to show signs of being anxious, irritability (neuroticism), and were more accepting of the norms of society (conservatism). This suggests that those respondents who need control in their life tend to follow authority and are anxious about losing control, and if they do may become depressed.

Cognitive determinism was not related to any of the personality constructs. *Cognitive determinism* emphasized ideas of the power of thought. This theme appears to be independent of major dimensions of personality.

These data show that on one hand, the correlations between the 5 LL factors and the measures of personality are modest in nature. One the other hand, the magnitude of these correlations is meaningful and suggests some convergence and helps to further define the meaning of the LL factors. Finally, these results indicate that while the LL and the personality instruments are not measuring the same thing, they are related.

Chapter 6: General Discussion

This series of studies attempted to explore the nature of values using existing aphorisms. Specifically, a set of 200 aphorisms (LL) was introduced and examined in order to explore their utility as a measure of values. Study 1 focused on the investigation of the underlying endorsement structure of the LL. Specifically, the original item pool of 200 was reduced to 47 representing five factors: *Direction in life, Positivity, Self-control, Reciprocity* and *Cognitive determinism*.

Study 2 investigated possible explanations for differential endorsement among LL items. Four relevant characteristics were assessed: understandability, ambiguity, relevance, and aesthetically pleasing. Relevance, understanding and aesthetically pleasing all appeared to be good predictors of endorsement rate, whereas ambiguity did not. It is this last finding that is surprising. It was expected that those items that were perceived to be high on ambiguity would not be endorsed as highly. This was not the case, however. One explanation may be that because endorsement was given first, participants had to decide what each item meant. Once endorsement was given, perceived ambiguity became irrelevant.

Study 3 focused on the explanation of the LL as a measure of values. Convergent validity was supported as the LL factors were related to the SV and the RVS. *Direction in life* was the most extensively related. Specifically, it was related to 67% of the SV value types and 14% of Rokeach's values. Conversely, *Reciprocity* was not reliably related to either measure of values.

Finally, Study 4 further explored the meaning of endorsing LL factors by comparisons with dimensions of personality. Again, *Direction in life* was shown to be

the strongest and most extensively related factor, whereas *Cognitive determinism* yielded no association with the personality dimensions.

Direction in life related more extensively to both measures of values and personality than any other factor. Some reasons may be due to the greater number of items contained in this factor and that it accounts for the majority of the variance (19.19%). Examining the factor's content, perhaps this factor is a better representation of the LL as a whole. Templeton refers to these aphorisms and sayings as 'spiritual principles'. *Direction in life* is the factor which most closely resembles that description.

A surprising finding is the seemingly low association between *Positivity* and values and personality. *Positivity* was not found to be reliably related to any of the SV value types and was only related to two of the nine personality dimensions. This may be due in part to the nature of the factor. The items comprising *Positivity* were the most difficult to interpret as a factor. Rather than being comprised of a well-defined construct, this factor seems to incorporate more ideas than any other factor. Perhaps '*Positivity'* is not the best label for this set of items, and a different label would be a better description. Thus, the difficulty of labeling the factor may be reflective of its heterogeneity and hence its relative lack of association with comparative measures.

Examining gender differences, the most surprising finding is that women endorse the LL items to a greater extent than men.

Limitations and Suggestions for Further Research

Although this series of studies provided a useful foundation for conceptualizing aphorisms as values, there were some limitations to the methodologies and some areas for further investigation of the use of a set of aphorisms as a measure of values.

First, further examination of the LL is necessary. For example, *Positivity* may not be the best label for the items comprising that factor. Also, the factors were highly inter-correlated, which is inconsistent with the varimax rotation utilized in the factor analysis. Second, although the LL is correlated with the SV and RVS, incorporating alternate measures of values would give additional meaning to the LL. Both of these measures used in this study are older instruments. Perhaps incorporating more recent measures of values (*e.g.* Schwartz Value Inventory) would be appropriate.

Finally, the potential homogeneity of the sample should be noted. Each sample used was from a large southeastern university. Most participants did not differ demographically. The lack of variability among participants may have limited the variability across measures. This would also put limitations on the ability to generalize these results. A more varied sample in areas of age, ethnicity, religion, political preference, etc. would be a more diverse sample and more generalizable to the population.

Because everyone possess values, it is important to understand them. Previous research has suggested that aphorisms and values bear similarities and may provide a way to express values in everyday fashion (c.f. Page and Washington, 1983). Similarly, aphorisms have also shown be related to personality constructs (c.f. Arbet, 1976). The present study attempted to extend this line of inquiry. The factor analysis yielded five

primary factors. How relevant a particular item was to a participant was the best

predictor of endorsement rate. *Direction in life* is an internally reliable set of items

extensively related to both measures of personality as well as personality variables.

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Appendices

Appendix A

Templeton's Laws of Life

Templeton's Laws of Life

Number of Aphorism as appears in Templeton's Laws of Life	Avg. Endorsement	Factor	Gender Difference
1.	3.73		
2.	3.54		
3	3.93		Female
4.	4.49		
5	4.11	Reciprocity	Female
6.	3.61		
7.	3.71	Reciprocity	Female
8.	4.08		Female
9.	4.00	Direction in Life	Female
10.	3.90		Female
11.	3.34		
12.	4.29		Female
13.	4.17		
14.	3.46	Direction in Life	
15.	3.52		
16.	3.79		Female
17.	4.04		Female
18.	4.18	Direction in Life	Female
19.	3.32		
20.	3.86		
21.	4.10		Female
22.	3.56		
23.	3.54	Direction in Life	Female
24.	4.35		Female
25.	4.00		Female
26.	3.12		
27.	3.65		Female
28.	3.38		Female
29.	4.00		Female

Number of Aphorism	Avg. Endorsement	Factor	Gender Difference
30.	4.37		Female
31.	3.82		
32.	3.37		
33.	3.28		Female
34.	3.81		Female
35.	3.99	Direction in Life	Female
36.	4.15		Female
37.	3.70		Female
38.	3.69		
39.	3.95		
40.	3.26		
41.	3.44		
42.	3.00		
43.	3.71		
44.	3.38	Direction in Life	
45.	3.77		
46.	3.14		Female
47.	3.58		Female
48.	4.04	Direction in Life	Female
49.	4.08		Female
50.	3.56		Female
51.	3.84		
52.	4.19		Female
53.	4.42	Positivity	Female
54.	3.77	Cognitive Determinism	Female
55.	3.16		
56.	3.51		
57.	3.83		
58.	4.02		Female
59.	3.80		Male
60.	4.41		Female

Number of Aphorism	Avg. Endorsement	Factor	Gender Difference
61.	3.71		Female
62.	3.51		
63.	3.34		Female
64.	3.99		Female
65.	4.10		
66.	3.86		Female
67.	3.09		
68.	3.49		
69.	3.92		Female
70.	4.31		Female
71.	3.51	Direction in Life	Female
72.	4.22		
73.	3.32		Male
74.	3.70	Direction in Life	Female
75.	4.19		Female
76.	3.56		Female
77.	3.91		
78.	4.25		Female
79.	3.32		Female
80.	3.61		Female
81.	3.77	Reciprocity	Female
82.	3.98		Female
83.	3.48		Female
84.	3.49		
85.	4.23	Positivity	
86.	4.58	Positivity	Female
87.	4.07		Female
88.	4.01		Female
89.	3.75		Female
90.	3.78		Female
91.	3.47		
92.	4.10	Direction in Life	Female

Number of Aphorism	Avg. Endorsement	Factor	Gender Difference
93.	3.46		
94.	3.91		
95	3.34		Male
96.	3.91		Female
97.	4.12	Direction in Life	Female
98.	3.61		Female
99.	3.76		
100.	3.69		
101.	3.36		
102.	3.70		Female
103.	4.02	Direction in Life	Female
104.	3.83		Female
105.	4.00		Female
106.	3.44		Male
107.	3.79	Direction in Life	Female
108.	3.89		Female
109.	3.99		Female
110.	3.92		Female
111.	4.13		
112.	4.12	Positivity	Female
113.	3.90	Direction in Life	Female
114.	3.56		Female
115.	3.83		
116.	3.56		
117.	3.51		Female
118.	4.40	Positivity	Female
119.	4.25	Positivity	Female
120.	4.21		Female
121.	3.84	Direction in Life	Female
122.	3.92		Female
123.	4.33		Female
124.	4.07		Female

Number of Aphorism	Avg. Endorsement	Factor	Gender Difference
125.	4.16	Positivity	Female
126.	3.88	Cognitive Determinism	Female
127.	3.50		
128.	4.10		Female
129.	4.27	Positivity	Female
130.	3.55		
131.	3.92	Self-Control	Female
132.	3.92		Female
133.	3.73		Female
134.	3.90		
135.	3.30		
136.	3.28		
137.	4.08		Female
138.	4.01		Female
139.	3.91		Female
140.	3.76		Female
141.	3.87		Female
142.	2.97		
143.	3.30		
144.	3.79	Self-Control	Female
145.	3.65	Self-Control	
146.	3.52		Female
147.	3.73		Female
148.	3.81		
149.	3.75	Cognitive Determinism	Female
150.	3.98		Female
151.	3.98		Female
152.	3.81		
153.	3.90		Female
154.	4.04	Positivity	
155.	3.70		
156.	4.20		Female

Number of Aphorism	Avg. Endorsement	Factor	Gender Difference
157.	4.03		Female
158.	4.11		Female
159.	3.68		Female
160.	3.53		
161.	3.48		
162.	3.65		Female
163.	4.22	Positivity	Female
164.	3.56		Female
165.	3.79		Female
166.	3.82		
167.	3.18		
168.	3.28		
169.	3.49		
170.	4.15		Female
171.	3.95		Female
172.	3.84		
173.	3.83		Female
174.	3.87		Female
175.	4.18	Direction in Life	Female
176.	3.87		Female
177.	3.80		Female
178.	4.35	Positivity	Female
179.	3.66		
180.	4.11	Positivity	Female
181.	4.07	Positivity	Female
182.	4.32	Positivity	Female
183.	4.08	Positivity	Female
184.	3.83		
185.	3.91	Direction in Life	Female
186.	4.13	Positivity	Female
187.	3.67		
188.	3.97		Female

Number of Aphorism	Avg. Endorsement	Factor	Gender Difference
189.	3.77		
190.	4.18		Female
191.	3.69		
192.	3.89		Female
193.	3.39		Female
194.	3.95		Female
195.	3.70		Female
196.	4.17	Positivity	Female
197.	3.83	Reciprocity	Female
198.	3.85	Direction in Life	Female
199.	3.89	Direction in Life	Female
200.	3.62	Direction in Life	Female

Appendix B

Factor Loadings of the Laws of Life Factors

Factor Loadings for the Laws of Life Items Factor 1: Direction in Life

Aphorism		Factor Loading
35	By prayer you receive spiritual energy.	0.790
103	You have the most powerful weapons on earth—love and prayer.	0.763
74	More is wrought by prayer than this world dreams of.	0.758
198	Thanksgiving opens the door to spiritual growth.	0.693
23	The family that prays together stays together.	0.673
200	Every useful life is a ministry.	0.666
113	Thanksgiving leads to giving and forgiving, and to spiritual growth.	0.615
14	Humility leads to prayer as well as progress and brings you in tune with the Infinite.	0.583
44	Tithing often brings prosperity and honor.	0.581
18	Love thy neighbor as thyself.	0.574
92	Happiness comes from spiritual wealth, not material wealth.	0.574
185	Count your blessings every day and they will grow and multiply like well-tended plants.	0.528
121	Your prayers can be answered by "yes", but also by "no", and by "alternative".	0.515
107	As you are active, in blessing others, they find their burdens easier to bear.	0.513
175	It is more blessed to give than to receive.	0.507
48	Count your blessings and you will have an attitude of gratitude.	0.506
71	Humility, like darkness, reveals the heavenly light.	0.487
9	An attitude of gratitude creates blessings.	0.461
97	To err is human, to forgive is divine.	0.459
199	The more love we give, the more love we have left.	0.455

Factor Loadings for the Laws of Life Items Factor 2: Positivity

Aphorism		Factor Loading
182	The journey of a thousand miles begins with the first step.	0.627
85	You cannot discover new oceans until you have the courage to lose sight of the shore.	0.608
86	No one's education is ever complete.	0.586
178	Appearances are often deceiving.	0.584
183	The dark of night is not the end of the world.	0.575
180	Minds are like parachutes—they only function when they are open.	0.543
118	Little things mean a lot.	0.481
129	Give credit and help to all who have helped you.	0.479
119	To be upset over what you don't have is to waste what you do have.	0.475
163	If you think you know it all, you are less likely to learn more.	0.466
125	Help yourself by helping others.	0.449
154	Nothing is interesting if you are not interested.	0.435
181	You are more defined by what comes out of your mouth than by what goes in it.	0.424
186	You never really lose until you stop trying.	0.420
112	You are on the road to success if you realize that failure is only a detour.	0.418
53	The only way to have a friend is to be a friend.	0.418
196	Focus on where you want to go instead of where you have been.	0.413

Factor Loadings for the Laws of Life Items Factor 3: Self Control

Aphorism		Factor Loading
131	You can build your own heaven or hell on earth.	0.673
144	The mind can make a heaven into hell, or a hell into a heaven.	0.669
145	No man is free who is not master of himself.	0.516

Factor Loadings for the Laws of Life Items Factor 4: Reciprocity

Aphorism		Factor Loading
5	As you give, so shall you receive.	0.627
7	Love given is love received.	0.567
197	You get back what you give out.	0.492
81	We receive freely when we give freely.	0.417

Factor Loadings for the Laws of Life Items Factor 5: Cognitive Determinism

Aphorism		Factor Loading
54	Man is what he believes.	0.620
149	As you think, so you are.	0.436
126	You create your own reality.	0.412

Appendix C

Correlations between the 5 Laws of Life Factors

Correlations between the 5 Laws of Life Factors

	Direction	Positivity	Self-Control	Reciprocity	Cognitive Determinism
Direction		.83	.22	.83	.73
Positivity			.40	.70	.78
Self-Control				.21	.42
Reciprocity					.67

All correlations significant at the.01 level.

Appendix D

Correlations between the Laws of Life Factors and RVS

Correlations between 5 LL factors and Rokeach's Instrumental Values

	Direction	Positivity	Self-Control	Reciprocity	Cognitive Determinism
Ambitious	-.13	.01	.01	-.06	-.02
Broadminded	-.01	-.03	-.11	.00	.00
Capable	-.02	-.01	-.13	.03	.04
Cheerful	-.11	-.05	-.16*	-.10	-.05
Clean	.01	-.07	-.07	-.11	-.17*
Courageous	-.06	-.02	-.05	-.12	-.08
Forgiving	-.16*	-.14	-.06	-.09	-.11
Helpful	-.05	-.01	-.01	-.04	-.01
Honest	-.01	-.07	-.07	-.09	-.08
Imaginative	.10	-.02	-.19**	.08	-.13
Independent	.09	-.07	-.11	.00	-.13
Intellectual	-.01	-.03	-.21**	.01	-.10
Logical	-.04	-.05	-.05	.06	.03
Loving	-.18*	-.02	.11	-.02	.04
Obedient	-.20**	.01	.257**	.01	.14
Polite	-.07	-.08	.12	-.14	.14
Responsible	-.06	-.07	.04	-.03	.09
Self-controlled	.09	.18*	.10	-.02	.09

*$p < .05$,   ** $p < .01$ *Note: A negative correlation represents a positive association*

Correlations between 5 LL factors and Rokeach's Terminal Values

	Direction	Positivtiy	Self-Control	Reciprocity	Cognitive Determinism
A Comfortable Life	.10	.12	-.05	-.01	.05
An Exciting Life	.08	.01	-.11	-.01	-.04
A Sense of Accomplishment	-.03	-.02	-.04	-.01	.09
A World of Beauty	.09	-.07	-.05	-.02	-.06
A World at Peace	-.04	-.03	-.05	-.09	.00
Equality	-.02	-.12	-.09	-.03	-.02
Family Security	-.06*	-.05*	.03	-.10	-.01
Freedom	-.07	-.15*	-.10	-.06	-.15*
Happiness	.00	-.07	-.08	-.07	-.16*
Inner Harmony	-.11	-.09	-.10	-.07	-.14
Mature Love	-.09	-.02	-.07	-.04	-.02
National Security	-.13	-.17*	-.12	-.07	-.12
Pleasure	.01	.03	-.11	-.01	-.12
Salvation	-.47**	-.01	.17*	-.11	.02
Self-respect	.08	-.07	-.02	.04	-.04
Social Recognition	.09	.18*	.00	.03	.07
True Friendship	-.03	-.12	-.03	.07	.03
Wisdom	-.08	-.05	-.06	-.07	-.04

*p < .05,   **p < .01   *Note: A negative correlation represents a positive association*

Vita

Lauriann Lowe Hebb was born May 8, 1978, in Point Pleasant, NJ, to Michael and Lorraine Lowe. Lauriann graduated with honors from John Carroll High School in 1996. From there, she went on to Palm Beach Atlantic College to graduate with her B.S. in Psychology in 1999. Lauriann was accepted to the Doctoral program at the University of Tennessee in 2000. In June of 2002, Lauriann married James Hebb, Jr, and the couple currently resides in Knoxville. Lauriann is currently pursuing her doctoral degree at UT.