

A COMPARATIVE STUDY OF MANIFEST ANXIETY AS IT RELATES  
TO A PREFERENCE FOR RELIGION OR PHILOSOPHY OF LIFE

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A Thesis  
Presented to  
the Department of Psychology  
Kansas State Teachers College of Emporia

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In Partial Fulfillment  
of the Requirements for the Degree  
Master of Science

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December 1973

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## Chapter 1

### INTRODUCTION

The prominent use of the term "generation gap" reflects the widespread nonconforming trend of today's youth and their way of looking at things differently than their parents do. Their search for values and corresponding "ways of life" different from their parents' may be seen in one form by the popularity of various disciplines of meditation as well as drug induced attempts at "mind or consciousness expansion" in an attempt to "get better heads."

Assuming that their pursuit of more individual or nonconforming life styles is in fact one portion of a general "pursuit of happiness" it may be possible to verify if in fact any particular philosophy more than another can be associated with a general feeling of happiness. However, the term happiness is subjective. The obvious measurement technique of asking individuals to rate their level of happiness has the drawback of not yielding comparable results. For what one person might regard as a feeling of happiness another might consider boredom.

If happiness is interpreted, as the phrase "better head" implies, as a feeling resulting from a low anxiety state, by dividing individuals according to the various

religions or philosophies of life to which they subscribe and comparing the manifest anxiety of these groups, an attempt can be made to verify if particular philosophies can be associated with lower anxiety states reflective of happiness.

This has been attempted by Funk who found manifest anxiety unrelated to a belief in a philosophy of life instead of a religion.<sup>1</sup> But Lynn found different levels of anxiety for people of different races and nationalities.<sup>2</sup>

### THE PROBLEM

There could be as many individual philosophies of life or codes of ethics as there are people to invent or develop them; and, the traditional organized religions subscribed to by the majority are numerous enough to make their study an overwhelming task. However, considering that the approaches of young people lean toward individuality in their move away from the more traditional religions of their parents, it seemed appropriate for the purposes of this study to divide the philosophies accordingly.

The present study divided subjects into three groups: religious subjects, subjects with a philosophy of life or code of ethics, and subjects who subscribe to neither a

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<sup>1</sup>R. A. Funk, "A Survey of Religious Attitudes and Manifest Anxiety in a College Population" (unpublished Doctor's dissertation, Purdue University, 1955), pp. 69-71.

<sup>2</sup>R. Lynn, "National and Racial Differences in Anxiety," Mankind Quarterly, XI (1971), 205-14.

religion nor philosophy of life. The manifest anxiety of these groups was compared to determine if belief in either a philosophy of life or a religion was associated with a lower anxiety state indicative of a "happier" state.

#### Statement of the Problem

Is there a significant difference in manifest anxiety level between those individuals professing religious belief as opposed to those individuals professing belief in a philosophy of life?

#### Statement of the Hypothesis

There is no significant difference in anxiety level between those who express a preference for religion as compared with those who prefer a philosophy of life.

#### Purpose of the Study

The purpose of this study was to ascertain if a significant relationship existed between manifest anxiety and a preference for religion or philosophy of life in a college population. The subjects were divided into groups corresponding to three response categories of a "religious attitude" questionnaire. The Taylor Manifest Anxiety Scale was administered to all subjects. Finally, the means of the manifest anxiety scores for each group were compared by analysis of variance to test for a significant difference between the groups to determine if inclusion in any of the groups was associated with a low level of manifest anxiety.



## Significance of the Study

If a relatively low level of manifest anxiety is indicative of a general feeling of happiness, the determination of a relationship between manifest anxiety and a preference for a religion or a philosophy of life might give legitimate direction to those who are searching in the "pursuit of happiness." If on the other hand, no significant relationship exists between anxiety and one's philosophic approach to life, those who reject the traditional values in favor of individual philosophies as a means toward lower anxiety might avoid the inevitable fruitlessness and direct their search for lower anxiety from religious philosophy to a more appropriate area.

## DEFINITION OF TERMS

It is difficult to distinguish what constitutes a religion and what differentiates it from a philosophy of life or a code of ethics. There may be an overlap in these categories. Religions are, of course, philosophies. Two people may believe in the same philosophy of life but the manner in which they put their beliefs into practice may cause one to be thought of as religious and the other philosophical. The following definitions will serve to clarify these and other variables as they were used in this study.

### Manifest Anxiety

Manifest anxiety was defined as the score derived from the administration of the Taylor Manifest Anxiety Scale

(MAS), or the mean of the MAS scores for a group of subjects.

### Religion

Religion was defined as those beliefs that propone the ideal relationships among individuals, their environment, and a supernatural being or equivalent: characterized by group subscription to a set manner of practice. Subjects who designated themselves to be included in this religious group by their selection of an equivalently worded religious attitude category were called "religious."

### Philosophy of Life

Philosophy of life was defined as those beliefs which guide an individual toward a consistent mode of interaction with his environment characterized by independence (though not necessarily uniqueness) of action. Subjects who designated themselves to be included in this philosophical group by their selection of an equivalently worded religious attitude category were called "philosophical."

### Uncommitted

Subjects who did not choose either the religious or philosophical categories were called "uncommitted."

## LIMITATIONS OF THE STUDY

The phase of the investigation involving the collection and analysis of data was expected to encompass a period of about four weeks.

The subjects were selected from the senior class at the Kansas State Teachers College of Emporia. It was assumed that seniors may have had more time than lower class members away from the influence of their parents' homes to develop their own religious attitudes and anxieties. It was also assumed that these seniors will be representative of all Kansas students of that age as the school draws its enrollment almost uniformly from the state.<sup>3</sup>

The college is located in the midwestern United States, an area which is reputed to be decidedly "conservative." However, analysis of the latest election returns for the state indicate that a very large percentage of voters split their ballots between the major parties which might be viewed as indicating this conservative trend is changing. Regardless, the results may not be representative of more liberal areas, different age groups, or non-college populations.

Although the Taylor Manifest Anxiety Scale has been criticized as having nonfunctioning items and producing sex differentiated scores, it has been proven to be a good instrument to measure manifest anxiety and was not modified. Also, the subjects were not differentiated according to sex.

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<sup>3</sup>The 1970-71 Annual Report of the Office of Admissions and Records of the Kansas State Teachers College; Emporia, Kansas, November 1, 1971; Report c-12.

The present study divided all religions and philosophies into two broad groups. If each of the various religions and philosophies are associated with different levels of anxiety, some of the philosophies within each of the broad religious and philosophical groups might have contributed higher scores while others contributed lower scores. These intra-group differences, when averaged, might have resulted in mean anxiety scores for the religious and philosophical groups which did not differ significantly.

## Chapter 2

### REVIEW OF RELATED LITERATURE

The psychological literature reveals that many researchers are interested in the relationship of religious ideals to psychological adjustment. The consensus seems to view religious belief as developing out of man's existential anxieties and corresponding feelings of guilt. While a good case can be made for both religion and philosophy of life as integrating factors, many believe that "organized religion" is innate. Very little research, however, relates directly to whether or not there is a significant difference in manifest anxiety level between individuals professing religious belief as opposed to individuals professing belief in a philosophy of life.

### DEVELOPMENT OF RELIGIOUS BELIEF

The mechanisms of religious development have received much attention. Anxiety and guilt may produce incongruity and a need for a belief system to integrate reality into a whole. However, social influences may be responsible for the development of these beliefs. The trend toward secularization gives an indication of how the general population views this controversy.

## Guilt and Anxiety

Though the viewpoint of Frankel presents a pessimistic outlook on life, it represents the great extent to which anxiety may influence an individual's thinking. He maintained, "Anyone who thinks that anxiety is good for the human soul should be quite content with the world as it is."<sup>4</sup> Further, Frankel felt that in our "age of Anxiety" there are substantial causes for anxiety, many of which remain unmet because they are blanketed in a larger more encompassing anxiety which many appear to cultivate and to love. This is the feeling that "the cards are simply stacked against us, that the universe is such that our knowledge and our powers must inevitably be on one side and our hopes and ideals on the other," that the world as it exists and as it is likely to be is not a world in which the ideals of liberal culture or of humanity and freedom have any significant place.<sup>5</sup> It is a feeling of general alienation, of not belonging, a tired disenchanted conviction that even if solutions could be found for these problems they would be dreary and inhuman solutions because they would have to make peace with a dreary and inhuman world.<sup>6</sup>

This commentary on existential anxiety reflects the feelings of some individuals who are aware of the drift

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<sup>4</sup>Charles Frankel, The Love of Anxiety and Other Essays (New York: Delta, 1967), pp. 74-75.

<sup>5</sup>Ibid.

<sup>6</sup>Ibid.

between technology and humanity. There is a tendency to use guilt to alleviate this anxiety, as noted by Tillich among others.

It is not a distortion, but the expression of man's basic nature to be anxious or, in other words, to be aware of one's finitude.

In man's anxiety. . .there is always an intensifying element, the feeling of guilt.<sup>7</sup>

Waldman believed that the conditions of existence that urge man toward the state of sin are the very ones that prompt him to engage in neurotic conduct. More specifically, in a sense neurotic ways represent ill-fated attempts to resolve the problem of sin. Social forces tend to make man aware of his powerlessness, isolation and loss of meaning. Realizing the source of power lies beyond his grasp, man proceeds to establish himself independently. The more man devotes himself to his personal existence and needs, the more aware he becomes of his insignificance in relation to the universe. In this condition he becomes more vulnerable to the existential anxieties of guilt, death and meaninglessness. This is the state of sin.<sup>8</sup>

According to Kierkegaard with guilt and its implication of personal responsibility the individual commands a certain degree of control over his milieu.

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<sup>7</sup>Paul Tillich, "What is Basic in Human Nature," Amer. J. Psychoanal., XXII, 2 (1962), 121.

<sup>8</sup>Roy D. Waldman, "The Sin-neurotic Complex: Perspectives in Religion and Psychiatry," Psychoanal. Rev., LVII, 1 (1970), 143-46.

Unfortunately the guilt which alleviates existential anxiety does not respond to punitive measures because the individual's feelings of wrongdoing have little or nothing to do with a real transgression but stem from other sources.<sup>9</sup>

So great is the need to diminish existential anxiety that one may resort to an explanation that, in effect, makes one man suffer for another man's crimes as in the concept of "original sin," or to find someone who will accept the punishment in lieu of one's self as Christ in Christianity.<sup>10</sup> From a psychological point of view the self must seek to synthesize its experiences so that some meaning is given to life. Otherwise one cannot be said to be adjusted to life, since he has never come to terms with what has been called the riddle of the world, the "whole" which philosophers call reality. Thus, some form of religious belief would seem to be a functional necessity.<sup>11</sup>

To verify that guilt and anxiety were integrally related in this philosophical context, Lowe studied seventy psychiatric patients and one hundred forty male and female

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<sup>9</sup>W. Lowrie (trans.), The Concept of Dread, by S. Kierkegaard (Princeton, N. J.: Princeton University Press, 1944), p. 42, cited by Richard A. Gardner, "The use of Guilt as a Defense Against Anxiety," Psychoanalytic Review, LVII, 1 (1970), p. 124.

<sup>10</sup>Richard A. Gardner, "The use of Guilt as a Defense Against Anxiety," Psychoanalytic Review, LVII, 1 (1970), pp. 133-34.

<sup>11</sup>Alberta Trew, "The Religious Factor in Mental Illness," Pastoral Psychology, XXII, 214 (1971), p. 22.



psychiatric aides at a Veterans Administration hospital. Lowe found a correlation between a guilt scale selected from Minnesota Multiphasic Personality Inventory items (MMPI) and the Taylor MAS significantly higher than correlations of the Taylor scale with the Freeman Manifest Anxiety Scale. Lowe interpreted his results as showing:

. . . self report measures of anxiety and guilt comprise the same psychological entity, whatever that construct should be called. Guilt and anxiety, as measured by self-report scales, are thus seen to be equivalent and the commonly held distinction between the two terms is held to lie more in the mind of the beholder than in the mind of the beheld.<sup>12</sup>

By their equivalence of guilt and anxiety, the previous researchers have implied a link between one's religious perspective and anxiety. That these same factors contribute to religious conversion was demonstrated by Clark and Roberts who found that feelings of guilt were experienced by 50 percent of those individuals questioned prior to their conversion as compared to less than 10 percent in the general population.<sup>13</sup>

Following this line Spellman et al. administered the MAS to sixty men and women who were classified as religious, nonreligious, and sudden converts. They suggested that "a

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<sup>12</sup>C. Marshall Lowe, "The Equivalence of Guilt and Anxiety as Psychological Constructs," Journal of Consulting Psychology, XXVIII, 6 (1964), 554.

<sup>13</sup>E. T. Clark, The Psychology of Religious Awakening (New York: Macmillan, 1929), p. 73; see also F. J. Roberts, "Some Psychological Factors in Religious Conversion," Brit. Jour. of Soc. and Clin. Psych., IV (1965), 185-87.

reasonable interpretation of the results would be that the higher MAS scores for the sudden converts reflects their higher levels of anxiety and are perhaps indicative of a less well-adjusted state of being."<sup>14</sup>

### Social Influences

Though religion relieves existential anxiety, some writers argue that a philosophy of life may serve the same function. In the words of Beres:

. . . there have been men, and we do not need to go far to find them, who have evidenced a high level of morality without religious beliefs, without invoking superhuman powers. It is an evasion to say of such men that despite their denials they are inwardly religious.<sup>15</sup>

Cline and Richards claimed:

. . . the irreligious in our sample are nearly as frequently rated as being a good Samaritan, having love and compassion for their fellow man, and being humble as the most devout and religious of our group studied. Or to put it another way, there are a lot of devout, religious, churchgoing "non-Christians" in the sample studied.<sup>16</sup>

Extending this point of view, authors claim religion arose out of man's need for it and is maintained through socialization.

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<sup>14</sup>Charles M. Spellman et al., "Manifest Anxiety as a Contributing Factor in Religious Conversion," Jour. of Cons. and Clin. Psych., XXXVI (April, 1971), 247.

<sup>15</sup>David Beres, "Psychoanalytic Notes on the History of Morality," J. Amer. Psychoanal. Ass., XIII, 1 (1965), 33.

<sup>16</sup>v. B. Cline and J. M. Richards, Jr., "A Factor-analytic Study of Religious Belief and Behavior," J. Personal. Soc. Psychol., I, 6 (1965), 577.

According to Loomba early childhood is not characterized by any native, necessary or intuitive religious ideas or by any holy innocence peculiarly favorable to religion. Nevertheless, faced with varied experiences of wonder and mystery and of alive but strange voices and unseen powers, the mind of the two to three year old child spontaneously raises questions to locate and identify some super-physical power responsible for everything around. Gradually, the immense powers of heredity, traditions, family environment, suggestion and the child's characteristic propensity to imitation come into play, and this being gets the name of God with its equivalents and incarnational versions.<sup>17</sup>

Speaking of this development of religious concepts Freud stated:

. . . that primal father has been the prototype of God, the model after which later generations have formed their figure of God.

. . . . .

. . . The stock of religious ideas contains not only wish-fulfillments, but also important historical memories . . . . Thus religion would be the universal obsessional neurosis of humanity. It, like the child's, originated in the Oedipus complex, the relation to the father.<sup>18</sup>

If the assumption is correct that some of the basic instinctual drives which motivate man must be renounced and others sublimated in order to make social living possible,

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<sup>17</sup>Ram M. Loomba, "A Psychogenetic Approach to Religion, Atheism and Bigotry," Relig. Educ., LXI, 6 (1966), 449.

<sup>18</sup>S. Freud, The Future of an Illusion, trans. W. D. Robson-Scott (London: H. Liveright and The Institute of Psychoanalysis, 1928), pp. 74-76.

morality, once achieved, will not be passed on by biological inheritance, but must be achieved anew in every person.<sup>19</sup>

The biological evolutionary viewpoint insists that this individual recapitulation of the stupendous adaptation in the ego function of our species during our social evolution imposes immense demands.

. . . the initial socialization to the idea of God does nothing but propose a rival to the deified parents. Yet if the idea of God is not presented as divinity (all-powerful and all-knowing), the child will adhere to his own ideas and humanize God. This, it seems, is a mandate to socialize the child to the God-concept as divinity and this mandate would be carried out through religious instruction.<sup>20</sup>

But religion, if only as an act of belonging to a group, may be a factor in the reduction of anxiety. Lindt and Pennal suggested that children and adults are apt to turn to group membership at various stages in their lives to satisfy emotional needs. Belonging to such a group tends to reinforce the individual's mechanism of defense against anxiety. The individual has effectively used the group to control the reality around him.<sup>21</sup>

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<sup>19</sup>Beres, loc cit.

<sup>20</sup>Jean Piaget, The Child's Conception of the World, trans. Joan and Andrew Tomlinson (Totowa, New Jersey: Littlefield, Adams and Company, 1965), p. 381, cited by Robert Williams, "A Theory of God-concept Readiness: From the Piagetian Theories of Child Artificialism and the Origin of Religious Feeling in Children," Relig. Educ., LXVI, 1 (1971), 42.

<sup>21</sup>H. Lindt and H. A. Pennal, "On the Defensive Quality of Groups: A Commentary on the Use of the Group as a Tool to Control Reality," Int. J. group Psychother., XII, 2 (1962), 178.

Brown and Pallant obtained measures of religious belief from adolescents under conditions of positive and negative social pressure. Positive pressure produced a significant change in stated beliefs towards an expert's opinion, showing that religious beliefs are susceptible to social influences as are attitudes and opinions.<sup>22</sup> Brown, in a related study, concluded, "that religious belief is a relatively isolated cognitive system requiring strong maintenance. He also found strong evidence that religious belief has as its best correlations institutionalization and denomination."<sup>23</sup>

In a study by Lunneborg to determine how a social desirability response set influenced children, social desirability was found to be moderately and negatively correlated with anxiety.<sup>24</sup>

One conclusion which might be drawn from the above studies of social influences is that to believe in what others believe is a source of anxiety reduction, while to have faith in an unpopular belief may give rise to additional anxiety.

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<sup>22</sup>L. B. Brown and D. J. Pallant, "Religious Belief and Social Pressure," Psychol. Rep., 10:813, 1962.

<sup>23</sup>L. B. Brown, "A Study of Religious Belief," Brit. J. Psychol., LIII, 3 (1962), 259.

<sup>24</sup>p. Lunneborg, "The Relationship Between Social Desirability Response Set and Anxiety Measures in Children" (unpublished Doctor's dissertation, University of Texas, 1962), p. 42.

Siegmán explored another aspect of the relationship between anxiety and socialization. He found that introversion-extroversion was a significant source of variance in subjects' religious behavior. He tested two hundred five subjects to verify, as did many other studies, Eysenck's hypothesis that introverts condition more easily than extroverts. Consequently, introverts should be more thoroughly socialized than extroverts. According to this view, socialized behavior in the adult has as its basis anxiety and fear responses to anti-social acts conditioned in childhood and cohering together by stimulus generalization (aided by verbal identification).<sup>25</sup> According to Eysenck there should be a negative correlation between extroversion and religiosity because extroverts are more difficult to socialize and because religiosity reflects successful socialization.<sup>26</sup>

### Internal Influences

Not to yield to the conformity pressure to be religious would produce anxiety. However, Blakey tested students from a religiously conservative denomination and attending a denominationally controlled college. He used a combined scale of Wilson and Feagin to measure extrinsic

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<sup>25</sup>A. W. Siegmán, "A Cross-cultural Investigation of the Relationship Between Introversion-Extroversion, Social Attitudes and Anti-social Behavior," Brit. J. Soc. Clin. Psychol., II, 3 (1963), 197.

<sup>26</sup>H. J. Eysenck, Psychology of Politics (London: Routledge and Kegan Paul, 1954), p. 201.

religious value. These students apparently held their religious values for internal personal worth rather than for conforming, social reasons.<sup>27</sup>

Proponents of religion argue that it is not just another means of alleviating existential anxiety but part of mans' nature. Anderson believed:

. . . Man does not search for relationship with the cosmos; the cosmos have already claimed him, for he is a part of it. In Christian terms, I am saying that we do not have to search for God; God has already claimed us as his own.<sup>28</sup>

To quote Jung:

Religious experience is absolute. You can only say that you have never had such an experience and your opponent will say: "Sorry I have." And there your discussion will come to an end. No matter what the world thinks about religious experience, the one who has it possesses the great treasure of a thing that has provided him with the source of life, meaning and beauty, and that has given a new splendour to the world and mankind.<sup>29</sup>

### Changing Trends

Though the controversy over whether or not religion is innate will probably not soon be resolved, the work of Hartnett and Peterson gives evidence that some individuals

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<sup>27</sup>James Blakey, "Relationships Among Measures of Perceptual Rigidity and Aspects of Religion," Dissert. Abstr., 31:1066, September, 1970.

<sup>28</sup>George C. Anderson, "Maturing Religion," Pastoral Psychol., XXII (April, 1971), 20.

<sup>29</sup>C. G. Jung, Religion and Psychology (New Haven: Yale University, 1938), cited by Alberta Trew, "The Religious Factor in Mental Illness," Pastoral Psychol., XXII (May, 1971), 26.

are changing their religious views. In addition, they also saw many indications of advancing secularization throughout the fabric of American society.<sup>30</sup>

In a pioneering investigation of changes in religious beliefs and practices in college, Katz and Allport found that the majority of students, extreme atheists or those who perceived God as an intelligent being, did not change their religious beliefs. However, those who perceived God as a personal and powerful ruler of the universe experienced a change in the direction of liberalism and unorthodoxy.<sup>31</sup>

Young et al., in a longitudinal study based on Holtzman's R-Scale, found that the attitude toward organized religion had become more favorable during the period between 1955 and 1964.<sup>32</sup> Speaking of this trend Cline and Richards suggested:

. . . becoming "unconverted" or rejecting the religion of one's youth . . . is characterized by a tendency to view one's religion from a "theoretical or philosophical point of view" rather than by "faith." This coincides with doubt and inner conflict, considerable guilt, and an increasingly rejecting

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<sup>30</sup>R. T. Hartnett and R. E. Peterson, "Religious Preference as a Factor in Attitudinal and Background Differences Among College Freshmen," Sociol. of Educ., XLI, 2 (1968), 237.

<sup>31</sup>D. Katz and F. H. Allport, Students Attitudes (Syracuse: Craftsman Press, 1931), p. 301.

<sup>32</sup>R. K. Young et al., "Change in Attitude Toward Religion in a Southern University," Psychol. Rep., XVIII, 1 (1966), 41.



attitude toward a "literal interpretation" of the scriptures. Finally there is a pragmatic demand for tangible absolute proof for the religionists' claims, which when not met leads to further estrangement and loss of faith but not without some inner turmoil.<sup>33</sup>

#### PERSONALITY DIFFERENCES BY BELIEF

Studies do show some differences between the religious and nonreligious individual. For instance, the work of Meredith with two hundred eighty-two male and female psychology students portrays the religious person as more conservative, i.e., less likely to break the crust of custom and tradition.<sup>34</sup> Keene, in his study of factors of religious behavior, described the main distinction between those who are and are not formally affiliated with an old established religion. Nonaffiliates generally tend to be world-minded, as opposed to nationalistic, and self accommodating, referring to an individualistic orientation related to freedom, social independence and self sufficiency.<sup>35</sup>

Brown, in a 1966 study of two hundred twenty-seven Australian college students, also attempted to divide religious belief into its component factors. "The factor analysis

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<sup>33</sup>V. B. Cline and J. M. Richards, Jr., "A Factor-analytic Study of Religious Belief and Behavior," J. Personal. Soc. Psychol., I, 6 (1965), 576.

<sup>34</sup>Gerald M. Meredith, "Personality Correlates to Religious Belief Systems," Psychol. Rep., XXIII, 3 part 2 (1968), 1041.

<sup>35</sup>James J. Keene, "Religious Behavior and Neuroticism, Spontaneity, and Worldmindedness," Sociometry, XXX, 2 (1967), 145-56.

shows that the measures of religious belief, and reported religious behavior and experience, are described by a single factor". Another factor covers the rigidity-intolerance variables including political measures such as institutionalization.<sup>36</sup> It is church membership, attitudinal acceptance of the church, and a tendency to certainty or authoritarianism that is related to the strength of religious belief.<sup>37</sup> Brown interpreted his results as evidence suggesting that:

. . . religion can best be described in psychological terms as a system of beliefs maintained and transmitted by a church, through which experience may be interpreted and controlled. Religious beliefs are accepted by individuals primarily as a result of the social influences to which they have been subjected, while the significant religious beliefs that people assent to are more closely connected with general interpretations of the world than with specific hopes or anticipations.<sup>38</sup>

### Dogmatism

In addition to these studies of differences in personality measures ascribed to religious belief, there have been studies which indirectly link religious variables to anxiety. According to Rokeach ". . . the dogmatism scale . . . would seem to be more than just a measure of individual differences in authoritarianism."<sup>39</sup> He considered

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<sup>36</sup>L. B. Brown, "The Structure of Religious Belief," J. Sci. Stud. of Relig., V, 1 (1966), 265.

<sup>37</sup>Ibid., pp. 268-69.

<sup>38</sup>Ibid., p. 270.

<sup>39</sup>M. Rokeach, The Open and Closed Mind (New York: Basic Books, 1960), p. 397.

it to be ". . . first and foremost a measure of the extent to which the total mind is an open mind or a closed one."<sup>40</sup>

Rokeach accounted for this difference by assuming that ". . . an enduring state of threat in the personality is one condition giving rise to closed belief systems."<sup>41</sup> It is this enduring state of threat factor in the dogmatism scale which may be called anxiety.

Lampl has found a positive relationship between dogmatism and manifest anxiety.<sup>42</sup> In addition, dogmatism and anxiety were found in two factor analytic studies to merge into a single psychological factor.<sup>43</sup>

The relationship of dogmatism and anxiety becomes relevant when put into the context of the relationship of dogmatism with religiosity. According to Di Giuseppe not only denomination but strength of religious conviction correlate with dogmatism. The results from fifty subjects on the basis of Rokeach's D-Scale and a religious questionnaire indicated the more meaningful or important religion is to

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<sup>40</sup>Ibid., p. 403.

<sup>41</sup>Ibid.

<sup>42</sup>Melvin Lampl, "Defensiveness, Dogmatism, and Self-esteem," Dissert. Abstr., XXIX, 6-B (1968), 2194.

<sup>43</sup>M. Rokeach and B. Fruchter, "A Factorial Study of Dogmatism and Related Concepts," J. Abnorm. Soc. Psychol., LIII (November, 1956), 356-60; see also B. Fruchter, "A Factorial Study of Dogmatism, Opinionation, and Related Scales," Psychol. Rep., 4:19, 1958.

the individual the higher will be his Dogmatism Scale score.<sup>44</sup>

Richek et al. selected one hundred sixty-six undergraduates at a small denominational university who provided information on their religiousness and completed the MMPI and the Dogmatism Scale. They found that for religious females dogmatism was positively correlated with anxiety and negatively correlated with mental health.<sup>45</sup>

In another study Kilpatrick et al., working with four hundred ninety-five subjects of both sexes from two southern universities, found that churchgoers were generally more dogmatic but that individuals with an extremely high rate of church attendance show a less dogmatic trend than less frequent attenders. One conclusion these researchers drew was that the culture and mores of a particular region may function differentially to produce intradenominational differences in dogmatism. However, these researchers cautioned that only when the D-Scale is administered to a representative sample of the total population can statement of religiosity and dogmatism be made with a degree of generality.<sup>46</sup>

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<sup>44</sup>R. A. Di Giuseppe, "Dogmatism Correlation with Strength of Religious Conviction," Psychol. Rep., XXVIII (February, 1971), 64.

<sup>45</sup>H. G. Richek, "Dogmatism, Religiosity and Mental Health in College Students," Ment. Hyg., N. Y., LIV (October, 1970), 573-74.

<sup>46</sup>Dean G. Kilpatrick, "Dogmatism, Religion, and Religiosity, A Review and Re-evaluation," Psychol. Rep., XXVI (February, 1970), 22.

Feather tested forty undergraduates of both sexes, including members of religious societies and atheists. The subjects evaluated the logical development of pro- and anti-religious syllogisms and one week later ranked the conclusions of these syllogisms in a Likert type scale. The Budner (1962) Intolerance of Ambiguity Test and Rokeach's D-Scale were also given. The results suggest that the anti-religious subjects' perception of the logic of religious arguments is determined by their set or attitude.<sup>47</sup> These results were confirmed by Lo Sciuto and Hartley in a study of twenty subjects involving binocular resolution, dogmatism, and religious affiliation.<sup>48</sup> Feather concluded:

. . . as one moves from groups or societies that tolerate a wide range of beliefs about religious matters . . . to religious societies that require members to subscribe to a set of basic beliefs about which there can be little argument . . . and which depend upon the authority of the Church and/or the Scriptures, one encounters increased dogmatism and intolerance of ambiguity among members . . . .

. . . In summary, dogmatism and intolerance of ambiguity would both probably tend to be higher among members of religious and anti-religious societies that hold firmly to a set of beliefs that cannot be questioned. . . . Such societies may attract members who are already dogmatic in their belief systems. Membership of these societies should tend to reinforce dogmatism and intolerance of ambiguity.<sup>49</sup>

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<sup>47</sup>N. T. Feather, "Evaluation of Religious and Neutral Arguments in Religious and Atheist Student Groups," Amer. J. Psychol., XIX, 1 (1967), 4-7.

<sup>48</sup>L. A. Lo Sciuto and E. L. Hartley, "Religious Affiliation and Open-mindedness in Binocular Resolution," Percept. Mot. Skills, XVII, 2 (1963), 427-30.

<sup>49</sup>Feather, op. cit., pp. 10-11.

If a person's beliefs affect his level of anxiety, ethnic influences could also result in anxiety differences. Lynn has devoted much time to the study of national and racial differences in anxiety. He concluded that there is a tendency for anxiety to be high in those countries whose racial composition is predominantly Alpine and Mediterranean. In contrast, where the population is predominantly Nordic the anxiety level tends to be low. Lynn was also able to rank the nations according to average national anxiety.<sup>50</sup> Corroboration of these results was made by Zborowsky and Lazarus et al.<sup>51</sup>

One criticism of the above studies must be their experimental definition of anxiety. Lynn reasoned anxiety is probably most commonly defined in terms of the reactivity of the sympathetic nervous system to stimulation and stress, giving rise to such variety of physiological reactions as acceleration of heart and respiration rate, vaso-constriction in the fingers, an increase in muscle potential, an increase in frequency and decrease in amplitude of electroencephalogram rhythms, pupil dilation, and the psychogalvanic reaction (palmar sweating); the anxious person is the one who gives

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<sup>50</sup>R. Lynn, "National and Racial Differences in Anxiety," Mankind Quart., XI, 2 (1971), 211.

<sup>51</sup>M. Zborowski, "Cultural Components in Responses to Pain," J. Soc. Issues, VIII, 4 (1952), 16-30; see also R. S. Lazarus et al., "A Cross-cultural Study of Stress Reaction Patterns in Japan," J. Pers. Soc. Psychol., IV, 6 (1966), 622-33.

large reactions. Lynn maintained that it is also possible to assess an individual's anxiety level by questionnaires covering symptoms of anxiety, such as sleep difficulties, periodic depression, fluctuations in energy level, psychosomatic complaints, panic reactions, nervous tension and so forth. But, he maintained, high scores on such questionnaires are associated with high levels of sympathetic reactivity on the physiological indices listed above.<sup>52</sup> Lynn devoted a volume to the justification of the inclusion in his anxiety index of such factors as suicide rate, ulcer death rate, calorie intake, alcoholism death rate, heart disease, cigarette consumption, mental illness, vehicular accident death rate, hypertension death rate, murder rate, and celibacy rate.<sup>53</sup>

In evaluating these results it must be cautioned that because the existence of national and racial anxiety levels may be related to inbred genetic potentials, one may not necessarily infer that a belief system such as a religion or a philosophy can influence anxiety.

### Adjustment

A number of studies have attempted to test whether strong religious beliefs may produce psychological adjustment or "peace of mind." Ranck assumed experimentally that

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<sup>52</sup>Lynn, op. cit., p. 205.

<sup>53</sup>Ibid., pp. 206-08.

religious ideology is primarily a cultural phenomenon. He administered a battery of tests to eight hundred theological students who represented a conservative-liberal continuum. His results showed that psychological adjustment as measured by the Bell Inventory and some of the MMPI subscales was not related to religious ideology.<sup>54</sup>

Symington related the religious attitudes of college students to certain personality measures, such as the Pressey Test and the Bernreuter Inventory. He found a constant positive relationship between the number of things worried about and religious liberalism in conservative communities.<sup>55</sup>

In one study, Wilson and Kawamura tested one hundred sixty-four subjects of various racial and religious backgrounds using a Likert type religiousness scale and neuroticism scales from Eysenck and the modified MMPI. The results offer little support for the hypothesis that religious persons manifest superior personal adjustment.<sup>56</sup> However, Chambers et al. have suggested that students without religious affiliation have more adjustment problems than

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<sup>54</sup>J. G. Ranck, "Some Personality Correlates of Religious Beliefs," Dissert. Abstr., XV, 6 (1955), 878-79.

<sup>55</sup>T. A. Symington, Religious Liberals and Conservatives. Contributions to Education No. 640 (New York: Teachers College, Columbia Univ., 1935), p. 12.

<sup>56</sup>W. Wilson and W. Kawamura, "Rigidity, Adjustment, and Social Responsibility as Possible Correlates of Religiousness: A Test of Three Points of View," J. Sci. Stud. of Relig., VI, 2 (1967), 279.



other students on the basis of the Picture Identification Test based on the Murray (1953) need system. They suggested that non-affiliators are ineffectual in the expression and satisfaction of needs, and have low achievement need scores which may reflect an inability to perceive goals and purposes in life. Non-affiliators like to be independent, free and unrestrained. However, they are likely to have inner conflicts, such as a wish for the denial of responsibility toward others, which make it difficult to effectively express their desires for independence. The experimenters warn that since there are many reasons why a person might reject a religious affiliation, the results may have little generalization to the religious needs of groups which differ in age, socioeconomic levels, or in geographic areas where religion may play a different role in the local culture.<sup>57</sup>

The findings of Chambers et al. are consistent with those of Wright who discovered a positive relationship between religious conviction and personal adjustment.<sup>58</sup>

In another study of one hundred fifty-two male Protestant college students, Graff and Ladd administered the Personal Orientation Inventory of Shostrum to measure self-actualization. The Dimensions of Religious Commitment of

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<sup>57</sup>J. L. Chambers et al., "Need Differences Between Students with and without Religious Affiliation," J. Counsel. Psychol., XV, 3 (1968), 209-10.

<sup>58</sup>J. C. Wright, "Personal Adjustment and its Relationship to Religious Attitudes and Certainty," Relig. Educ., LIV, 7 (1959), 521-23.

Glock and Stark, a measure of religiosity, was also administered. The results suggested that the less religious subjects tended to be more self-accepting, more spontaneous, more inner directed and less dependent than subjects with a high level of religiosity.<sup>59</sup> Using a different measure of personal adjustment, Brown administered Thouless's (1935) Questionnaire of strength of belief to two hundred three Australian college students of predominantly Judeo-Christian background. He found a higher anxiety score (Taylor MAS) and lower authoritarianism (F) score for those not belonging to any denomination.<sup>60</sup>

Two studies in which religious belief was regarded to lie on a liberal-conservative dimension yield somewhat different results. McGrath administered a semantic differential of personal adjustment to students involved in campus religious organizations. He found differences in personal adjustment scores between Catholic, Baptist, and Unitarian groups. Although Catholics showed the best adjustment scores, Catholic female students expressed a very low self-esteem and very low self-satisfaction. This study did not attempt to evaluate the adjustment of nonreligious individuals.<sup>61</sup>

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<sup>59</sup>R. W. Graff and C. E. Ladd, "POI Correlates of a Religious Commitment Inventory," J. Clin. Psychol., XXVII (October, 1971), 504.

<sup>60</sup>L. B. Brown, "A Study of Religious Belief," Brit. J. Psychol., LIII, 3 (1962), 265.

<sup>61</sup>J. E. McGrath, "Religious Group Differences in Value Orientations, Interpersonal Perceptions and Personal Adjustment" (paper read at the meeting of the Society for the Scientific Study of Religion, October, 1961, Cambridge, Massachusetts).

However, another study of emotional adjustment was done by Armstrong et al. They developed a religious attitude scale (RAS) and administered it to two hundred nine normal and psychotic subjects of both sexes comprising various religious denominations. Osgood's Semantic Differential was used as a measure of personal adjustment. Their results for the normal subjects indicated that psychological adjustment, in terms of the discrepancy between actual self and ideal self ratings, was not significant across denominational lines.<sup>62</sup>

### Anxiety

Only a few studies have dealt directly with the relationship between religious belief and anxiety. Rokeach, who studied the nature of belief and personality systems, stated that ". . . the correlations between closed belief systems and anxiety are always positive and from the standpoint of factor analysis, factorially the same."<sup>63</sup> He maintained, "Anxiety can be represented as a cognitive belief that 'It is only natural for a person to be fearful of the future.'"<sup>64</sup> Results of his studies indicate that people with formal religious affiliation are more anxious.<sup>65</sup>

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<sup>62</sup>R. G. Armstrong et al., "Religious Attitudes and Emotional Adjustment," J. Psychol. Stud., XIII, 1 (1962), 46.

<sup>63</sup>M. Rokeach, The Open and Closed Mind (New York: Basic Books, 1960), p. 403.

<sup>64</sup>Ibid., p. 400.

<sup>65</sup>Ibid., p. 351.

The relationship of certain sociological factors to self-reported anxiety as revealed by the Mooney Problem Check List was studied by Cutsumbis in two studies involving three hundred fifty-seven and one hundred fifty university students respectively. The results did not indicate a relationship between religious affiliation and manifest anxiety.<sup>66</sup>

Spilka used the Thurstone Scale of Attitude Toward the Church and an ethnocentrism scale to separate religious college undergraduates into high ethnocentric and low ethnocentric groups. A subsequent battery of tests revealed that the religious ethnocentric group scored higher on manifest anxiety and self concept instability than the religious non-ethnocentric group. However, Spilka did not include in his research either nonreligious ethnocentrics or nonreligious nonethnocentrics.<sup>67</sup>

In a 1968 study of fear, anxiety, and religiousness, Wilson and Miller tested one hundred undergraduates enrolled in introductory psychology at the University of Alabama. The measure of fearfulness by Stephens consisted of expressions of fear of commonly feared stimuli. A self rating form of religious practice and a short form of the Taylor MAS

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<sup>66</sup>M. N. Cutsumbis, "The Relationship of Certain Sociological Factors to Self-reported Anxiety as Revealed by the Mooney Problem Check List," Educ. Psychol. Measmt., XXVIII, 2 (1968), 580.

<sup>67</sup>B. Spilka, "Some Personality Correlates of Interiorized and Institutionalized Religious Beliefs," New York University Psychological Newsletter, 9:103, 1958.

yielded the results of religiousness being positively correlated with both fearfulness and anxiety. They maintained that there seemed to be a small but reliable tendency for nonreligious persons to give "healthier" answers on these measures of anxiety and fear.<sup>68</sup>

Williams and Cole divided one hundred sixty-one college sophomores and juniors from introductory psychology into high, intermediate, and low religiosity groups using an expanded form of Ligon's Religious Participation Questionnaire. Based on the assumption that security is an indicator of emotional adjustment, security-insecurity indices and MMPI scores corroborated that the low religiosity group was significantly less secure than the high and intermediate groups. Though the Galvanic Skin Response arousal levels for the three groups was not significantly different, the researchers concluded: "On all dimensions of anxiety the active religious subjects manifested the highest level of adjustment."<sup>69</sup> However, the experimenters based their conclusions upon data from only eighteen of the original one hundred sixty-one subjects. In addition, there were few subjects possessing no affinity for religion. One must also be cautious about generalizing the results of a low religiosity group to nonreligious groups.

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<sup>68</sup>W. Wilson and H. L. Miller, "Fear, Anxiety, and Religiousness," J. Sci. Stud. of Relig., VII, 1 (1968), 111.

<sup>69</sup>R. L. Williams and S. Cole, "Religiosity, Generalized Anxiety, and Apprehension Concerning Death," J. Soc. Psychol., LXXV, 1 (1968), 115.

In a 1970 study of religious belief and practice, Glass measured manifest anxiety by the Self Analysis Form of Cattell and Scheier (1963). Glass divided four hundred ninety-five junior college women into equal sized high, intermediate, and low religious belief groups by survey methods. The subjects were also divided into high, intermediate, and low religious practice groups. According to Glass the general conclusion can be made that religious belief is positively correlated with dogmatism, but both religious belief and practice are negatively correlated with anxiety. Glass concluded: "Fairly strong support was obtained for the thesis that religious subjects are less anxious than non-religious subjects, especially if they consistently practice their faith."<sup>70</sup>

Glass believed that these results were supported in a related study of denominational differences of four hundred thirty-one college women. He measured religious belief on a liberal-conservative scale of Brown and Lowe (1951). The degree of religious practice was measured by modified Ligon Scale (1965). According to Glass, Catholics and Presbyterians were more anxious than the Episcopal group, which scored "most secure" on the anxiety measure.<sup>71</sup>

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<sup>70</sup>Kenneth D. Glass, "A Study of Religious Belief and Practice as Related to Anxiety and Dogmatism in College Women" (unpublished Doctor's dissertation, University of Tennessee, 1970), pp. 36-37.

<sup>71</sup>Kenneth D. Glass, "Denominational Differences in Religious Belief, Practice, Anxiety, and Dogmatism," Relig. Educ., LXVI, 3 (1971), 205.

The lone study concerning the relationship of anxiety to belief in a religion as opposed to a philosophy of life was conducted by Funk in 1955. She studied the dynamics of religious beliefs and correlated the variables: philosophy of life, religious conflict, hostility to the church, religious tranquility, religious solace, and change of religious attitudes. For her investigation she selected two hundred fifty-five college men and women of various religious denominations. Religious preference was determined by survey while anxiety was measured by a modified version of the Taylor MAS. The major finding of the study was a positive correlation of religious conflict with manifest anxiety and that anxiety was unrelated to orthodoxy, religious preference, hostility toward religion, change of religious attitudes, or belief in a philosophy of life instead of a religion.<sup>72</sup>

One criticism of Funk's work recommended that since college students may not have had sufficient time to develop philosophies other than those advocated by their parents, a longitudinal study would provide greater insight into the stability of anxiety in this context. Another criticism of this study is the choice of philosophical categories which require rejection of religious values.

Funk reasoned that "although religion may form the basis of a philosophy of life, a religious value system has

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<sup>72</sup>R. A. Funk, "A Survey of Religious Attitudes and Manifest Anxiety in a College Population" (unpublished Doctor's dissertation, Purdue University, 1955), pp. 69-71.

a different meaning than does a nonreligious code of ethics." Following this rationale, ". . . an attempt was made to include in each item of the philosophy of life scale not only a philosophical viewpoint but also a rejection of religious beliefs."<sup>73</sup> However, it has already been pointed out that a more popular view of the difference between religion and philosophy of life may be one of institutional acceptance.

One of many studies which have produced results which refute Funk's choice of philosophical categories was done by Roscoe who tested four thousand five students from seventeen colleges and universities. He found that "A surprising minority of the students who decline to be identified with any major denomination express confidence in the traditional Judeo-Christian doctrines."<sup>74</sup>

#### SUMMARY

Although evidence supports the existence of national and racial differences in anxiety level, the relationship of anxiety to religious belief may be more complex. Many of those who have been interested in the field of religious belief maintain that man's sense of powerlessness, isolation, and loss of meaning give rise to existential anxieties. Guilt, with its implication of personal responsibility, allows

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<sup>73</sup>Ibid., p. 84.

<sup>74</sup>John T. Roscoe, "Religious Beliefs of American College Students," College Student Survey, II, 3 (1968), 54.



man to have some feeling of control over his environment. This psychological equivalent to sin is a prerequisite to religious belief.

Though it has not been determined whether religious feelings are innate, religious beliefs have been shown to be cognitive belief systems and are susceptible to social influences, which in turn may be based on anxiety and fear responses.

Some experimental support has been given for the hypothesis that a difference between religious and philosophical belief is one of institutional acceptance. In addition, evidence appears to indicate that the relationship of anxiety to religious belief may be curvilinear. Individuals who consistently practice their religious beliefs as well as those who are nonreligious showed indications of better adjustment than the marginal man of the church who does not live in a manner consistent with his beliefs.

Considerable evidence suggests that dogmatism and anxiety are a single psychological factor. However, while the consensus appears to support the opinion that religious individuals are more authoritarian and dogmatic, no conclusive statement can be made concerning the relationship of anxiety to a religious as opposed to a philosophical belief.

## Chapter 3

### METHODS AND PROCEDURES

To determine if there was a significant difference in manifest anxiety level between individuals professing religious belief as opposed to those individuals professing belief in a philosophy of life this descriptive study selected a random sample of seniors from the Kansas State Teachers College of Emporia. These seniors completed a survey consisting of a "religious attitude" questionnaire and the Taylor Manifest Anxiety Scale. The data collected over a three day period was subjected to analysis of variance and chi-square analysis.

### POPULATION AND SAMPLING

The population studied was comprised of all of the members of the senior class at the Kansas State Teachers College of Emporia enrolled during the fall semester of 1972. This population of thirteen hundred forty-four seniors was made up of seven hundred thirty-eight males and six hundred six females of various ages, races and national origins. To maintain this proportion of men and women every twenty-seventh male and twenty-sixth female senior was selected from a complete list of the above population made available by

the Office of Admissions and Records. This resulted in the selection of twenty-seven men and twenty-three women, which allowed for alternates to compensate for the unavailability or unwillingness to cooperate of some members of the sample. Of the fifty seniors selected, the first sixteen males and fourteen females contacted were the subjects who completed the "religious attitude" questionnaire and the Taylor MAS. The anxiety scores from these thirty subjects were divided into religious, philosophical, and uncommitted groups according to each subject's acceptance of one of the three corresponding responses of the "religious attitude" questionnaire.

Because the Kansas State Teachers College of Emporia draws its enrollment almost uniformly from the entire state of Kansas, the sample should be representative of all college seniors in Kansas schools and other areas where the cultural norms are similar. In addition, there is reason to assume that the results obtained from this student sample might be generalized to nonstudent populations who assume equivalent responsibilities, independence, growth or achievement drive, and are motivated to question their relationship with the environment.<sup>75</sup> It was assumed that the informal nature of the testing situation allowed the subjects to be at ease. Also, the wording of the "religious attitude"

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<sup>75</sup>Janet Taylor, "A Personality Scale of Manifest Anxiety," J. Abnorm. Soc. Psychol., XLVIII, 2 (1953), 286.

questionnaire left little latitude for the subjects to choose a category other than the one in which they believed because of second guessing effects or hostility toward the testing situation.

## MATERIALS AND INSTRUMENTATION

To determine if Taylor Manifest Anxiety Scale score was related to religious or philosophical preference, each subject was asked to complete a "religious attitude" questionnaire entitled Belief Survey and the Taylor MAS, which was presented with the title Biographical Inventory.

### Religious Attitude Questionnaire

The Belief Survey was developed for this study for the purpose of dividing subjects into religious, philosophical, and uncommitted categories. This was accomplished by the creation of three statements worded equivalent to the definitions of these groups which were previously discussed. Subjects designated their agreement with one of the three statements of the Belief Survey, and were considered to be included in the corresponding group.

The distinction between a religion and a philosophy was defined in terms of whether the individual held and practiced his faith independently or was influenced by a group. The experimenter believed that two people may practice the same beliefs; one with reference to how others in a group structure their faith, and the other for internal

personal reasons. The former could be said to be religious and the latter philosophical.

### Manifest Anxiety Scale

The 1952 revision of the Manifest Anxiety Scale by Janet Taylor was the measure of "free floating" or manifest anxiety.<sup>76</sup> However, only the fifty items considered by Taylor to be the most discriminating as indicators of anxiety were administered. The two hundred twenty-five supplementary statements nonindicative of anxiety were omitted.<sup>77</sup> This paper and pencil test is generally considered to measure the intensity of anxiety by items describing what have been called overt or manifest symptoms of this state following Cameron's description of chronic anxiety reactions.<sup>78</sup> One anxiety point is credited for each response designated as anxious for an item; thus, the possible limits of the scores would be zero, indicating the highest level of adjustment, and fifty, representing the most extreme level of anxiety.

The MAS was standardized by testing 1,971 students over a three year period. The distribution showed a slight skew toward higher anxiety. The fiftieth percentile fell at about 13, the eightieth at about 21, and the twentieth at about 7. The mean of the distribution was 14.56.<sup>79</sup>

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<sup>76</sup>Ibid., pp. 285-90.

<sup>77</sup>Ibid., p. 290.

<sup>78</sup>Ibid., p. 285; see also N. Cameron, The Psychology of Behavior Disorders (Boston: Houghton Mifflin, 1947).

<sup>79</sup>Taylor, op. cit., p. 285.

Distributions for six hundred eighty-three airmen and two hundred one university night-school students showed essentially the same form. Test-retest results from fifty-nine students after three weeks yielded a Pearson product moment coefficient of .89. Another retest of one hundred sixty-three students after an interval of from five to seventeen months from the first testing showed a coefficient of .81. For all groups tested both the relative position of the individual in the group and his absolute score tended to remain constant over relatively long periods of time.<sup>80</sup>

The form of the MAS used in the present investigation was administered to two hundred twenty-nine students in introductory psychology at Northwestern University. The results did not differ significantly from those discussed for the previous form. Retest scores for one hundred seventy-nine of these subjects after a four week period yielded a product-moment correlation of .88. However, the mean for this group showed a significant change at the .01 level, as indicated by a t test, from 14.94 to 12.92. Additional reliability and validity data are available.<sup>81</sup>

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<sup>80</sup>Ibid., pp. 286-87.

<sup>81</sup>Ellen Ahana, "A Study on the Reliability and Internal Consistency of a Manifest Anxiety Scale" (unpublished Master's thesis, Northwestern University, 1952; J. L. Hedlund, I. E. Farber, and H. P. Bechtoldt, "Normative Characteristics of the Manifest Anxiety Scale" (unpublished paper, State University of Iowa); and G. W. Dahlstrom and G. S. Welsh, An MMPI Handbook: A Guide to Use in Clinical Practice and Research (Univ. Minn. Press, 1960), pp. 288-95.

## DESIGN OF THE STUDY

This descriptive study made use of a survey to determine if there was a difference in anxiety level between those who prefer a religion and those subscribing to a philosophy of life. Thirty subjects were selected in a randomized group procedure to measure Taylor Manifest Anxiety Scale scores as a function of religious or philosophical belief as measured by a "religious attitude" questionnaire.

Rigid adherence to the randomization of the sample and uniform administration of the questionnaire were considerations in the reliability and validity of the data. Although the Belief Survey was previously untested, it was reasoned that a pilot study was unnecessary since the purpose of this questionnaire was to establish a criterion for the separation of the subjects' anxiety scores.

## DATA COLLECTION

The subjects, who were selected from a list of seniors at the Kansas State Teachers College of Emporia, were contacted by telephone and asked to participate in a "belief survey" by filling out a questionnaire "which would take very little time." Appointments were made for a time and place convenient for each subject. Subjects who did not have telephones were approached by the interviewer in the same manner at their homes. No pressure to participate was exerted upon the subjects, as it was reasoned that uncooperative subjects

might be hostile and not give accurate data. The interview situation was for the most part informal. The instructions given to the subjects were unstructured. The interviewer, upon arriving at the designated testing place, told each subject that his cooperation was appreciated; and, the test was very simple and he probably would have no difficulty. He was told, however, to ask directions of the interviewer if there was something he did not understand. If asked, the interviewer offered only two clarifications. On the Belief Survey an inquiring subject was told he should not choose a statement because the wording of one part of the statement reflected his viewpoint better than the wording of another statement; but, that he should choose the one statement that was entirely true for him. On the Biographical Inventory he should answer on the basis of what was generally true for him at that period of his life. Following the completion of the questionnaire, the subjects were thanked once again for their cooperation; and, the interviewer left. Although no time limit was given, almost all of the subjects completed both the Belief Survey and the MAS within ten minutes.

#### DATA ANALYSIS

To determine if any of the religious, philosophical, or uncommitted groups were associated with a higher level of manifest anxiety, the means of these groups were compared by analysis of variance. Also the tendency of members of the



different groups to respond differently to the various anxiety items was examined by chi-square analysis.

### Analysis of Variance

Analysis of variance is a method of testing for significant differences between the means of two or more groups. This ratio tests the hypothesis that the groups being studied are random samples drawn from the same normally distributed population, and refutes the null hypothesis by demonstrating differences which cannot be explained by chance.

In the "single classification" model the data is organized in order to test for differences in a dependent or criterion variable among groups which represent the consequences of a single independent variable. The following represents the process for the computation of the analysis of variance:

$$C = \frac{(\Sigma X)^2}{N} .$$

The correction term (C) is computed by dividing the square of the sum of the raw scores (X) for the combined groups by the number of cases (N) in the study.

$$SS_T = \Sigma X^2 - C .$$

The total sum of squares ( $SS_T$ ) around the general mean is found by summing the squares of the raw scores for the groups and subtracting the correction term.

$$SS_{M's} = \frac{(\Sigma X_1)^2}{n_1} + \frac{(\Sigma X_2)^2}{n_2} + . . . + \frac{(\Sigma X_n)^2}{n_n} - C .$$

The squared total of scores for each group is divided by the number of cases in the group. The sum of these quantities minus the correction term is the sum of squares among the means ( $SS_{M's}$ ).

$$SS_W = SST - SS_{M's} .$$

The sum of the squares within the groups ( $SS_W$ ) always equals the total sum of squares minus the sum of squares among the means.

$$df = (r-1)(c-1) .$$

The number of degrees of freedom (df) are found by multiplying one less than the number of rows of data (r) by one less than the number of columns of data (c).

$$\sigma^2 = \frac{SS}{df} .$$

The variance is the sum of squares divided by the appropriate degrees of freedom.

$$F = \frac{\sigma_{M's}^2}{\sigma_W^2} .$$

The hypothesis is tested by dividing the among means variance ( $\sigma_{M's}^2$ ) by the within groups variance ( $\sigma_W^2$ ). The resulting F ratio is compared with table values of probable levels of confidence that the results are not due to chance or error.

### Chi-square

To determine if members of the three groups responded differently in their selection of anxiety items, chi-square analysis was used. The chi-square test represents a useful method of comparing experimentally obtained results with those

to be expected theoretically on some hypothesis. The equation for chi-square ( $\chi^2$ ) is:

$$\chi^2 = \sum \left[ \frac{(f_o - f_e)^2}{f_e} \right] .$$

In this formula  $f_o$  represents the frequency of occurrence of observed or experimentally determined facts;  $f_e$  represents the expected frequency of occurrence on some hypothesis.

This equation represents chi-square as the differences between observed and expected frequencies which have been squared, divided by the expected frequency, and summed. The closer the agreement between the expected and observed results, the smaller the chi-square. This indicates greater probability of verification of the hypothesis. In cases where the expected frequency and the observed frequency are the same, chi-square equals zero and the null hypothesis is satisfied. Various probabilities of significance for the computed chi-square are obtained from a table based on the number of degrees of freedom of the data. Computation of degrees of freedom was discussed in the preceding section, Analysis of Variance.

## Chapter 4

### ANALYSIS OF DATA

To determine if there was a significant difference in manifest anxiety level between individuals preferring religion and individuals favoring philosophy of life, a questionnaire was administered to each of thirty subjects. The responses to the questionnaires were subjected to analysis of variance and chi-square.

### RESPONSE ANALYSIS

As previously described, a sample of thirty subjects was selected and solicited to respond to the Belief Survey and the Biographical Inventory. All subjects who were approached did respond; and, all of the thirty questionnaires were included in the data. On the basis of their responses to the Belief Survey, the subjects were divided in the following manner: fifteen religious subjects, thirteen philosophical, and two uncommitted subjects.

### STATISTICAL ANALYSIS

The means of the religious, philosophical, and uncommitted groups were compared by analysis of variance. The responses of the groups to the anxiety items were examined for differences by chi-square analysis. These statistical

procedures, including the theory, formulation, and appropriate application of analysis of variance and chi-square, have been discussed in detail in Chapter 3.

### Group Analysis

The "single classification" model of the analysis of variance was the statistical tool used to test the null hypothesis that there was no significant difference between the religious and philosophical populations selected in this study. Analysis of an uncommitted population was also attempted. On the basis of the responses made to the Taylor MAS, the religious group mean obtained was 17.67 ( $\bar{X}_r = 17.67$ ), while a mean value of 12.15 was calculated for the philosophical group ( $\bar{X}_p = 12.15$ ) and a mean of 12.50 was found for the uncommitted subjects ( $\bar{X}_u = 12.50$ ).

In addition, the sum of squares ( $ss_b = 224.34$ ;  $ss_w = 1333.53$ ), the mean squares ( $ms_b = 112.17$ ;  $ms_w = 49.39$ ), the degrees of freedom ( $df_b = 2$ ;  $df_w = 27$ ), along with the F-value are presented in Table 1.

Table 1

Analysis of Variance of Anxiety Scores for Religious, Philosophical, and Uncommitted Groups

Source of variation	Sum of squares	Degrees of freedom	Mean square	F
Between	224.34	2	112.17	2.27
Within	1333.53	27	49.39	
Total	1557.87	29		

The obtained F-ratio of 2.27 was less than the tabled value of 3.35 ( $F_{2,27} < 3.35$ ) at the .05 level of significance. Since the obtained F-value did not fall within the critical region the null hypothesis was accepted.

It was reasoned that the anxiety responses of the two uncommitted subjects might be insufficient data to justify the comparison of that group with the larger two groups. Therefore, the analysis of variance of the religious and philosophical group means, independent of the uncommitted subjects' scores, was calculated.

Although the means of the anxiety scores remained the same, the sum of the squares ( $ss_b = 211.65$ ;  $ss_w = 1321.03$ ), the mean squares ( $ms_b = 211.65$ ;  $ms_w = 50.81$ ), the degrees of freedom ( $df_b = 1$ ;  $df_w = 26$ ), and the F-value changed slightly and are presented in Table 2.

Table 2

Analysis of Variance of Anxiety Scores for  
Religious and Philosophical Groups

Source of variation	Sum of squares	Degrees of freedom	Mean square	F
Between	211.65	1	211.65	4.17
Within	1321.03	26	50.81	
Total	1532.68	27		

The obtained F-ratio of 4.17 was less than the tabled value of 4.22 ( $F_{1,26} < 4.22$ ) at the .05 level of significance. Since the obtained F-value of 4.17 did not

fall within the critical region the null hypothesis was accepted.

It might be concluded that there is no significant difference in manifest anxiety level between those individuals professing belief in a philosophy of life, as measured by a religious attitude questionnaire and the Taylor MAS. It might also be concluded that uncommitted individuals do not differ significantly in manifest anxiety level from religious or philosophical individuals, although it must be cautioned that this conclusion is based on an uncommitted group of only two subjects.

### Item Analysis

The chi-square test described in Chapter 3 was the statistical method used to examine the tendency of members of the different groups to respond differently to the various items. Since the anxiety responses of the two uncommitted subjects might be insufficient data to warrant comparison with the larger two groups, chi-square of the religious and philosophical groups was computed independent of the uncommitted group. The data for five significant anxiety items are presented in this section. The remaining forty-five anxiety items of the Taylor MAS did not differentiate between religious and philosophical groups at the .05 level of significance.

Item 18. "I have often felt that I faced so many difficulties I could not overcome them". On the basis of the

responses made to this statement, the observed frequencies of the anxiety responses for the fifteen religious and thirteen philosophical group members were five ( $f_{OR} = 5$ ) and zero ( $f_{OP} = 0$ ) respectively. Assuming that there would be no significant difference in the way religious and philosophical subjects respond to this statement, the calculated expected frequencies of anxiety responses for these groups were 2.68 ( $f_{eR} = 2.68$ ) and 2.32 ( $f_{eP} = 2.32$ ) respectively. Similarly, for religious subjects there were ten nonanxiety responses ( $f_{OR} = 10$ ) and an expected frequency of 12.32 ( $f_{eR} = 12.32$ ). For philosophical subjects there were thirteen nonanxiety responses ( $f_{OP} = 13$ ) and an expected frequency of 10.68 ( $f_{eP} = 10.68$ ). In addition, the degrees of freedom ( $df = 1$ ) as well as the chi-square value ( $\chi^2 = 5.27$ ) are presented in Table 3.

Table 3

Chi-square of Religious and Philosophical  
Group Responses to Anxiety Item 18

	Anxiety		Nonanxiety		Total
	$f_o$ ;	$f_e$	$f_o$ ;	$f_e$	
Religious	5;	2.68	10;	12.32	15
Philosophical	0;	2.32	13;	10.68	13
Total	5		23		28

$$\chi^2 = 5.27; df = 1$$

The obtained chi-square of 5.27 was greater than the tabled value of 3.84 ( $\chi^2 > 3.84$ ) at the .05 level of significance. Since the obtained  $\chi^2$  of 5.27 did fall within the



critical region, the null hypothesis was rejected. Therefore, it might be concluded that the differences between the theoretically expected and the experimentally observed frequencies are significant; and, there was a significant difference in the way religious and philosophical subjects responded to item 18 of the Taylor MAS: "I have often felt that I faced so many difficulties I could not overcome them". Religious subjects showed a greater tendency to give an anxiety response to this item.

Item 19. "At times I have been worried beyond reason about something that really did not matter". The responses of the subjects to this statement yielded observed frequencies of the anxiety responses for the religious and philosophical groups of eleven ( $f_{OR} = 11$ ) and four ( $f_{Op} = 4$ ) respectively. The expected frequencies for these groups, as predicted by the null hypothesis, were 8.04 ( $f_{eR} = 8.04$ ) and 6.96 ( $f_{ep} = 6.96$ ) respectively. The fifteen religious subjects provided four nonanxiety responses ( $f_{OR} = 4$ ) and an expected frequency of 6.96 ( $f_{eR} = 6.96$ ). For the thirteen philosophical subjects, there were nine nonanxiety responses ( $f_{Op} = 9$ ) and an expected frequency of 6.04 ( $f_{ep} = 6.04$ ). The chi-square value ( $\chi^2 = 5.07$ ) obtained at one degree of freedom ( $df = 1$ ) is presented with the data in Table 4.

The obtained chi-square of 5.07 was greater than the tabled value of 3.84 ( $\chi^2 > 3.84$ ) at the .05 level of significance. Since the obtained  $\chi^2$  of 5.07 did fall within the

critical region, the null hypothesis was rejected. Item 19 of the Taylor MAS states: "At times I have been worried beyond reason about something that really did not matter". It might be concluded that religious subjects showed a significantly greater tendency to give an anxiety response to this item than did philosophical subjects.

Table 4

Chi-square of Religious and Philosophical  
Group Responses to Anxiety Item 19

	Anxiety		Nonanxiety		Total
	$f_o$ ;	$f_e$	$f_o$ ;	$f_e$	
Religious	11;	8.04	4;	6.96	15
Philosophical	4;	6.96	9;	6.04	13
Total	15		13		28

$$\chi^2 = 5.07; df = 1$$

Item 28. "At times I feel that I am going to crack up". The observed frequency of the anxiety scores for the fifteen religious group members was eight ( $f_{or} = 8$ ) as compared to an expected frequency of 4.82 ( $f_{er} = 4.82$ ). There were seven nonanxiety responses for this group ( $f_{or} = 7$ ) and a corresponding expected frequency of 10.18 ( $f_{er} = 10.18$ ). The responses of the thirteen philosophical subjects produced an observed frequency of one anxiety response ( $f_{op} = 1$ ) as compared with an expected frequency of 4.18 ( $f_{ep} = 4.18$ ). There were twelve nonanxiety responses for this group ( $f_{op} = 12$ ) and a corresponding expected frequency of 8.82 ( $f_{ep} = 8.82$ ). The chi-square value ( $\chi^2 = 6.65$ ) obtained

from this data at one degree of freedom ( $df = 1$ ) is shown in Table 5.

Table 5  
Chi-square of Religious and Philosophical  
Group Responses to Anxiety Item 28

	Anxiety		Nonanxiety		Total
	$f_o$ ;	$f_e$	$f_o$ ;	$f_e$	
Religious	8;	4.82	7;	10.18	15
Philosophical	1;	4.18	12;	8.82	13
Total	9		19		28

$$\chi^2 = 6.65; df = 1$$

The obtained chi-square of 6.65 was greater than the tabled value of 3.84 ( $\chi^2 > 3.84$ ) at the .05 level of significance. Since the obtained chi-square of 6.65 did fall within the critical region the null hypothesis was rejected. It might be concluded that religious subjects tended to give an anxiety response to this item of the Taylor MAS significantly more often than philosophical subjects. This anxiety response corresponds to agreement with the statement: "At times I feel that I am going to crack up".

Item 35. "I am often afraid that I am going to blush". The responses of the subjects to this statement yielded observed frequencies of the anxiety responses for the religious group of zero ( $f_{or} = 0$ ) and three for the philosophical group ( $f_{op} = 3$ ). The expected frequencies for these groups was 1.61 ( $f_{er} = 1.61$ ) and 1.39 ( $f_{ep} = 1.39$ ) respectively.

The fifteen religious subjects provided fifteen nonanxiety responses ( $f_{or} = 15$ ) as opposed to an expected frequency of 13.39 ( $f_{er} = 13.39$ ). Ten nonanxiety responses were observed for the philosophical subjects ( $f_{op} = 10$ ). The expected frequency of the nonanxiety scores for these philosophical subjects was 11.61 ( $f_{ep} = 11.61$ ). The chi-square value ( $\chi^2 = 3.88$ ) obtained at one degree of freedom ( $df = 1$ ) is presented with the data in Table 6.

Table 6

Chi-square of Religious and Philosophical  
Group Responses to Anxiety Item 35

	Anxiety		Nonanxiety		Total
	$f_o$ ;	$f_e$	$f_o$ ;	$f_e$	
Religious	0;	1.61	15;	13.39	15
Philosophical	3;	1.39	10;	11.61	13
Total	3		25		28

$$\chi^2 = 3.88; df = 1$$

The obtained chi-square of 3.88 was greater than the tabled value of 3.84 ( $\chi^2 > 3.84$ ) at the .05 level of significance. Since the obtained chi-square of 3.88 did fall within the critical region, the null hypothesis was rejected. Item 35 of the Taylor MAS states: "I am often afraid that I am going to blush". It might be concluded that philosophical subjects show a significantly greater tendency to designate an anxiety response to this item than do religious subjects.

Item 44. "I am happy most of the time". On the basis of the responses made to this statement, the observed frequencies of the anxiety responses for the fifteen religious and thirteen philosophical group members were four ( $f_{or} = 4$ ) and zero ( $f_{op} = 0$ ) respectively. Assuming that there would be no significant difference in the way religious and philosophical subjects responded to this statement, the calculated expected frequencies of the anxiety responses for these groups were 2.14 ( $f_{er} = 2.14$ ) and 1.86 ( $f_{ep} = 1.86$ ) respectively. Similarly, for religious subjects there were eleven nonanxiety responses ( $f_{or} = 11$ ) and an expected frequency of 12.86 ( $f_{er} = 12.86$ ). There were thirteen non-anxiety responses for the philosophical subjects ( $f_{op} = 13$ ) as opposed to an expected frequency of 11.14 ( $f_{ep} = 11.14$ ). In addition, the degrees of freedom ( $df = 1$ ) and the chi-square value ( $\chi^2 = 4.04$ ) are presented in Table 7.

Table 7

Chi-square of Religious and Philosophical  
Group Responses to Anxiety Item 44

	Anxiety		Nonanxiety		Total
	$f_o$ ;	$f_e$	$f_o$ ;	$f_e$	
Religious	4;	2.14	11;	12.86	15
Philosophical	0;	1.86	13;	11.14	13
Total	4		24		28

$$\chi^2 = 4.04; df = 1$$

The obtained chi-square of 4.04 was greater than the tabled value of 3.84 ( $\chi^2 > 3.84$ ) at the .05 level of

significance. Since the obtained chi-square of 4.04 did fall within the critical region, the null hypothesis was rejected. Therefore, it might be concluded that the differences between the theoretically expected and the experimentally observed frequencies are not due to chance. The religious subjects tended to give an anxiety response to this item of the Taylor MAS significantly more often than philosophical subjects, indicating their disagreement with the statement: "I am happy most of the time".

## Chapter 5

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Is there a significant difference in manifest anxiety level between those individuals professing religious belief as opposed to those individuals professing belief in a philosophy of life? The results of this study in the context of the theoretical background, literature review, and potential significance for application are examined in this chapter.

#### SUMMARY

To determine if the religions or philosophies of life to which students subscribe may be associated with lower anxiety states reflective of happiness, the present study divided a random sample of thirty college seniors into three groups: religious subjects, subjects with philosophies of life or codes of ethics, and subjects who subscribed to neither a religion nor a philosophy of life. These seniors completed a survey consisting of the MAS and an original "religious attitude" questionnaire to establish the criterion for the separation of the subjects' anxiety scores.

The data, which were collected over a three day period, was subjected to the "single classification" model

of analysis of variance. Also, the tendency of members of the different groups to respond differently to the various anxiety items was examined by chi-square analysis.

### CONCLUSIONS

Members of the religious group tended to respond differently than philosophical group members on five of the fifty MAS questions. The following statements indicative of anxiety are responses selected significantly more often by religious subjects: I have often felt so many difficulties I could not overcome them; At times I have been worried beyond reason about something that really did not matter; At times I feel that I am going to crack up; I am (not) happy most of the time.

Only on one item did the philosophical subjects show a significantly greater tendency toward an anxiety response: I am often afraid that I am going to blush.

It would appear that religious and philosophical students did show differences in anxiety about ease of embarrassment, facing both trivial and important difficulties, and maintaining an overall feeling of happiness and stability. However, the differences in anxiety over these specific factors were not reflected in significantly different manifest anxiety levels for the religious and philosophical subjects when the mean anxiety scores of these groups were compared by analysis of variance.



It may be that by the separation of all religions and philosophies into two broad groups different levels of anxiety, possibly attributable to the various disciplines within the religious and philosophical groups, might have averaged to produce the insignificant difference.

Another possibility for a lack of significant difference takes into account the differences in definition between religious belief and practice. Perhaps religious belief is an ideal to which an individual strives; but, religious practice is the real or concrete expression toward this goal. While this study dealt only with the subjective religious belief of students, it may be that from the standpoint of anxiety it is not so important what a person believes that determines his adjustment as how consistently he practices or lives up to what he believes.

This is in accord with a "curvilinear relationship" theory proposed by Glass who suggested:

Perhaps the person who devoutly and regularly practices his religion does internalize it to such a degree that it is not necessary to close the mind in a rigid manner to other possible ideologies. Thus, the highly religious person, in terms of practice, is free mentally to be as open as the non-religious person because internalization has reduced the necessity of external rigidity.<sup>82</sup>

It must be concluded that, although there is a tendency for the philosophical group to show lower anxiety

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<sup>82</sup>Kenneth D. Glass, "A Study of Religious Belief and Practice as Related to Anxiety and Dogmatism in College Women" (unpublished Doctor's dissertation, University of Tennessee, 1970), p. 48.

scores, there is no significant difference in manifest anxiety level between those individuals professing religious belief as opposed to those individuals professing belief in a philosophy of life. However, the religious subjects are significantly more likely to show specific anxieties concerning facing both trivial and important difficulties, and maintaining an overall feeling of happiness and stability. The responses of the uncommitted subjects were considered insufficient data to justify comparison with the two larger committed groups. Examining the total results, certainly no group could be said to be significantly "happier."

#### RECOMMENDATIONS

The relation and reconciliation of the conclusions of this study with previous research are complex. Results of studies conducted independently by Brown, Wright, Chambers et al., and Glass support the view of the religiously non-affiliated student having more adjustment problems. However, important experimental assumptions of these studies could have influenced their results. Chambers' interpretation of poor adjustment is linked to an inability to perceive goals and purposes in life. Brown used the MAS as an indicator of anxiety; but, he studied an Australian population classified according to their strength of conviction. The study by Glass employed only junior college women divided according to strength of religious conviction and

practice. Further, Glass did not consider non-religious individuals.

Other researchers such as Rokeach, and Wilson and Miller have indicated that people with formal religious affiliation are more anxious. Rokeach based his conclusions on the premises that anxiety and dogmatism are factorially the same entity; and, anxiety is a cognitive belief system representing a fear of the future. Wilson and Miller used the MAS as the anxiety measure in conjunction with a self rating form of religious practice. Their conclusion that non-religious subjects gave "healthier" responses to that measure was in their own words only a small but reliable tendency.

The remaining studies, notably Wilson and Kawamura, Cutsumbis, and Ranck, support the findings of Funk and the present study that manifest anxiety is unrelated to a belief in a philosophy of life instead of a religion.

Although research to date offers no conclusive clear cut relationship between anxiety and a preference for religion or a philosophy of life, an interesting trend does appear which might reconcile some of the contradictory findings.

Studies examining personality factors of religious and non-religious individuals portray the nonaffiliate as tending to manifest an individualistic orientation related to freedom, social independence, and self sufficiency. Freud, in defense of the psychological value of this orientation,

claimed that as the harsh demands of civilized society full of illusion and discontent frustrate the instincts and drives of individuals, society was not worth committing oneself to. It is irrelevant whether the individual is ever reconciled with society because he is self sufficient and can achieve his own unique integrity without the help of community.<sup>83</sup>

Whether or not one agrees with Freud's view of society, apparently individuals manifesting this kind of independence can achieve integrity on their own, as they show no more anxiety than those religious individuals who appear to be on the opposite end of the "personality spectrum." For the religious individual, who having emerged as possessing a dependent nature and a belief that it is through interaction with others that he can achieve wholeness, is therefore inclined to lean toward the group; and, the religious institution more appropriately satisfies the needs of his philosophical approach to life.

Many researchers have stated that the conflicting research results can be attributed to a third group of individuals who do appear to be less well adjusted. This is the religious individual who is conventionally religious as opposed to devout. Speaking of a possible mechanism which some researchers refer to as a discrepancy between self and ideal-self perception, Glass maintained that ambivalence in

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<sup>83</sup>Freud, loc. cit.

basic religious beliefs and actions may produce more uncertainties and resultant insecurities than being highly religious or non-religious.<sup>84</sup>

This "curvilinear relationship" theory, which proposes that the "marginal man" in the church would manifest poorer adjustment than the devoutly religious or the non-religious individual, implies that from the standpoint of anxiety perhaps it is not so important what a person believes as how consistently he lives up to his beliefs in practice that determines his adjustment.

Perhaps different individuals have difference needs with regard to their style of life and interaction with the environment which may require different philosophical approaches for satisfaction. Not to subscribe to the philosophy which would best satisfy these needs would presumably produce anxiety. Or, more generally, to be happy an individual must be himself. Certainly, the distinction between religious belief and practice should be taken into account in the construction of a design for future research.

The implication of different personality characteristics for conventionally and devoutly religious individuals is just one factor in the problem of the measurement of religious belief. There is some confusion as to the religious variables which have actually been studied. Religious belief

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<sup>84</sup>Glass, op. cit., pp. 6-7.

has been experimentally defined as denomination, practice, participation, strength of conviction, strength of commitment, church attendance, campus religious organization participation, or seminary enrollment. The criteria for classification into these categories includes original scales developed by the researchers, Likert-type scales, and more traditionally employed scales: The Dimensions of Religious Commitment of Glock and Stark; Thouless' Questionnaire of Strength of Belief; Thurstone's Scale of Attitude Toward the Church; Ligon's Religious Participation Questionnaire; and a religious liberal-conservative belief scale of Brown and Lowe.

There are inherent pitfalls associated with these definitions. Measures of actual behavior may be influenced by variables other than religiousness. Religious group membership may not necessarily be related to attitude or behavior. Methods that utilize the role that religion plays in an individual's life or its basis in his experience may produce results distorted by the self report nature of the data collection.

Even after arriving at a satisfactory definition of religion, classification of individuals into religious or non-religious categories has major limitations. If each of the various philosophies are associated with specific ranges of anxiety, some of the disciplines within each of the broad religious and philosophical categories might contribute higher scores while others are associated with lower scores. These intra-group differences, when averaged, might result in

mean anxiety scores for the religious and philosophical groups which do not differ significantly. Therefore, it is worthwhile to consider the evaluation of the anxiety levels of each different discipline separately.

Another problem in the research of this topic is the wide divergence in measures of anxiety chosen by the experimenters. Previous research has focused on definitions which include guilt, need satisfaction, goal perception, neuroticism, self actualization, security, and dogmatism. The various scales used include Rokeach's D-Scale, the MMPI, the Pressey Test, the Bernreuter Inventory, the Bell Inventory, Eysenck's Neuroticism Scale, the Picture Identification Test based on the Murray Need System, the Personal Orientation Inventory of Shostrom, the semantic differential, the Mooney Problem Checklist, the Cattell and Scheier Self Analysis of Anxiety, Galvanic Skin Response, the MAS, and Lynn's scale based on reactivity of the sympathetic nervous system.

One consideration for future research in determining an appropriate measure to reflect happiness is the assumption of whether a more accurate representation of this variable is trait or state anxiety. In any case, the need to conduct research concerning adjustment by a single measure is obvious to avoid both the redundancy and confusion which have resulted.

The results of this study might also have been affected because the subjects were not differentiated according to sex. Since the Taylor MAS has been criticized by some investigators as producing sex differentiated scores, it is

possible that large within group variance of anxiety levels possibly attributable to sex differences in anxiety might have contributed to the insignificant differences between the religious and philosophical groups. If there are inherent differences in anxiety levels for men and women, this might be a cultural phenomenon which would have had a great influence on the results of previous studies.

A related issue to be considered concerns the notion that certain racial groups traditionally tend to adopt specific religious beliefs. Since it has been shown that racial differences in anxiety do exist, it is possible that anxiety scores determined for religious groups reflect anxiety actually attributable to racial differences.

In considering the fruitfulness of this and future studies, it is important to take into account that the "religious attitude" questionnaire constructed for this study was based upon two assumptions. Findings by Brown that religious belief has as its best correlation institutionalization gave rise to the assumption that a basic difference between the religious and the philosophical individual is the tendency toward institutional acceptance of the former. The second premise was that an ethical individual, while rejecting the tenets of the church, may both observe and practice its ethical teachings. Although there is support for the former, the latter hypothesis remains to be sufficiently tested.

There were no indications that the "religious attitude" questionnaire failed to classify subjects as being



religious or philosophical in their approach to life. However, a comment offered by other researchers suggests that results of such studies could probably be strengthened to some degree by not being totally dependent upon the questionnaire or self report research technique.

It is important that future research focus upon both of these issues of ideological content of religious belief and institutional attitudes. It might be that through the relationship of religious belief to institutional acceptance, studies which have related anxiety to religious belief were really measuring anxiety differences related to the capacity for institutional acceptance of the members of the groups. Whether or not one is part of an institution may not be as important a determinant of his anxiety as his attitude of acceptance of that institution.

The importance of research in this area is justified by the tremendous influence of institutions in shaping the values of masses of individuals. Widespread institutionalized socialization of negative values such as anxiety could be unwittingly encouraged and transmitted in the form of doctrine significantly affecting the general level of anxiety of an entire population.

Furthermore, the inclusion in future research of non-college individuals of college age from all socioeconomic classes might eliminate or minimize such anxiety related variables as financial status, intelligence, and education. The effect of geographic factors, such as climate, which might

be related to possible environmental determinants of anxiety should also be examined. Considerations such as these would make results of research in the area of adjustment relevant to the entire cross cultural population of the United States.

In addition, longitudinal study would give a more meaningful answer to the causality question of whether religious belief or practice actually changes the anxiety level of the individual. Might it be possible to measure or assess an individual before and after the origin of religious beliefs and practices in an attempt to determine if changes in anxiety do occur?

Though contributions in this and related areas, such as the determination of the mechanism of the acquisition of religious belief, would undoubtedly clarify many of the issues, this author must conclude that the relationship of an individual's adjustment to his philosophical approach to life remains at this time a complex and largely speculative phenomenon.

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APPENDIX A

BELIEF SURVEY AND BIOGRAPHICAL INVENTORY

## BELIEF SURVEY

Read carefully each of the following three statements before coming to any conclusion. Then, circle the number of the statement that most closely describes your beliefs.

1. I have beliefs about the ideal relationships among individuals, their environment, and a supernatural being or equivalent. I practice these beliefs in the manner prescribed by a group.
2. I have beliefs which guide me toward a consistent mode of interaction with the environment. I practice these beliefs independently without reference to group beliefs.
3. I have no well developed beliefs which serve as a guide toward a consistent mode of interaction with the environment.

## BIOGRAPHICAL INVENTORY

Please answer the following questions either true (T) or false (F) as they apply to you.

1. I am often sick to my stomach. . . . . ( )
2. I am about as nervous as other people. . . . . ( )
3. I work under a great deal of strain. . . . . ( )
4. I blush as often as others . . . . . ( )
5. I have diarrhea ("the runs") once a month or more. ( )
6. I worry quite a bit over possible troubles . . . . ( )
7. When embarrassed I often break out in a sweat which is very annoying . . . . . ( )
8. I do not often notice my heart pounding and I am seldom short of breath . . . . . ( )
9. Often my bowels don't move for several days at a time . . . . . ( )
10. At times I lose sleep over worry . . . . . ( )
11. My sleep is restless and disturbed . . . . . ( )
12. I often dream about things I don't like to tell other people . . . . . ( )
13. My feelings are hurt easier than most people . . . ( )
14. I often find myself worrying about something . . . ( )
15. I wish I could be as happy as others . . . . . ( )
16. I feel anxious about something or someone almost all the time . . . . . ( )

17. At times I am so restless that I cannot sit in a chair very long. . . . . ( )
18. I have often felt that I faced so many difficulties I could not overcome them . . . . . ( )
19. At times I have been worried beyond reason about something that really did not matter . . . . . ( )
20. I do not have as many fears as my friends. . . . . ( )
21. I am more self-conscious than most people. . . . . ( )
22. I am the kind of person who takes things hard. . . . . ( )
23. I am a very nervous person . . . . . ( )
24. Life is often a strain for me. . . . . ( )
25. I am very confident of myself. . . . . ( )
26. I am not at all confident of myself. . . . . ( )
27. I do not tire quickly. . . . . ( )
28. At times I feel that I am going to crack up. . . . . ( )
29. I don't like to face a difficulty or make an important decision . . . . . ( )
30. I have very few headaches. . . . . ( )
31. I cannot keep my mind on one thing . . . . . ( )
32. I worry over money and business. . . . . ( )
33. I frequently notice my hand shakes when I try to do something . . . . . ( )
34. I practically never blush. . . . . ( )
35. I am often afraid that I am going to blush . . . . . ( )
36. I have nightmares every few nights . . . . . ( )
37. My hands and feet are usually warm enough. . . . . ( )
38. I sweat very easily even on cool days. . . . . ( )
39. I feel hungry almost all the time . . . . . ( )
40. I have a great deal of stomach trouble . . . . . ( )
41. I am easily embarrassed. . . . . ( )
42. I am usually calm and not easily upset . . . . . ( )
43. I cry easily . . . . . ( )
44. I am happy most of the time. . . . . ( )
45. It makes me nervous to have to wait. . . . . ( )
46. Sometimes I become so excited that I find it hard to get to sleep. . . . . ( )
47. I have been afraid of things or people that I know could not hurt me . . . . . ( )
48. I certainly feel useless at times. . . . . ( )
49. I find it hard to keep my mind on a task or job. . . . . ( )
50. At times I think I am no good at all . . . . . ( )

APPENDIX B

ANXIETY RESPONSES BY ITEM

ANXIETY RESPONSES BY ITEM

Item #	Religious	Philosophical	Uncommitted	Item #	Religious	Philosophical	Uncommitted
1				31	4	1	0
2	2	0	0	32	9	4	2
3	3	5	0	33	3	1	0
4	3	3	0	34	9	7	2
5	0	4	1	35	0	3	0
6	10	2	0	36	3	3	0
7	4	2	0	37	3	4	0
8	6	6	0	38	3	5	0
9	2	2	0	39	5	2	0
10	7	5	1	40	4	2	1
11	3	1	0	41	2	0	0
12	2	3	0	42	5	5	0
13	2	3	0	43	4	1	0
14	5	3	1	44	2	1	0
15	9	7	1	44	4	0	1
16	3	1	1	45	10	7	1
17	7	3	1	46	9	6	1
18	7	7	2	47	5	2	1
19	5	0	1	48	11	6	1
20	11	4	0	49	3	0	0
21	8	5	1	50	5	1	0
22	10	8	1				
23	7	5	0				
24	5	3	0				
25	3	1	0				
26	8	4	2				
27	3	2	0				
28	7	3	1				
29	8	1	0				
30	5	4	0				
	5	1	0				
					=265	=158	=25
					N =15	N =13	N =2
					$\bar{X}_A=17.65$	$\bar{X}_A=12.15$	$\bar{X}_A=12.50$
					Sample $\bar{X}_A=14.93$		