8

Mental Health or Sickness?

Consider the case of a popular, slightly spoiled young man from an upper-middle-class family. In adolescence the young man becomes well known in his community for his fashionable, flashy clothes and his enthusiasm for partying with his friends. But as he grows a little older, he comes under the influence of religion. He gives up partying because he takes his religious beliefs very seriously. Indeed, he takes them so seriously that he becomes intensely dissatisfied with the materialism around him and starts giving away his possessions. He even gives a religious group a large sum of his father's money. His father tries to deal with these disturbing developments by confining the boy to the house, hoping to bring him to his senses. When this fails, the angry and exasperated father subjects his son to severe physical punishment, again without effect.

Finally, the father brings his son into court to recover the money. When the young man is ordered to return his father's money, he does so. But in

protest he also gives back everything else that his parents have given him, including the clothes he is wearing. He then walks out of the court and through the streets, naked. Later, the young man becomes part of a religious sect whose members support themselves by begging, and he never returns to life in normal society.

Would you say that for this young man religion encouraged mental health or sickness? You may find it hard to say. An answer would, perhaps, be easier if you were told that the religion by which he was influenced was the Hare Krishnas or the Unification Church of the Reverend Sun Myung Moon. But this would not be true. The religion was Catholicism, and the young man was a well-known Catholic saint. The description is of the early life of Saint Francis of Assisi (1182–1226).

The case of Saint Francis suggests how difficult it can be to determine whether religion is a force for mental health or for sickness. Saint Francis acted in ways that may seem to suggest mental illness, and yet he has been called one of the most psychologically whole, healthy people who ever lived (see Sabatier, 1904). Clearly, the relationship between religion ahd mental health can be both complex and confusing. And, unfortunately, when we turn to the experts for some clarity, they only magnify the confusion.

EXPERTS' VIEWS OF THE RELATIONSHIP BETWEEN RELIGION AND MENTAL HEALTH

James's Dualistic View: Sick-Souled Versus Healthy-Minded Religion

William James found it necessary to distinguish between two different forms of religion and two related personality types when describing the relationship between religion and mental health. He suggested that one form of religion is closely tied to psychopathology; this form he called the twice-born religion of sick-souled individuals.

> The securest way to the rapturous sorts of happiness of which the twice-born make report has as an historic matter of fact been through a more radical pessimism than anything that we have yet considered. . . . For this extremity of pessimism to be reached, something more is needed than observation of life and reflection upon death. The individual must in his own person become the prey of a pathological melancholy. . . . Such sensitiveness and susceptibility to mental pain is a rare occurrence where the nervous constitution is entirely normal; one seldom finds it in a healthy subject even where he is the victim of the most atrocious cruelties of outward fortune. So we note here the neurotic constitution . . . destined to play a part in much that follows. (1902, p. 124)

James saw religion as an important, possibly essential, source of health in the lives of at least some sick-souled individuals. He saw such effects in the life of Tolstoy, among others.

But James also recognized that a quite different relationship between religion and mental health could exist. For those whom he called healthy-minded, religion was associated with a marked absence of signs of pathological melancholy. Consider, for example, the statement of a healthy-minded Unitarian preacher.

> I observe, with profound regret, the religious struggles which come into many biographies, as if almost essential to the formation of the hero. I ought to speak of these, to say that any man has an advantage, not to be estimated, who is born, as I was, into a family where the religion is simple and rational; who is trained in the theory of such a religion, so that he never knows, for an hour, what these religious or irreligious struggles are. . . . I can remember perfectly that when I was coming to manhood, the half-philosophical novels of the time had a deal to say about the young men and maidens who were facing the "problem of life." I had no idea whatever what the problem of life was. To live with all my might seemed to me easy; to learn where there was so much to learn seemed pleasant and almost of course; to lend a hand, if one had a chance, natural; and if one did this, why, he enjoyed life because he could not help it, and without proving to himself that he ought to enjoy it. (Starbuck, 1899, pp. 305–306)

Psychotherapeutic Views: Looking below the Surface

Freud. This Unitarian preacher's relaxed and natural expression of religion certainly appears psychologically healthy. But in the realm of mental health and illness it is easy to be deceived by appearance. Sigmund Freud made this point forcefully with his careful analysis of pathological symptoms and dreams. And Freud did not hesitate to suggest that mankind was being deceived by religion. For him, religion was not only associated with mental illness, it *was* mental illness; he called it a "universal obsessional neurosis of humanity":

> Like the obsessional neurosis of children, it [religion] arose out of the Oedipus complex, out of the relation to the father. . . . If, on the one hand, religion brings with it obsessional restrictions, exactly as an individual obsessional neurosis does, on the other hand it comprises a system of wishful illusions together with a disavowal of reality, such as we find in an isolated form nowhere else but in . . . a state of blissful hallucinatory confusion. . . .
>
> It has been repeatedly pointed out (by myself and in particular by Theodor Reik) in how great detail the analogy between religion and obsessional neurosis can be followed out, and how many of the peculiarities and vicissitudes in the formation of religion can be understood in that light. And it tallies well with this that devout believers are safeguarded in a high degree against the risk of certain neurotic illnesses; their acceptance of the universal neurosis spares them the task of constructing a personal one. (1964, pp. 71–72)

Only through the therapeutic experience of "education to reality" (see Chapter 2) did Freud hold out hope that mankind could be cured from this

religious neurosis. For him the answer was clear: Religion was associated with mental illness, not mental health.

Jung. For Freud's most famous student, colleague, and eventual rival, Carl Jung, the answer was quite different. Jung considered religion necessary for mental health. Jung was a minister's son, and he found that among his thousands of patients in the second half of life, that is, over the age of thirty-five, "there has not been one whose problem in the last resort was not that of finding a religious outlook on life" (1933, p. 229).

> Man positively needs general ideas and convictions that will give a meaning to his life and enable him to find a place for himself in the universe. He can stand the most incredible hardships when he is convinced that they make sense; he is crushed when, on top of all his misfortunes, he has to admit that he is taking part in a "tale told by an idiot." It is the role of religion to give a meaning to the life of man. (Jung, 1964, p. 89)

Allport. Gordon Allport, like Jung, considered religion to be a potentially important contributor to mental health. Noting the shift in our society away from seeking help for personal problems through religion and toward seeking help through psychotherapy, Allport observed:

> The single fact that weighs against this wholly secular solution is the ever insistent truth that what a man believes to a large extent determines his mental and physical health. What he believes about his business, his associates, his wife, his immediate future, is important; even more so, what he believes about life in general, its purpose and design. Religious belief, simply because it deals with fundamentals, often turns out to be the most important belief of all. (1950, p. 79)

Even though Allport believed that religion had often failed to actualize its insights, he contended that religion "is superior to psychotherapy in the allowance it makes for the affiliative need in human nature" (1950, p. 82). Religion focuses on the important human need for love and relationship to a degree that psychotherapy does not.

Boisen. Anton Boisen was a minister and therapist who had himself experienced schizophrenic madness, which he described as "of the most profound and unmistakable variety" (1960, p. 9). Like Freud, Boisen recognized a link between religion and mental illness. But he considered the link to be far more positive than did Freud. Boisen believed that psychosis is a potentially health-giving, essentially religious experience because psychosis often involves an attempt to deal with one or more ultimate, existential concerns (Boisen, 1936). Although a psychotic break could destroy the person, it could also provide the context for the person to reconstruct his or her reality in a positive, healing way. Boisen was convinced that his own psychosis served this therapeutic, religious function: "It was necessary for me to pass through the purgatorial fires of horrifying psychosis before I could set foot in my promised land of creative activity" (1960, p. 208).

Bergin; Ellis. The debate among psychotherapists about the association between personal religion and mental health has not subsided in recent years. Allen Bergin (1980a; 1991) lamented the lack of attention paid by psychologists to the potential therapeutic value of religion, and strongly affirmed his own positive view: "I believe that religion can be powerfully benevolent" (1980b, p. 643). In response, Albert Ellis (1980) hypothesized:

> Devout, orthodox, or dogmatic religion (or what might be called religiosity) is significantly correlated with emotional disturbance. People largely disturb themselves by believing strongly in absolutistic shoulds, oughts, and musts. . . . The devoutly religious person tends to be inflexibly closed, intolerant, and unchanging. Religiosity, therefore, is in many respects equivalent to irrational thinking and emotional disturbance. (p. 637)

Clearly, the views of psychotherapists on the relationship between religion and mental health cover a very wide spectrum. They run the gamut from the contention of Freud and Ellis that religion is a form of mental illness, through the contention of Boisen that mental illness is potentially religious, to the contentions of Jung, Allport, and Bergin that religion, conceived broadly, either can or must be a powerful contributor to mental health. Nor does the matter become clearer when we turn to the views of more empirically oriented psychologists. Three major reviews of the empirical evidence appeared around 1970, but they too covered a wide spectrum.

Empirically Based Views: Looking at the Data

Becker. Russell Becker concluded from his review of studies examining the relationship between religion and mental health that the relationship is positive: "The absence of mental illness and neurotic symptoms does have certain favorable correlations with religious identity and activity" (1971, p. 415). But Becker qualified this conclusion by noting that "the attempt to find detailed points of relationship between positive psychological traits and religion has produced very few clues" (1971, p. 415).

Dittes. At the other end of the empirical spectrum is James Dittes. By no means an opponent of religion, Dittes felt compelled to organize his review of the empirical evidence "around the general supposition that religion is associated with deficiencies of personality, with a 'weak ego' or 'constricted ego'" (1969, p. 636). He felt it was necessary to adopt this supposition because:

> The psychological research reflects an overwhelming consensus that religion (at least as measured in the research, usually institutional affiliation or adherence to conservative traditional doctrines) is associated with awareness of personal inadequacies, either generally or in response to particular crisis or threat situations; with objective evidence of inadequacy, such as low intelligence; with a strong responsiveness to the suggestions of other persons or other external influences; and with an array of what may be called desperate and generally unadaptive defensive maneuvers. (Dittes, 1969, p. 636)

Sanua. Finally, Victor Sanua (1969) took a far less controversial stance after his review of the available empirical research; he declined to draw any clear conclusion:

> What may be said at this point is that a substantial number of additional empirical findings would be necessary before any valid conclusions could be drawn as to the relationship between religiousness and mental health. (p. 120; similarly, see Lea, 1982)

Who is right about the relationship between religion and mental health? Apparently not everyone can be because regardless whether we turn to therapists or researchers, we are offered a range of views, and at least some of the views are diametrically opposed. Instead of relying on the opinions of the experts, it seems that we must turn to the evidence and try to sort it out for ourselves. This is not an easy task, for the evidence forms a large and tangled mass. If we are to have any success making sense of it we need to have a clear idea of what we are about. Most important, we need a clear idea of what we mean by mental health.

SEVEN DIFFERENT CONCEPTIONS OF MENTAL HEALTH

Defining mental health is not easy. Think back to the case of Saint Francis of Assisi. He, like Thoreau, marched to the sound of a different drummer. But was his noncomformity a sign of mental illness or of unusual mental health? An answer will vary depending on our conception of mental health. If, for example, we conceive of mental health in terms of social adjustment and the absence of bizarre behavior, we might pronounce Saint Francis sick. If, instead, we conceive of mental health in terms of the ability to reach a higher level of self-expression that transcends social convention, we would probably consider him very healthy. Recognizing this variety of conceptions adds considerably to the complexity and confusion surrounding interpretations of the relationship between religion and mental health. It also suggests an explanation for all the disagreement. If different psychologists mean different things when they refer to mental health, then it is not surprising that they do not agree on the relationship between religion and mental health.

Different psychologists, working within different traditions and settings, do indeed appear to mean different things by mental health. Based on our review of well over one hundred articles examining the relationship between religion and mental health, we have been able to identify seven distinct conceptions.

1. Absence of Mental Illness

The most straightforward conception of mental health is simply the absence of mental illness; this is the legal definition. If you show none of the identifiable symptoms of psychopathology listed in the Diagnostic and Statistical Manual of the American Psychiatric Association (DSM III-R), then you are

mentally healthy or "normal." You may be filled with tension, anxiety, and guilt, but you are healthy, at least in court. This first conception and the next two define mental health negatively; rather than specifying what it is, they specify what it is not.

2. Appropriate Social Behavior

Viewing mental health as appropriate social behavior is popular among some psychologists, especially behavior therapists and social learning theorists (e.g., Bandura, 1969). The popularity of this view is understandable. First, a person is not likely to become a candidate for psychotherapy unless he or she is displaying some inappropriate behavior. Second, using such a conception, mental health and illness are relatively easy to detect.

But this conception also has limitations. Most obviously, it provides a culturally relative and, within a given culture, a conservative definition of mental health. Behavior that is considered appropriate in one society may be inappropriate in another. To present an extreme example, in Nazi Germany it was considered inappropriate *not* to assist in the extermination of Jews, so according to an appropriateness definition, refusal to assist was a sign of potential mental illness; assistance was a sign of mental health. Of course, from the perspective of our society it was the mild-mannered, cooperative Eichmann who was sick.

3. Freedom from Worry and Guilt

Psychoanalysts typically conceive of mental health as freedom from psychological conflict, anxiety, and guilt. As noted in Chapter 3, Freud specified the ability "to love and to work" as the hallmark of mental health, and he devoted most of his energy to unearthing factors that inhibit this ability. For it to flower, the choking weeds of guilt and anxiety must be removed. The emphasis within psychoanalysis on this conception of mental health seems to be, at least in part, a product of the types of clients that psychoanalysts have typically treated—middle- and upper-class neurotics tortured by self-doubt and a lack of sense of purpose.

One of the clearest and most insightful statements of this conception of mental health comes from Karen Horney (1951). She suggested that neurotic conflicts usually arise from the adoption by an individual of an idealized view of what he or she should be (the ideal self), a view that makes what the individual knows that he or she is (the real self) seem horribly inadequate. The result is self-hate, self-effacement, and other forms of reality distortion. Therapy involves freeing the client from the grip of this unrealistic ideal self, allowing acceptance of the real self and freedom from neurotic anxiety, worry, and guilt.

In recent years, psychologists have tended to focus on positive personality characteristics as well as on the absence of negatives when defining mental

health. The next four conceptions are a product of this focus on the positive.

4. Personal Competence and Control

Emphasis on a sense of personal competence as an aspect of mental health grew out of a revolution in psychological theories of motivation. Both psychoanalytic and behaviorist theories assume that tension reduction lies at the heart of all human motivation. If the individual is not uncomfortable in some way, he or she will not be motivated. In the 1950s, this assumption was exploded by research on curiosity and puzzle solving; it was found that well-fed, contented animals will work at puzzles for long hours without any extrinsic reward, and they will expend considerable energy just to have a look at a different environment.

Reflecting on the implications of such research, Robert White (1959) postulated a need for competence; he suggested that organisms need to have a sense that they can deal effectively with their environment, that they are in control. A number of other psychologists have also emphasized the importance of a sense of competence or control for mental health: Alfred Adler (1956) spoke of the will to power; both Julian Rotter (1954) and Richard deCharms (1968) made a distinction between having an internal (personal) as opposed to external (environmental) locus of control, and Frank Barron (1953) developed a measure of ego strength, a sense of inner control that seems important in determining positive responses to psychotherapy. Conversely, Martin Seligman (1975) has suggested that a sense of helplessness or lack of personal control is an important component of psychological depression.

5. Self-Acceptance or Self-Actualization

Carl Rogers (1951) suggested that self-acceptance is a crucial component of mental health. Like Karen Horney, Rogers believed that at the heart of most neuroses lies a discrepancy between the person's view of who he or she is and who he or she should be. Health is found in being able to accept oneself as one is.

Abraham Maslow (1954) went beyond the concept of self-acceptance to speak of self-actualization, the ability freely to express one's true nature.

> All trees need sunlight and all human beings need love, and yet, once satiated with these elementary necessities, each tree and each human being proceeds to develop in his own style, uniquely, using these universal necessities to his own private purposes. In a word, development then proceeds from within rather than from without, and paradoxically the highest motive is to be unmotivated, i.e., to behave purely expressively. Or, to say it in another way, self-actualization is growth motivated rather than deficiency motivated. (Maslow, 1954, p. 183)

Maslow believed that self-actualization defined the apex of psychological health. He also believed that only a small percentage of the population is truly self-actualized; the rest of us approach this zenith in differing degrees.

As Maslow spoke of it, self-actualization was an enticing yet rather vague and mysterious concept. Everett Shostrom (1964) sought to remove some of the mystery by providing a paper-and-pencil measure of self-actualization, the Personal Orientation Inventory. This instrument has been used with some success to identify individuals who fit Maslow's conception of self-actualization. Often, however, the POI is administered to samples of undergraduates or young adults. It is less clear that it can or should be expected to detect differences in self-actualization in these relatively homogenous groups.

6. Personality Unification and Organization

Gordon Allport conceived of the healthy, mature personality in terms of a unified and hierarchically organized personality structure. In his classic work on personality in 1937, Allport defined personality as "the dynamic organization within the individual of those psychophysical systems that determine his unique adjustments to his environment" (p. 48). Within the healthy, mature individual, these systems are organized hierarchically; there is a central one, and others are arranged in subordination to it. Allport felt that

> a mature personality always has some unifying philosophy of life, although not necessarily religious in type, nor articulated in words, nor entirely complete. But without the direction and coherence supplied by some dominant integrative pattern any life seems fragmented and aimless. (1950, p. 53)

Allport believed that religion and psychotherapy were aligned in their concern for personality unification:

> Religion and therapy are alike in their insistence upon the need for greater unification and order in personality. Both recognize that the healthy mind requires an hierarchical organization of sentiments, ordinarily with one master-sentiment holding the dominant position. . . . In principle, the religious interest, being most comprehensive, is best able to serve as an integrative agent. (1950, pp. 79, 92)

7. Open-Mindedness and Flexibility

Social psychologists such as Adorno et al. (1950) and Rokeach (1960) and rational-emotive psychotherapists such as Ellis (1980) have stressed the importance for mental health of being able to adapt to new information and to new experiences. The individual who responds openly and flexibly is considered more psychologically healthy than the individual who is closed-minded and rigid. The closed-minded individual blocks out new information, refusing to adjust his or her view of reality in its light. Over time, such

closed-mindedness can leave the individual living in a reality of illusion that is quite divorced from his or her experience.

Harvey, Hunt, and Schroder (1961) offered a detailed analysis of the psychological importance of open-mindedness and flexibility. They identified four discriminable personality systems, progressing from extremely concrete and rigid to highly abstract and flexible. And they suggested that increases in openness and flexibility are a result of increases in differentiation and integration (i.e., complexity) of the individual's cognitive structures. Thus, their emphasis on open-mindedness and flexibility as components of mental health involves an emphasis on personal creativity of the sort discussed in Chapter 4.

EMPIRICAL EVIDENCE OF A RELATIONSHIP BETWEEN MENTAL HEALTH AND AMOUNT OF RELIGIOUS INVOLVEMENT

With these seven different conceptions of mental health before us, we can turn to the task of trying to sort out the empirical evidence concerning the relationship between mental health and religion. In the vast majority of studies, the question asked has been: Is being more religious associated with greater mental health or with greater sickness? Although this question may seem quite straightforward, it actually contains two restricting assumptions. First, religion has been considered quantitatively; at issue is the *amount* of religious involvement. Amount of involvement has, in turn, been measured empirically in a number of different ways: (1) having versus not having some religious affiliation; (2) frequency of attendance at religious services; (3) amount of reported interest in religion; (4) stength of religious attitudes; (5) strength of religious values; and (6) strength of orthodox religious beliefs. In many studies a number of possible correlates of mental health are measured, not just religion. And when, as is often true, the relationship to religion is not a focal concern of the study, the measures of religious involvement can be rather crude. To provide just one example, in the research reported by von Hentig (1948) involvement was measured by whether a criminal did or did not report having some church affiliation at the time that he was booked.

Second, the question asked is one of association between religion and mental health, not causation. As a result, the findings can provide only a partial answer to our question of whether religion leads to mental health or sickness. If religion causes health, there should be a positive correlation between measures of religion and mental health. Therefore, if we do *not* find such a correlation, we have evidence that religion does not cause health. Yet even if we do find such a correlation, this does not provide clear evidence that religion causes health; it only provides evidence consistent with this possiblity. Such a correlation is also consistent with other possiblities—that mental health leads to more religious involvement or that some other variable or variables (e.g., stable family structure, intelligence, sociability)

causes both. (See Appendix for further discussion of the problems involved in using correlation data to assess the validity of causal hypotheses.)

The Empirical Evidence

What, then, does the available research tell us about the correlation between amount of religious involvement and mental health? We have collected 115 findings based on ninety-one different studies that provide empirical evidence relevant to this question. To discuss each of these ninety-one studies in any detail would not be feasible, nor would it be very helpful; the general contours of the forest would almost certainly be obscured by the overwhelming number of individual trees. We have, therefore, summarized the findings of these studies in tabular form. We have also developed a "line score" table that presents the number of times that one or another relationship between mental health and amount of religious involvement has been found. The findings, grouped by conception of mental health, are summarized in Table 8.1, and the line score is presented in Table 8.2.[1]

Although we encourage you to look over the summaries in Table 8.1 to get a flavor of the type of research that has been done, we shall move directly to the line score in Table 8.2. When we look at the line score for the relationship between amount of religious involvement and mental health, several points stand out. First, if we ignore differences among the seven different conceptions of mental health and just look at the totals across the bottom of the table, the relationship between religious involvement and mental health seems weak, but, if anything, it appears to be *negative* rather than positive. Forty-seven findings are of a negative relationship; thirty-seven are of a positive relationship; and thirty-one show no clear relationship. It must be emphasized, however, that many of the statistically significant relationships—especially the positive ones—are very weak. Correlations are rarely above .20, which means that the association with the measure of religion is accounting for less than 5 percent of the variance in the measure of mental health. Still, looking at the empirical evidence in this global way, it appears that religion is, if anything, associated with mental illness more than with mental health.

If we take a closer look, we find that we must qualify this sweeping conclusion. We find that the evidence suggests a negative relationship between amount of religious involvement and three of our seven conceptions of mental health: personal competence and control, self-acceptance or self-actualization, and open-mindedness and flexibility. The evidence also sug-

1. Although the list of studies in Table 8.1 is long, it is by no means exhaustive. To the best of our knowledge, however, it includes all major studies and is an accurate reflection of the existing empirical evidence as a whole. In compiling these tables, we were greatly helped by the reviews of research on religion and mental health provided by Argyle and Beit-Hallahmi (1975), Dittes (1969), Sanua (1969), and Spilka and Werme (1971). The uneven quality of research methods in these studies makes a formal meta-analysis inappropriate. See Cooper & Lemke, 1991, and other articles in the special issue of *Personality and Social Psychology Bulletin*, 1991, *17*(3), "Meta-Analysis in Personality and Social Psychology."

Table 8.1 Summary of research examining the relationship between mental health and amount of religious involvement

Authors	Sample population	Measure of religion	Measure of mental health	Findings
1. Using absence of illness as the criterion of mental health				
Schofield and Balian (1959)	Matched groups of 178 schizophrenics and 150 nonschizophrenics	Church attendance in childhood	Schizophrenic diagnosis	Nonsignificant tendency for schizophrenics to have attended less ($p <$ .10)
Roe (1956)	Seminary students and students of other professions	Seminary student status	Neuroticism	Seminary students more neurotic than students of other professions
Gurin, Veroff, and Feld (1960)	Survey of 2460 U.S. adults	Frequency of church attendance	Self-report of mental health adjustment (including job and marital happiness)	Positive relationship
Brown (1962)	203 Australian university students	Intensity of religious belief	Neuroticism	No significant correlation ($r = -.07$)
Srole et al. (1962)	Adults in midtown Manhattan, New York	Self-report of importance of religion	Self-report of psychiatric impairment	Less pathology among more religious, except among upper-class Protestants
Webster (1967)	191 Protestant seminarians	Seminarian status	MMPI	Seminarians poorer in mental health than nonclergy
Mayo, Puryear, and Richek (1969)	166 college students (67 males, 99 females)	Self-report as religious	Absence of depression as measured by the MMPI	For males, being religious was positively associated with absence of depression; no clear relationship for females
Stark (1971)	Survey of 1976 U.S. adults	Church attendance, orthodoxy	Self-report of psychiatric impairment	Both church attendance and orthodoxy were associated with less impairment
Comstock and Partridge (1972)	1963 Washington County census (western Maryland)	Church attendance	Absence of physical disease	Higher church attendance associated with less heart disease, emphysema, cirrhosis, tuberculosis, cancer of the cervix

Table 8.1 Summary of research examining the relationship between mental health and amount of religious involvement (*Continued*)

Authors	Sample population	Measure of religion	Measure of mental health	Findings
Comstock and Partridge (1972)	1963 Washington County census (western Maryland)	Church attendance	Recuced likelihood of suicide	Higher church attendance associated with lower suicide rate (.45 suicides per 1000 for frequent attenders, .95 per 1000 for infrequent attenders)
Hood (1974)	114 undergraduates	Index of intense religious experience	Index of Psychic Inadequacy	Intense religious experience more frequent among those scoring low on psychic inadequacy (i.e., those showing greater adequacy)
Hadaway (1978)	2164 adults in U.S. national survey	Frequency of church attendance, self-reported "religious mindedness"	Self-report of personal well-being or life satisfaction	Both religion measures had low but significant positive correlations with reported well-being ($rs = .12$ and $.17$, $p < .001$)
Steinitz (1980)	1493 persons aged 65 or older in U.S. national survey	Frequency of church attendance, strength of religious affiliation, belief, and confidence	Self-report of happiness and satisfaction	No consistent positive relation except for church attendance, for which relation appeared to be effect of physical health permitting attendance
Francis et al. (1981a,b)	1088 15- and 16-year olds in England	Francis's Attitude Towards Religion scale	Junior Eysenck Neuroticism and Extraversion scales	No reliable relationship between religiosity and neuroticism when sex difference was controlled; low but significant negative correlation with extraversion ($r = -.15$, $p < .001$)
Thoits (1982)	1095 adult men and women in New Haven Connecticut	Frequency of church attendance	Vulnerability to undesirable life events and negative health events	Attendance not associated with vulnerability to undesirable life events but associated with reduced adverse reaction to health events

Stack (1983)	U.S. National Center for Health Statistics (Data on U.S. as a whole from 1954 to 1978)	Frequency of church attendance in U.S. during year	Suicide rate in U.S. during year	Over years, church attendance has decreased and suicide rate has increased (especially among those under age 30)
St. George and McNamara (1984)	3877 white and 449 black adults in U.S. national survey	Frequency of church attendance; strength of religious affiliation	Self-reported happiness and satisfaction	For whites, relation weak; for black, religion positively associated with reported well-being
Petersen and Roy (1985)	318 citizens of Memphis, Tennessee, in telephone interview	Frequency of church attendance, self-reported importance of religion	Self-report of meaning and purpose in life	Both religion measures were positively correlated with reported meaning and purpose (rs = .19 and .25, $p < .01$)
Levin and Markides (1986)	1125 young, middle-aged, and elderly Mexican-American adults in San Antonio, Texas	Frequency of attendance at religious services; self-rated religiosity	Self-report of health	Frequency of attendance had low positive correlation with self-reported health, but relation disappeared when physical capacity was controlled; no relation for self-rated religiosity
Pollner (1989)	Approximately 2000 adults in U.S. national survey	Self-reported closeness to God and frequency of prayer and church attendance	Self-reported happiness, life excitement, and life satisfaction	Positive correlations between measures of religious involvement and measures of happiness and satisfaction ($ps < .01$)
Pargament et al. (1990)	586 members from 10 midwestern churches	Self-reported frequency of church attendance and prayer	Self-reported general health; perception of having handled a negative life event well	Frequency of attendance and prayer had low positive correlations with perceptions ($.10 < r < .15$); no relation to general health
Ross (1990)	401 adults in Chicago area	Self-reported strength of religious belief	Self-report of fewer symptoms of depression and anxiety in past year	Among believers, strength of belief was positively correlated with reporting fewer symptoms; nonreligious reported fewest symptoms but not significantly fewer than strong believers

Table 8.1 Summary of research examining the relationship between mental health and amount of religious involvement (*Continued*)

Authors	Sample population	Measure of religion	Measure of mental health	Findings
Schwab and Petersen (1990)	115 women and 91 men in Hamburg, Germany	Questionnaire measure of belief in God and of religious commitment	Questionnaire measure of loneliness and neuroticism	Belief unrelated to reported loneliness; commitment was associated with reduced loneliness; correlations of religious measures with neuroticism were generally negative but low
Weiss and Mendoza (1990)	132 men and 94 women members of Hare Krishna movement at 8 sites in U.S.	Degree of involvement or acculturation in Hare Krishna movement	Mental Health Inventory and Comrey Personality scales	For men, greater involvement was associated with higher psychological well-being scores (similar but weaker pattern for women); no other mental health effects, except that more involved members appeared to be more compulsive
Ferraro and Albrecht-Jensen (1991)	2939 adults in U.S. national survey	Self-reported religious practice, conservatism, closeness to God, and belief in life after death	Self-reported health status	Religious practice was positively correlated with health status, religious conservatism was negatively correlated; closeness to God and belief in afterlife not related to health
2. Using appropriate social behavior as the criterion of mental health				
Hartshore and May (1928)	Children in U.S.	Religious training, belief, and participation	Moral behavior	No relationship
Middleton and Fay (1941)	83 delinquent and 102 nondelinquent girls	Attitide toward Sunday service and Bible readings	Absence of delinquent record	Delinquent girls were more favorable toward both Sunday service and Bible reading

Bonger (1943)	Holland, 1910–1915, 1919	Denominational affiliation	Absence of criminal conviction	Nonreligious and Jews underrepresented among criminals; Protestants and Catholics overrepresented
von Hentig (1948)	Criminals and noncriminals in Pennsylvania	Religious affiliation	Absence of criminal sentence	Religious affiliation was positively correlated with being a criminal
Kinsey, Pomeroy, and Martin (1948)	Survey of U.S. male adults	Devoutness (religious activity)	Masturbation, premarital intercourse, marital intercourse, and homosexuality	More devout report less masturbation, premarital intercourse, marital intercourse, and homosexuality
Landis and Landis (1953)	409 U.S. couples	Frequency of church attendance	Self-report of marital happiness	Regular church attenders more frequently reported "very happy" marriages
Strunk (1959)	60 preministerial and 50 business students	Preministerial student	Nonagressive social behavior measured by Bell Adjustment inventory	Preministerial students were more aggressive ($p < .01$)
Middleton and Putney (1962)	U.S. adults	Religious belief	Absence of antisocial behavior	No relationship
Scholl and Beker (1964)	52 delinquent and 28 nondelinquent boys (Protestant)	Religious belief and attitudes	Absence of delinquent record	No clear relationship for either belief or attitudes
Masters and Johnson (1970)	Sex therapy patients	Religious background	Absence of sexual dysfunction	Strict religious unbringing was associated with dysfunction
Kantner and Zelnik (1972)	4240 unmarried women, 15–19 years old	Frequency of church attendance	Self-report of premarital intercourse	Frequent attenders less likely to report having premarital intercourse than nonattenders

Table 8.1 Summary of research examining the relationship between mental health and amount of religious involvement (*Continued*)

Authors	Sample population	Measure of religion	Measure of mental health	Findings
Goldsen et al. (1960)	1600 (approx.) undergraduates at Cornell University	Religiousness scale, measuring belief in God and importance of religion	Self-report of frequency of drinking, cutting classes, and premarital sex	Respondents who were more religious reported less drinking, less cutting of classes, and less acceptance of premarital sex
Gorsuch and Butler (1976)	Review of results of over 15 studies	Various—including church membership and participation, religious upbringing, and self-reported meaningfulness of religion	Illicit drug use	Religion, however defined, was associated with lower probability of illicit drug use
Hadaway, Elifson, and Peterson (1984)	600 white adolescents in Atlanta, Georgia	Self-reported church attendance, importance of religion, and orthodoxy	Self-reported use of alchohol, marijuana, and other illicit drugs	All religious measures were associated with less use of alcohol, marijuana, and other illict drugs ($ps < .01$)
Hoge and de Zulueta (1985)	1729 adults in U.S. national survey	Orthodoxy scale; perception of self as religious	Self-report of honesty on taxes, etc.; alcohol drinking	Weak positive correlations ($rs = .08$ to .24), except no relation to alcohol drinking among Catholics
Woodroof (1985)	447 freshmen at colleges affiliated with the churches of Christ	Frequency of church attendance	Self-reported status as a sexual virgin	Church attendance was positively associated with being a virgin ($p < .0001$)
Dudley, Mutch, and Cruise (1987)	801 Seventh-Day Adventist youth from 71 churches in North America	Frequency of family worship, church attendance, and personal devotions	Self-reported frequency of use of alcohol and tobacco	Religion measures were positively related to less frequent use of alcohol and tobacco

Perkins (1987)	860 undergraduates at liberal arts college in upstate New York	Questionnaire measure of strength of religious commitment	Self-reported alcohol consumption and frequency of intoxication	Strength of religious commitment was negatively associated with reports of frequent consumption (especially among Protestants) and reports of intoxication ($ps < .05$)
Jensen, Newell, and Holman (1990)	423 single undergraduates (191 men, 232 women) in Midwest	Frequency of church attendance	Self-reported frequency of sexual intercourse	No reliable relationship; very frequent attenders and nonattenders scored low, but only if they disapproved of sexual permissiveness
Welch, Tittle, and Petee (1991)	2487 Catholic parishioners in U.S.	Self-reported freuqency of private, family-centered religious activity	Self-report of unwillingness to cheat on taxes, to drink excessively, etc.	Very low but statistically significant ($p <$ .05) positive correlation
Beck, Cole, and Hammond (1991)	888 male and 1031 female "teen virgins" in U.S.	Frequency of church attendance	Self-report of not having engaged in premarital intercourse when interviewed 4 years later	Church attendance was positively correlated with remaining a virgin ($p <$ .01)
3. Using freedom from worry and guilt as the criterion of mental health				
Funk (1956)	255 college students	Orthodoxy of belief	Taylor Manifest Anxiety scale	No significant relationship
O'Reilly (1957)	Noninstitutionalized Catholic elderly (108 males, 102 females)	Religious activity	Self-report of happiness	Religious activity was positively related to reported happiness
Rokeach (1960)	College students	Believers versus nonbelievers	Self-report of tension, fitful sleep, and anxiety	Believers complained of more tension, fitful sleep, and anxiety ($p < .01$)
Argyle and Delin (1965)	700 British children	Church attendance	Self-report of guilt feelings	Church attendance positively correlated with guilt for Protestant females ($r = .30$, $p < .01$), but not for males

Table 8.1 Summary of research examining the relationship between mental health and amount of religious involvement (*Continued*)

Authors	Sample population	Measure of religion	Measure of mental health	Findings
Peterson (1964)	420 married people	Religious affiliation	Sex guilt	Sex guilt highest among members of conservative denominations, lowest among those with no religious affiliation
Moberg (1965)	Institutionalized elderly	Religious activities	Assessment of personal adjustment	Involvement in religious activities positively correlated with personal adjustment
Moberg and Taves (1965)	1340 men and women over 60 years old (Minnesota)	Church membership and involvement	Self-report of happiness enjoyment, and satisfaction	Among those not fully employed, church leaders and members reported more happiness, enjoyment, and satisfaction. Among those fully employed, there were no differences
Spellman, Baskett, and Byrne (1971)	60 citizens of a small farming community in Texas	Three categories: nonreligious; regular church attenders; those experiencing a sudden conversion	Taylor Manifest Anxiety scale	Sudden converts had higher anxiety scores than nonreligious ($p < .05$); regular attenders and nonreligious did not differ reliably
Hoelter and Epley (1979)	375 undergraduates at a midwestern university	Frequency of church attendance, self-perceived religiosity, orthodoxy	8 multidimensional fear of death subscales	All religion measures correlated negatively with fear of death as unknown; self-perceived religiosity and orthodoxy correlated positively with fear of death due to consequences for others and fear due to self-destruction
Peterson and Roy (1985)	318 citizens of Memphis, Tennessee, in telephone interview	Frequency of church attendance; self-reported importance of religion	Self-reports of worry, discouragement, and unfair treatment	Frequency of church attendance was negatively correlated with reported unfair treatment; otherwise, no reliable relationship

4. Using personal competence and control as the criterion of mental health

Symington (1935)	300 adults	Conservative versus liberal denominational affiliation	Independence of group pressure	Conservatively religious were more dependent on group opinion
Prothro and Jensen (1950)	Adults in southern U.S.	Religious value score on Allport, Vernon, and Lindzey scale	Self-reliance	Importance of religion was negatively correlated with self-reliance among Protestants
Dreger (1952)	30 most conservative and 30 most liberal from 490 California church members	Degree of religious conservatism	Independence, measured by projective techniques	Conservatively religious were more dependent ($p < .02$)
Lasagna et al. (1954)	27 hospital patients	Church attendance	Response to placebo for pain relief	Church attendance correlated positively with responsiveness to a placebo ($p < .01$)
Clark (1955)	Scholars and scientists in U.S.	Religious affiliation and belief	Appearance in "Who's Who"	Both religious affiliation and belief were negatively correlated with appearance in "Who's Who"
Ranck (1961)	800 male Protestant theological students	Conservative versus liberal religious attitude and belief	Independence and assertiveness	Conservatively religious were both more dependent and more submissive
Stark (1963)	2601 U.S. graduate students	Religious involvement	Self-report of valuing self-expression	Religious involvement was negatively related to valuing self-expression
Dunn (1965)	Religious professionals (Catholic)	Comparison with population norms	Personality assessment, typically using MMPI	Religious professionals were more perfectionistic, insecure, withdrawn, and socially inept
Shrauger and Silverman (1971)	465 college students	Frequency of church attendance	Rotter's Locus of Control scale	Among females, more frequent attenders had more internal sense of control ($p < .001$); no relationship for males

Table 8.1 Summary of research examining the relationship between mental health and amount of religious involvement (*Continued*)

Authors	Sample population	Measure of religion	Measure of mental health	Findings
Hood (1974)	82 undergraduates	Index of intense religious experience	Barron's Ego-Strength scale	Those reporting intense religious experience scored lower on ego-strength, but not significantly so when religious items on the Ego-Strength Scale were removed
Graff and Ladd (1971)	152 male college students	Religious involvement	Self-report of independence and self-acceptance	More religiously involved were more dependent, less inner-directed, and less self-accepting
Pargament, Steele, and Tyler (1978)	133 U.S. adults (Protestant, Catholic, and Jewish)	Frequency of attendance at religious services	Levinson's Control scales: a personal efficacy scale	More frequent attenders had less sense of personal control and chance control, more sense of God's control, and less sense of personal efficacy
Hadaway (1978)	2164 adults in U.S. national survey	Frequency of church attendance; self-reported "religious mindedness"	Self-report of degree of control one has in one's life	Both religious measures had very low but significant positive correlations with reported control (rs = .08 and .07, $ps <$ .001)
Kaiser (1991)	121 college students	Self-reported interest in religion and participation in religious activities	Self-directing, deferring, and collaborative problem solving	Religious interest and participation were negatively correlated with a self-directing problem-sovling style and positively correlated with a deferring and a collaborative problem-solving style ($p <$ .001)
5. Using self-acceptance or self-actualization as the criterion of mental health				
Dreger (1952)	30 most conservative and 30 most liberal from 490 California church members	Degree of religious conservatism	Absence of ego defensiveness as measured by a projective test	Conservatively religious were found to be more defensive (t = 2.45, $p <$.02)

Table 8.1 Summary of research examining the relationship between mental health and amount of religious involvement (*Continued*)

Authors	Sample population	Measure of religion	Measure of mental health	Findings
Mayo, Puryear, and Richek (1969)	166 college students (67 males, 99 females)	Self-report as religious	Ego strength as measured by the MMPI	For females, being religious was associated with less ego-strength ($p <$ .01); no reliable difference for males
Graff and Ladd (1971)	152 male college students	Religious commitment scale measuring belief, practice, experience, and knowledge	Self-actualization as measured by Shostrom's Personal Orientation Inventory	Religious commitment was negatively correlated with self-actualization; more religious were less self-accepting and spontaneous, more dependent
Lindskoog and Kirk (1975)	45 Protestant seminary students	Church activity, intensity of belief, presence of mystical experience	High, moderate, and low self-actualization as measured by Shostrom's Personal Orientation Inventory	No relationship between any of the measures of religious involvement and self-actualization
Pargament, Steele, and Tyler (1978)	133 U.S. adults (Protestant, Catholic, and Jewish)	Frequency of attendance at religious services	Absence of self-criticism as measured by self-criticism scale	More frequent attenders were more self-critical than less frequent attenders
Hjelle (1975)	63 male freshman at Catholic college in Rochester, New York	Frequency of participation in church activities	Self-actualization as measured by Shostrom's Personal Orientation Inventory	Frequency of participation was negatively correlated with self-actualization
Smith, Weigert, and Thomas (1979)	Middle-class Catholic high school students in 6 cities representing 5 cultures	Self-reported religious belief, practice, and experience	Semantic differential measure of self-esteem	Religion, especially religious practice, was significantly positively correlated with self-esteem in 3 of 5 cultures (i.e., in U.S., Spain, and Germany but not in Puerto Rico or the Yucatan)
Ventis, Batson, and Burke (1982)	16 male and 18 female undergraduates	Self-report of interest in religion	Self-actualization as measured by Shostrom's Personal Orientation Inventory	Interest in religion was negatively correlated with self-actualization for males; no clear relationship for females

Bahr and Martin (1983)	1673 "Middletown" (Muncie, Indiana) high school students	Frequency of church attendance; self-rated evangelicalism	Rosenberg Self-Esteem scale	No reliable relationship
6. Using personality unification and organization as the criterion of mental health				
Carr and Hauser (1976)	219 adults in small industrial town in midwestern U.S.	Self-report of religious activity	Sense of personal integration expressed in absence of alienation from others	No relationship
7. Using open-mindedness and flexibility as the criterion of mental health				
Ranck (1955)	800 male Protestant theological students	Intensity of conservative religious attitudes and belief	Absence of authoritarianism	Conservative religious attitudes and belief were positively correlated with authoritarianism ($r = .53, p < .01$)
Appleby (1957)	42 male Jewish college students	Frequency of religious activity	Absence of rigidity	Those reporting either high or no religious participation were more rigid than those reporting moderate amount of participation
Gregory (1957)	596 students and members of church and civic groups	Religious orthodoxy	Absence of authoritarianism as measured by the F-scale	Orthodoxy positively correlated ($r = .53$, $p < .001$) with authoritarianism
Spilka (1958)	U.S. adults	Religious orthodoxy	Absence of rigidity	Orthodoxy was positively correlated with rigidity
Brown (1962)	203 Australian university students	Intensity of religious belief	Absence of authoritarianism as measured by the F-scale	Stronger religious belief was positively correlated with authoritarianism ($r = .41$, $p < .001$)
Photiadis and Johnson (1963)	300 U.S. adults	Religious orthodoxy	Absence of authoritarianism as measured by the F-scale	Orthodoxy was positively correlated with authoritarianism ($p < .01$)

Table 8.1 Summary of research examining the relationship between mental health and amount of religious involvement (*Continued*)

Authors	Sample population	Measure of religion	Measure of mental health	Findings
Stark (1963)	2609 U.S. graduate students	Religous involvement	Self-identification as intellectual; positive attitude toward open-minded scholarship	Religious involvement was negatively related to both intellectual identity and positive attitude toward open-minded scholarship
Feather (1964)	165 male Australian college students	Attitude toward religion (pro versus anti)	Accurately judging the falseness of invalid proreligious syllogisms	Religious students made more proreligious errors; nonreligious students did not make more antireligious errors
Stark (1971)	Survey of 1976 U.S. adults	Church attendance	Absence of authoritarianism as measured by the F-scale	No relationship, although author's mode of organizing data may have restricted variance on orthodoxy
Johnson and Tamney (1984)	284 residents of "Middletown" (Muncie, Indiana)	Endorsing a "Christian Right" orientation defined by seeing U.S. as God's instrument and supporting school prayer	Cultural ethnocentrism and authoritarianism questionnaire items	Christian Right orientation was positively correlated with ethnocentrism ($r = .23$) and authoritarianism ($r = .49$), $ps < .01$
Black (1985)	780 Protestant church members in Australia	Questionnaire measure of theological conservatism, frequency of church attendance and church involvement	Questionnaire measures of authoritarianism and dogmatism	Theological conservatism was positively correlated with authoritarianism ($r = .41$); no clear relation to attendance or involvement
Lupfer, Hopkinson, and Kelley (1988)	165 undergraduate volunteers from psychology classes	Fullerton and Hunsberger's Christian Orthodoxy scale	Authoritarianism measured by the Balanced F-scale	Orthodoxy was positively correlated with authoritarianism ($r = .41, p < .001$)
Eisinga, Felling, and Peters (1990)	1190 adults from national survey in The Netherlands	Christian Belief scale	Authoritarianism measured by the F-scale	Strength of Christian belief was positively correlated with authoritarianism ($r = .35$, $p < .001$)

Table 8.2 Line score on research examining the relationship between mental health and amount of religious involvement

	Relationship with amount of religious involvement			
Conception of mental health	Positive	None	Negative	Total
Absence of illness	17	12	4	33
Appropriate social behavior	12	4	5	21
Freedom from worry and guilt	4	3	5	12
Personal competence and control	2	2	11	15
Self-acceptance, self-actualization	2	6	11	19
Unification and organization	0	1	0	1
Open-mindedness and flexibility	0	3	11	14
Total	37	31	47	115

gests a qualified negative relationship with another conception, freedom from worry and guilt. Only among the elderly do the more religious report less worry; among other age groups (ranging from children to young adults), they tend, if anything, to report more.

For one of the remaining conceptions, personality unification and organization, there is no clear relationship, perhaps because virtually no relevant data exist. For the other two, absence of symptoms of mental illness and appropriate social behavior, there are qualified positive relationships. Among clergy (and seminarians) the relationship between religious involvement and absence of symptoms appears to be negative; among nonclergy it seems, if anything, positive. Among nonclergy, seventeen findings were of a positive relationship; twelve were of no clear relationship; and only two were of a negative relationship. For appropriate social behavior, there is a consistent, if weak, positive relationship between religious involvement and both reduced premarital sex and reduced use of tobacco, alcohol, and illicit drugs among adolescents. For other social behaviors and other age groups, the relationship is not clear. It tends to be positive when the measure of appropriate social behavior is based on self-report of a behavior one's religious institution proscribes (condemns) more clearly than does the culture at large; otherwise, there tends to be no clear relationship.

Using the Seven Conceptions to Account for the Differences among the Empirical Experts

The more complex array of findings suggests an explanation for the apparently contradictory conclusions drawn by Becker, Dittes, and Sanua concerning the relationship between religion and mental health. It suggests that we may be confronted with a situation like the one described in the parable of the blind men and the elephant. Although our experts contradict one another, each may be telling the truth. Directed by different conceptions of

mental health, each may, like the blind men, have grabbed hold of a different part of the available evidence.

Looking back at the research reviews presented by Becker, Dittes, and Sanua, we believe that this is, in fact, what happened. Becker focused on the Midtown Manhattan Study (Srole, Langer, Michael, Opler, & Rennie, 1962), a classic study of mental health in New York City that used absence of symptoms of mental illness as the criterion of mental health. Becker's conclusion that "the absence of mental illness and neurotic symptoms does have certain favorable correlations with religious identity and activity" was based primarily on the results of this study. As Tables 8.1 and 8.2 suggest, for this and other studies focusing on absence of illness, the relationship between mental health and religious involvement tends to be positive.

Becker's qualification of his general conclusion is also instructive. When he notes that "the attempt to find any detailed points of relationship between positive psychological traits and religion has produced very few clues," he is referring to research that employed four other conceptions of mental health. The positive psychological traits to which Becker alludes are freedom from worry and guilt, personal competence and control, self-acceptance or self-actualization, and open-mindedness and flexibility. For each of these conceptions we found that the relationship with religious involvement tends to be negative; the only exception is that among the elderly the more religious report less worry and guilt.

Dittes (1969) focused his analysis of the relationship between amount of religious involvement and mental health on three conceptions of mental health: personal competence and control, self-acceptance or self-actualization, and open-mindedness and flexibility. Given this focus, his conclusion that religious involvement is associated with mental sickness rather than with mental health seems quite correct. Summing across these three conceptions, the line score in Table 8.2 reveals thirty-three findings of a negative relationship, eleven of no relationship, and only four of a positive relationship.

Sanua's (1969) equivocal conclusion "that a substantial number of additional empirical findings would be necessary before any valid conclusions could be drawn" was based on a review that ranged across six of our seven conceptions of mental health; only unification and organization was omitted. Within this broad scope, Sanua focused on four conceptions: absence of illness, freedom from worry and guilt, self-acceptance or self-actualization, and open-mindedness and flexibility. Given this focus, his refusal to draw any conclusion seems entirely justified; our line score suggests a positive relationship for one of these conceptions (absence of illness), a negative relationship for two (self-acceptance or self-actualization and open-mindedness and flexibility), and no clear relationship for one (freedom from worry and guilt—when one includes studies of the elderly, as Sanua did).

In sum, our strategy of identifying different conceptions of mental health and then classifying the research on the relationship between mental health

and amount of religious involvement by conception seems to have paid off. It has enabled us to make sense of the apparently contradictory conclusions of Becker, Dittes, and Sanua; each drew the right conclusion given that part of the empirical evidence on which each laid his hands.

In addition to allowing us to sort out this apparent confusion, our more comprehensive review has provided a basis for a broader, more differentiated set of conclusions. Except among clergy, religious involvement is positively correlated with absence of mental illness. But it is negatively correlated with personal competence and control, self-actualization, open-mindedness and flexibility, and freedom from worry and guilt (except among the elderly). The relationship to appropriate social behavior is mixed. Among adolescents, there is consistent evidence of a positive correlation with reduced premarital sex and reduced use of tobacco, alcohol, and illicit drugs, especially on self-report measures. For other age groups, other social behaviors, and other modes of measurement, however, the relationship is not clear. (We will present additional research on two other important social behaviors in Chapters 9 and 10—discrimination against minorities and helping people in need.) There is, as yet, no clear evidence of a relationship between amount of religious involvement and personality unification and organization.

Overall, this pattern of results may seem to contradict the views of Carl Jung, Gordon Allport, and Allen Bergin, who have suggested that religion is an important if not essential contributor to mental health. Indeed, when taken as a whole, the evidence may appear to support the suggestion of Freud and Ellis that religion is itself a form of mental illness. The evidence indicates that amount of religious involvement is associated with an array of deficiencies in personality development (Conceptions 4, 5, and 7). And even the positive associations with absence of symptoms of mental illness (Conception 1) and appropriate social behavior (Conception 2) can be viewed as support for Freud's view. If religion is itself a form of pathology—an illusion designed to keep our libidinal impulses in check—then it could, as Freud suggested, render the need for other pathological symptoms superfluous while at the same time increasing conformity to society's demands for appropriate social behavior.

EMPIRICAL EVIDENCE OF A RELATIONSHIP BETWEEN MENTAL HEALTH AND DIFFERENT DIMENSIONS OF INDIVIDUAL RELIGION

The appearance of support for the view that religion is a form of mental illness may, however, be misleading. Even though we have introduced considerable differentiation into the relationship between religion and mental health by distinguishing among seven different conceptions of mental health, we may not have introduced enough. In addition to recognizing different ways of being healthy, we may also need to take account of different ways of being religious.

In Chapter 6 we proposed a three-dimensional analysis of different ways of being religious—as an extrinsic means to some other end, as an intrinsic end in itself, and as a quest. A little reflection suggests that we probably need to take account of these different dimensions in our assessment of the religion–mental health relationship; each dimension may have its own unique pattern of relationships with the various conceptions of mental health.

Expected Relationships to Mental Health for the Three Dimensions of Individual Religion

The extrinsic, means dimension. Following Allport, we viewed the extrinsic, means dimension as reflecting the extent to which the believer uses religion for self-serving ends; "the extrinsic type turns to God, but without turning away from self" (Allport & Ross, 1967, p. 434). Allport originally labeled this orientation to religion "immature," and noted that

> It serves either a wish-fulfilling or soporific function for the self-centered interests. . . . It does not entail self-objectification, but remains unreflective, failing to provide a context of meaning in which the individual can locate himself, and with perspective judge the quality of his conduct. Finally, the immature sentiment is not really unifying in its effect upon the personality. . . . Even when fanatic in intensity, it is but partially integrative. (1950, p. 54)

Such an approach to religion should have a negative influence on virtually all of our conceptions of mental health. Although it might not increase symptoms of mental illness, the self-centeredness and lack of perspective should lead to less appropriate social behavior, at least in situations where there is no fear of punishment or censure. The knowledge that there is a certain hypocrisy in one's beliefs should not provide freedom from worry and guilt. The lack of a "context of meaning in which the individual can locate himself" should discourage both personal competence and self-acceptance. Because this dimension is "not really unifying" and "but partially integrative," it should produce less unity and organization. And because it is characterized by a closed-minded attention to one's own point of view, it should discourage open-mindedness and flexibility. In sum, although it might not lead to increased symptoms of illness, there is no basis for expecting the extrinsic, means dimension to be associated with increased mental health, regardless of how mental health is conceived.

The intrinsic, end dimension. Allport was convinced that intrinsic religion, in which religious beliefs provide the master motive in life and suffuse it with meaning and direction, was a powerful contributor to mental health. As a result, he would almost certainly have expected the intrinsic, end dimension to relate positively to all seven conceptions of mental health. But we would not. The understanding of this dimension that we developed in Chapter 6 differed from Allport's, and so do our expectations for its contribution to mental health. We suggested that the intrinsic, end dimension, at least as

measured by Allport's Intrinsic scale and related instruments, includes many of the characteristics of Erik Hoffer's fanatical, rigid, true believer. And if this is true, then we would not expect the relationship between this dimension and the various conceptions of mental health to be uniformly positive.

To be explicit, we would expect positive relationships with four conceptions of mental health. (1) The more devout, intrinsic believer's conformity to the moral prescriptions of orthodox religion should produce an increase in appropriate social behavior, at least behavior defined as appropriate by the religious tradition. (2) The believer's faith that he or she has answers to life's existential questions should increase freedom from worry and guilt. (3) The believer's conviction that not only is he or she on God's side but also that God is on his or her side should increase the sense of personal competence and control. (4) And finally, a devout, intrinsic belief should provide personality unification and organization; the true believer knows who he or she is and what is important.

In addition to these four positive relationships, we would expect this dimension to relate negatively to one conception of mental health, open-mindedness and flexibility. As we suggested in Chapter 6, to the degree that the intrinsic believer is convinced that he or she already knows the truth about life, there is no need to be open to new ideas and other points of view. On the contrary, as discussed in Chapter 7, the intrinsic believer should actively resist these potential threats to the source of his or her comfort and direction.

Finally, we are unable to make clear predictions for the relationship of the intrinsic, end dimension to two conceptions of mental health: absence of illness and self-acceptance or self-actualization. Although, as Freud suggested, devout belief might render personal neurosis unnecessary, it is itself interpreted as a form of mental illness not only by Freud but also by many other psychopathologists (e.g., Erich Fromm, 1950; Albert Ellis, 1980). This interpretation is also reflected in diagnostic instruments like the Minnesota Multiphasic Personality Inventory (MMPI), which include items that ask about religious belief, prayer, and experiences of the presence of God, and treat affirmative answers as evidence of psychopathology.

Turning to self-acceptance or self-actualization, intrinsic belief might increase self-acceptance if the believer focuses on his or her acceptance by God. But it might also reduce self-acceptance if the believer focuses on the equally orthodox doctrines of original sin and total depravity. Moreover, the intrinsic believer's devout allegiance to orthodox religion would not seem to encourage the free self-expression that characterizes Maslow's self-actualized individual. It might lead to a *belief* that one is self-actualized, that one has discovered and is living out one's true nature, but not to genuine self-actualization.

The quest dimension. In Chapter 6 we introduced a third dimension because we felt that Allport's intrinsic dimension omitted three important aspects of his earlier concept of mature religion: complexity, skepticism of

traditional orthodox religious answers, and a sense of incompleteness and tentativenss. Each of these aspects was built into the scale we designed to measure the quest dimension.

For three conceptions of mental health, we would expect a relationship to the quest dimension that is just the opposite of the relationship to the intrinsic, end dimension. Whereas the certainty and direction provided by devout, intrinsic belief may be expected to lead to more freedom from worry and guilt and more unification and organization, the skepticism and tentativeness of the quest dimension should produce less of these two characteristics. At the same time, whereas the intrinsic, end dimension may be associated with less open-mindedness and flexibility, the quest dimension should be associated with more.

For two other conceptions we would also expect differences between the relationship to the end and quest dimensions, although not clear opposites. Whereas we expect the intrinsic, end dimension to relate positively to appropriate social behavior, there seems to be no basis for predicting either a positive or negative relationship between the quest dimension and this conception. And whereas we cannot make a clear prediction for the relationship of the end dimension to self-acceptance or self-actualization, we would expect the quest dimension to relate positively to this conception of mental health.

Concerning the remaining two conceptions, we would predict the same relationship for the end and quest dimensions. As noted above, the intrinsic, end dimension should relate positively to personal competence and control because the devout believer is confident that God is on his or her side. The quest dimension should also relate positively to personal competence and control, but for a very different reason. This dimension should reflect a self-directedness and reliance on one's own ability to think through complex, ultimate questions. Finally, as was true for the end dimension, we have no clear expectation concerning the relationship of the quest dimension to the absence of illness.

Obviously, our expectations for the way the means, end, and quest dimensions relate to different conceptions of mental health are complex. To help you keep these expectations in mind as we proceed to check them against the available empirical evidence, we have summarized them in Table 8.3. Where we expect a positive relationship between a religious dimension and a conception of mental health, a plus sign (+) is entered in the table; where we expect a negative relationship, a minus sign (−); and where we have not been able to predict a clear relationship, a question mark (?). Look over the entries in Table 8.3 to be sure that the predicted patterns make sense to you. Then we can move on to see how well these predictions stand up against the available empirical evidence.

The Empirical Evidence

When in 1982 Batson and Ventis reviewed the available evidence on the relationship of the three religious dimensions to the seven conceptions of

Table 8.3 Summary of expected relationships between the seven conceptions of mental health and the three dimensions of individual religion

	Dimension of individual religion		
Conception of mental health	Extrinsic, means	Intrinsic, end	Quest
Absence of illness	?	?	?
Appropriate social behavior	−	+	?
Freedom from worry and guilt	−	+	−
Personal competence and control	−	+	+
Self-acceptance, self-actualization	−	?	+
Unification and organization	−	+	−
Open-mindedness and flexibility	−	−	+

mental health, they were able to report 36 findings from fifteen different studies. We have uncovered some research that Batson and Ventis (1982) missed, and we have added relevant studies done since; during the past decade, there have been many. Now, instead of 36 findings from fifteen different studies, we are able to report 197 findings from sixty-one different studies.

To organize this huge mass of evidence, we have constructed a separate summary table for each of the three dimensions, as well as a line score table that presents side-by-side the pattern of findings for each dimension. (Once again, the uneven quality of research methods makes formal meta-analysis inappropriate.) Table 8.4 summarizes eighty findings from forty-five different studies of the relationship between the extrinsic, means dimension and one or more of the seven conceptions of mental health; Table 8.5 summarizes ninety-three findings from forty-six different studies of the intrinsic, end dimension; and Table 8.6 summarizes twenty-four findings from fifteen different studies of the quest dimension. Note that many of the studies appear in more than one of these tables.

Table 8.7 presents the line score for all 197 findings. As in Table 8.3, a plus sign in Table 8.7 denotes a positive relationship between a given religious dimension and conception of mental health, a minus sign denotes a negative relationship, and a question mark no clear relationship.

How do the expectations summarized in Table 8.3 fare when compared with the available evidence? The easiest way to answer this question is to check the expected patterns for each dimension presented in Table 8.3 with the line score for that dimension presented in Table 8.7. When we make this comparison, we find that our expectations were generally supported, with a few exceptions.

The extrinsic, means dimension. Following Allport, we had expected the extrinsic, means dimension to be negatively related to all but the first conception of mental health. Results of the research summarized in the line score in Table 8.7 are generally consistent with this expectation. Of the eighty relevant findings, forty-eight indicate a negative relationship between

Table 8.4 Summary of research examining the relationship between mental health and the extrinsic, means dimension

Authors	Sample	Measure of mental health	Findings
1. Using absence of illness as the criterion of mental health			
Lovekin and Malony (1977)	51 persons attending Life in the Spirit seminars (encouraging glossolalia)	Depression as measured by the Multiple Affect Adjective Checklist	No reliable relationship
Watson, Hood, and Morris (1984, Study 1)	85 introductory psychology students	Narcissism as measured by the Narcissistic Personality Inventory	No reliable relationship
Bergin, Masters, and Richards (1987)	32 former Mormon missionaries	Neurosis as measured by Irrational Beliefs Inventory; Beck Depression Inventory	Extrinsic religious orientation not reliably related to either measure
Levick and Delaney (1987)	193 introductory psychology students (63 men, 130 women)	Beck Depression Inventory	Extrinsic religious orientation positively correlated with Beck Depression Inventory ($r = .25, p < .01$)
Watson, Hood, Morris, and Hall (1987)	145 introductory psychology students (64 men, 81 women)	Exploitative narcissism as measured by the Narcissistic Personality Inventory and the Narcissistic Personality Disorder scale	Extrinsic religious orientation had low positive correlations with exploitative narcissism as measured by the NPI ($r = .14$, *ns*) and by the NPDS ($r = .28, p < .01$)
Watson, Hood, Foster, and Morris (1988)	198 undergraduates at a state university; 116 Pentecostal college students	Exploitative narcissism as measured by the Narcissistic Personality Inventory; two depression scales	Extrinsic religious orientation had low positive correlations with exploitative narcissism ($r = .28, p < .001$) and both depression scales (*rs* = .17 and .16, *ps* < .01)
Watson, Morris, and Hood (1988b)	Two studies: Samples were 125 and 211 undergraduates	Neurosis as meausred by Irrational Beliefs Inventory and Neuroticism scale	Extrinsic religious orientation had low but significant positive correlation with irrational beliefs ($r = .15$); no relationship with Neuroticism Scale

Watson, Morris, and Hood (1989b)	Summarizes results from 8 samples, ranging in size from 116 to 212, totalling 1397 undergraduates	Depression as measured by Costello and Comrey Depression scale	Extrinsic religious orientation had low positive correlations with depression (rs = .13 to .28, $ps < .05$ in 4 of 8 samples); across all samples, $r = .18$
Watson, Morris, and Hood (1989c)	286 undergraduates in psychology classes (110 men, 176 women)	Exploitative narcissism as measured by the Narcissistic Personality Inventory	Extrinsic religious orientation was positively correlated with exploitative narcissim (r = .29, $p < .001$)
Park, Cohen, and Herb (1990)	Two studies: 83 undergraduates each	Beck Depression Inventory (BDI)	In Study 1, extrinsic religious orientation was positively correlated with BDI scores among Catholics (r = .26) but negatively correlated among Protestants (r = −.43); in Study 2, no reliable relationship among either Catholics or Protestants
Pargament et al. (1990)	586 members from 10 midwestern churches	Self-reported general health; perception of having handled negative life event well	Extrinsic religious orientation had low positive correlation with perception (r = .15); no relation to general health
Genia and Shaw (1991)	309 adults or college students attending Protestant, Catholic, or Jewish services in Washington, D.C.	Beck Depression Inventory	Extrinsic religious orientation was positively correlated with scores on the Beck Depression Inventory (r = .24, $p < .001$)
2. Using appropriate social behavior as the criterion of mental health			
Rice (1971)	151 male members of religious groups (Massachusetts)	Questionnaire measure of social adjustment	Extrinsic religious orientation was negatively correlated with measure of social adjustment
Kahoe (1974)	518 freshmen at conservative college in the Midwest	Responsiblity scale from the California Psychological Inventory	Extrinsic religious orientation was negatively correlated with Responsibility scale (r = −.40)

Table 8.4 Summary of research examining the relationship between mental health and the extrinsic, means dimension (*Continued*)

Authors	Sample	Measure of mental health	Findings
Paloutzian, Jackson, and Crandall (1978)	Two samples: 84 introductory psychology students; 177 adults	Crandall's Social Interest scale	Extrinsic religious orientation was negatively correlated with social interest among adults ($r = -.22$, $p < .01$); no reliable relationship among students
Bergin, Masters, and Richards (1987)	78 BYU juniors and seniors	California Personality Inventory Sociability, Social Presence, Responsibility, Socialization, and Good Impression scales	Extrinsic religious orientation was negatively correlated with each of these scales ($rs = -.21$ to $-.26$, $ps < .05$, for all but Socialization, for which $r = -.08$, *ns*)
Also see Chapters 9 and 10 for summary of research on the relationship between extrinsic religion and prejudice and helping			
3. Using freedom from worry and guilt as the criterion of mental health			
Magni (1971)	53 student nurses in Uppsala, Sweden	Attitudes toward death, fear of death, and death anxiety	Extrinsic religious orientation was positively correlated with unfavorable attitudes toward death, fear of death, and death anxiety
Kahoe and Dunn (1975)	70 U.S. adults attending church in a Kentucky town	Absence of fear of death	Extrinsic religious orientation was nonsignificantly positively correlated with fear of death
Minton and Spilka (1976)	67 religiously active people (aged 17 to 83)	Questionnaire measures of positive and negative pespectives on death	Extrinsic religious orientation was negatively correlated with positive view of death and positively correlated with negative view of death (most $rs = .30$ or higher)
Spilka et al. (1977)	167 religiously involved individuals	Questionnaire measures of positive and negative perspectives on death	Extrinsic religious orientation was positively correlated with negative view of death ($p < .01$) and not reliably related to a positive view
Bolt (1977)	62 undergraduate psychology students at Calvin College	Templer's Death Anxiety scale	Extrinsic religious orientation was positively correlated with death anxiety ($r = .29$, $p < .05$)

Lovekin and Malony (1977)	51 persons attending Life in the Spirit seminars (encouraging glossolalia)	Questionnaire measures of state and trait anxiety and of guilt	Extrinsic religious orientation was not reliably related to state anxiety or guilt, but was positively correlated with trait anxiety (r = .38, $p < .01$)
Patrick (1979)	35 Buddhist, 40 Baptist, and 16 Congregationalist worshipers on Christmas Day in Honolulu	Splika's Death Perspectives scales; Templer's Fear of Death scale	Extrinsic religious orientation had a low, nonsignificant positive correlation with positive death outlook for each group, a significant positive correlation with negative death outlook and fear of death for Baptists and Congregationalists (all $rs > .30$, $ps < .05$) but not for Buddhists
Batson (1980)	80 undergraduates interested in religion	Perception of own religion as freeing self from existential concerns	No reliable relationship
Baker and Gorsuch (1982)	52 campers in religious wilderness camp	IPAT Trait Anxiety scale	Extrinsic religious orientation was positively correlated with anxiety (r = .35, $p < .01$)
Hood and Morris (1983)	Two samples: 105 undergraduates; 39 elderly	Questionnaire measures of death transcendence and death perspectives	Extrinsic religious orientation was not reliably related to use of religion for death transcendence but was positively correlated with negative perspectives on death (rs = .25 to .35, $ps < .01$)
Watson, Hood, Morris, and Hall (1985, Study 2)	194 introductory psychology students (98 men, 96 women)	McConahay and Hough Guilt scale	No reliable relationship
Schoenrade (1986)	100 introductory psychology students (50 men, 50 women)	Questionnaire measures of positive and negative perspectives on death	Extrinsic religious orientation was positively correlated with negative perspective on death (r = .31, $p < .01$), no reliable relationship with positive perspective on death
Kraft, Litwin, and Barber (1987)	107 introductory psychology students (50 men, 57 women)	Death anxiety as measured by Collett-Lester Fear of Death scale	Extrinsic religious orientation was positively correlated with death anxiety (r = .42, $p <$ .001)

Table 8.4 Summary of research examining the relationship between mental health and the extrinsic, means dimension (*Continued*)

Authors	Sample	Measure of mental health	Findings
Kojetin et al. (1987)	Three samples: 104 undergraduates; 49 Methodist seminary students; 85 United Church of Christ adults	Questionnaire measures of anxiety and of religious conflict	Extrinsic religious orientation was positively correlated with anxiety and religious conflict
Bergin, Masters, and Richards (1987)	61 BYU juniors and seniors	Taylor Manifest Anxiety scale	Extrinsic religious orientation was positively correlated with anxiety ($r = .27, p < .05$)
Levick and Delaney (1987)	193 introductory psychology students (63 men, 130 women)	Templer Death Anxiety scale	Extrinsic religious orientation had a low but significant positive correlation with death anxiety ($r = .15, p < .05$)
Springer (1987)	118 Catholic, Presbyterian, or Baptist church members in northern U.S.	Hoelter's Fear of Death scale	Extrinsic religious orientation was positively correlated with 7 of 9 fear of death dimensions (all $ps < .05$)
Watson, Morris, and Hood (1987)	162 introductory psychology students (75 men, 87 women)	McConahay and Hough Guilt scale	No reliable relationship reported
Watson, Morris, and Hood (1988a,b,c)	Six samples of undergraduates, ranging in size from 125 to 314	Questionnaire measures of social anxiety (3 studies), anxiety (5 studies), anxious overconcern (1 study)	Extrinsic religious orientation had low but significant positive correlations with anxiety in 4 of 5 studies ($rs = .17$ to $.28$); no evidence of relationship with social anxiety or anxious overconcern
4. Using personal competence and control as the criterion of mental health			
Strickland and Shaffer (1971)	104 adolescent and adult church members from a liberal and a conservative church in the Atlanta area	Internal locus of control as measured by Rotter's Locus of Control scale	Extrinsic religious orientation was negatively correlated with internal locus of control ($r = -.30$)

Rice (1971)	151 male members of religious groups (Massachusetts)	Barron's Ego-Strength scale	Extrinsic religious orientation was negatively correlated with ego-strength, but relationship disappeared when age and religious affiliation were controlled
Kahoe (1974)	518 freshman at conservative college in the Midwest	Internal locus of control as measured by Rotter's Locus of Control scale	Extrinsic religious orientation was negatively correlated with internal locus of control ($r = -.25$)
Lovekin and Malony (1977)	51 persons attending Life in the Spirit seminars (encouraging glossolalia)	Barron's Ego-Strength scale	Extrinsic religious orientation had a nonsignificant negative correlation with ego-strength ($r = -.28$)
Acklin (1984)	120 adults ranging in age from 15 to 70 (60 men, 60 women)	Barron's Ego-Strength scale and Loevinger and Wessler test of ego development	Extrinsic religious orientation was negatively correlated with ego-strength ($r = -.16$, $p < .05$) and ego development ($r = -.32$, $p < .001$)
Bergin, Masters, and Richards (1987)	33 BYU juniors and seniors	Self-control as measured by Rosenbaum's Self-Control Schedule	Extrinsic religious orientation was nonsignificantly negatively correlated with self-control ($r = -.19$)
Bergin, Masters, and Richards (1987)	78 BYU juniors and seniors	Self-Control, Achievement by Independence, and Intellectual Efficiency scales from California Psychological Inventory	Extrinsic religious orientation was nonsignificantly negatively correlated with self-control ($r = -.13$); significantly negatively correlated with achievement by independence ($r = -.23$) and intellectual efficiency ($r = -.38$)
Pargament et al. (1988)	197 Presbyterian and Lutheran church members	Self-directing, deferring, and collaborative problem solving	Partialling correlations with other styles; extrinsic religious orientation was positively correlated with deferring problem-solving style ($r = .32$); not related to other two

Table 8.4 Summary of research examining the relationship between mental health and the extrinsic, means dimension (*Continued*)

Authors	Sample	Measure of mental health	Findings
Watson, Morris, and Hood (1988b, Study 2)	125 introductory psychology students (58 men, 67 women)	Questionnaire measures of locus of control, hopelessness, general self-efficacy, and social self-efficacy	Extrinsic religious orientation had low but significant negative correlations with internal locus ($r = -.19$) and general self-efficacy ($r = -.22$); no reliable relation with hopelessness or social self-efficacy
Watson, Morris, and Hood (1988c, Study 1)	157 introductory psychology students (73 men, 84 women)	Problem-avoidance scale of the Irrational Beliefs Test	No reliable relationship
Park, Cohen, and Herb (1990, Study 2)	83 undergraduates	Mirels's Internal Locus of Control scale	Extrinsic religious orientation was negatively correlated with internal locus of control among Catholics ($r = -.37$); no reliable relationship for Protestants
5. Using self-acceptance or self-actualization as the criterion of mental health			
Ventis, Batson, and Burke (1982)	34 introductory psychology students (16 men, 18 women)	Self-actualization as measured by Shostrom's Personal Orientation Inventory	Extrinsic religious orientation was not clearly related to self-actualization
Watson, Hood, and Morris (1984)	Two studies: Samples were 85 and 317 introductory psychology students	Self-actualization as measured by Inner Support scale of Shostrom's Personal Orientation Inventory	No reliable relationship in either study
Watson, Hood, Morris, and Hall (1985)	Two studies: Samples were 227 and 194 undergraduates	Two self-esteem scales (Rosenberg; Coopersmith) and Shostrom's Self-Acceptance scale	No reliable relationships with Rosenberg Self-Esteem Scale in either study; low but significant negative correlations with Coopersmith scale in each study ($rs = -.19$ and $-.14$); low but significant negative correlation with self-acceptance in Study 1 ($r = .15$), no reliable relationship in Study 2

Bergin, Masters, and Richards (1987)	78 BYU juniors and seniors	Self-acceptance scale of the California Psychological Inventory	No reliable relationship
Watson, Morris, and Hood (1987)	162 introductory psychology students (75 men, 87 women)	Two self-esteem scales (Rosenberg; Coopersmith), two self-acceptance scales (Berger; Phillips), and self-actualization as measured by the Inner Support Scale of Shostrom's Personal Orientation Inventory	No reliable relationship with either self-esteem scale; low but significant negative correlations with both self-acceptance scales ($rs = -.23$ and $-.21$) and with inner support ($r = -.17$, all $ps < .05$)
Watson, Morris, and Hood (1989c)	286 undergraduates in psychology classes (110 men, 176 women)	Self-acceptance as measured by Inner Support scale of Shostrom's Personal Orientation Inventory	Extrinsic religious orientation had a low but significant negative correlation with inner support ($r = -.18$, $p < .01$)
6. Using personality unification and organization as the criterion of mental health			
Crandall and Rasmussen (1975)	71 students from adolescent psychology class (34 men, 37 women)	Crumbaugh and Maholick's Purpose-in-Life Test	No reliable relationship
Soderstrom and Wright (1977)	427 introductory psychology students from 6 religious and 2 state colleges in the Midwest	Crumbaugh and Maholick's Purpose-in-Life Test	No reliable relationship to Spilka et al. measure of consensual (extrinsic) religion
Paloutzian, Jackson, and Crandall (1978)	Two samples: 84 introductory psychology students; 177 adults	Crumbaugh and Maholick's Purpose-in-Life Test	No reliable relationship in either sample
7. Using open-mindedness and flexibility as the criterion of mental health			
Tisdale (1966)	292 entering college freshman	Autonomy as measured by the Edwards Personal Preference Schedule	Extrinsic religious orientation was negatively correlated with autonomy ($r = -.35$, $p < .001$)
Hoge and Carroll (1973)	515 church members from northern U.S.; 343 church members from southern U.S.	Dogmatism as measured by Trodahl and Powell's Short Dogmatism scale	Extrinsic religious orientation was positively correlated with dogmatism in both North and South ($rs = .50$ and $.66$, $ps < .001$)

Table 8.4 Summary of research examining the relationship between mental health and the extrinsic, means dimension (*Continued*)

Authors	Sample	Measure of mental health	Findings
Thompson (1974)	532 Catholic mothers, fathers, and adolescents (195 boys, 337 girls)	Dogmatism as measured by Trodahl and Powell's Short Dogmatism scale	Extrinsic religious orientation was positively correlated with dogmatism among mothers, fathers, and adolescents (rs = .28, .38, and .28, all $ps < .001$)
Kahoe (1974)	518 freshmen at conservative college in the Midwest	Absence of authoritarianism as measured by the F-scale, and of dogmatism as measured by Rokeach's Dogmatism scale	Extrinsic religious orientation was positively correlated with authoritarianism (r = .33) and dogmatism (r = .30)
Kahoe (1975)	236 predominantly Baptist college students	Absence of authoritarianism as measured by the F-scale	Extrinsic religious orientation was positively correlated with authoritarianism across each of four subscales of the F-scale
Paloutzian, Jackson, and Crandall (1978)	Two samples: 84 introductory psychology students; 177 adults	Dogmatism as measured by Troldahl and Powell's Short Dogmatism scale	Extrinsic religious orientation had low, nonsignificant positive correlations with dogmatism for both students and adults (rs = .18 and .08)
Batson and Raynor-Prince (1983)	35 undergraduates interested in religion	Cognitive complexity as measured by Schroder's Paragraph Completion Test	Extrinsic religious orientation was nonsignificantly negatively correlated with cognitive complexity in dealing with interpersonal conflict (r = −.19)
Bergin, Masters, and Richards (1987)	78 BYU juniors and seniors	Tolerance and Flexibility scales of the California Psychological Inventory	Extrinsic religious orientation was negatively correlated with tolerance (r = −.24); not reliably related to flexibility
Watson, Hood, and Morris (1988)	201 introductory psychology students (94 men, 107 women)	Questionnaire measure of avoidance of existential confrontation outside the religious domain	No reliable relationship

Table 8.5 Summary of research examining the relationship between mental health and the intrinsic, end dimension

Authors	Sample	Measure of mental health	Findings
1. Using absence of illness as the criterion of mental health			
Watson, Hood, and Morris (1984, (Study 1)	85 introductory psychology students	Narcissism as measured by the Narcissistic Personality Inventory	Intrinsic religious orientation was negatively correlated with narcissism ($r = -.40, p < .001$)
Bergin, Masters, and Richards (1987)	32 former Mormon missionaries	Neurosis as measured by Irrational Beliefs Inventory; Beck Depression Inventory	Intrinsic religious orientation not reliably related to either measure
Levick and Delaney (1987)	193 introductory psychology students (63 men, 130 women)	Beck Depression Inventory	Intrinsic religious orientation not reliably correlated with Beck Depression Inventory
Watson, Hood, Morris, and Hall (1987)	145 introductory psychology students (64 men, 81 women)	Exploitative narcissism as measured by the Narcissistic Personality Inventory and the Narcissistic Personality Disorder scale	Intrinsic religious orientation was negatively correlated with exploitative narcissism as measured by the NPI and NPDS (both $rs = -.32, ps < .01$)
Chamberlain and Zika (1988)	172 young mothers in New Zealand	Life satisfaction measured by Andrews and Withey's global scale	Intrinsic religious orientation (inferred from two King and Hunt subscales) had low positive correlation with life satisfaction ($r = .17, p < .05$)
Watson, Hood, Foster, and Morris (1988)	198 undergraduates at a state university; 116 Pentecostal college students	Exploitative narcissism as measured by the Narcissistic Personality Inventory; two depression scales	Intrinsic religious orientation had low negative correlations with exploitative narcissism ($r = -.20, p < .001$) and both depressions scales ($rs = -.19$ and $-.26, ps < .01$)
Watson, Morris, and Hood (1988b)	Two studies: Samples were 125 and 211 undergraduates	Neurosis as measured by Irrational Beliefs Inventory and Neuroticism scale	Intrinsic religious orientation had no reliable relationship with irrational beliefs or with neuroticism

Table 8.5 Summary of research examining the relationship between mental health and the intrinsic, end dimension (*Continued*)

Authors	Sample	Measure of mental health	Findings
Watson, Morris, and Hood (1989b)	Summarizes results from 8 samples, ranging in size from 116 to 212, totalling 1397 undergraduates	Depression as measured by Costello and Comrey Depression scale	Intrinsic religious orientation had low negative correlations with depression (rs = $-.11$ to $-.39$, ps $< .05$ in 6 of 8 samples); across all samples, $r = -.20$)
Watson, Morris, and Hood (1989c)	286 undergraduates in psychology classes (110 men, 176 women)	Exploitative narcissism as measured by the Narcissistic Personality Inventory	Intrinsic religious orientation was negatively correlated with exploitative narcissism ($r = -.23$, $p < .001$)
Park, Cohen, and Herb (1990)	Two studies: 83 undergraduates each	Beck Depression Inventory (BDI)	In Study 1, intrinsic religious orientation was positively correlated with future depression among Catholics ($r = .48$), but no reliable relationship among Protestants; in Study 2, no reliable relationship among either Catholics or Protestants
Pargament et al. (1990)	586 members from 10 midwestern churches	Self-reported general health; perception of having handled a negative life event well	Intrinsic religious orientation had low positive correlation with general health ($r = .11$) and with perception ($r = .19$)
Genia and Shaw (1991)	309 adults or college students attending Protestant, Catholic, or Jewish services in Washington, D.C.	Beck Depression Inventory	Intrinsic religious orientation was negatively correlated with scores on the Beck Depression Inventory ($r = -.20$, $p < .001$)
Kass et al. (1991)	83 adult medical outpatients in hospital-based behavioral medicine program	Self-report of physical health on medical symptom checklist	Intrinsic religious orientation (measured by questionnaire assessing commitment and closeness to God) was negatively correlated with reported frequency of symptoms ($p < .01$) but not related to reduced discomfort or interference from symptoms

2. Using appropriate social behavior as the criterion of mental health			
Rice (1971)	151 male members of religious groups (Massachusetts)	Questionnaire measure of social adjustment	Tendency for intrinsically religious to score lower on social adjustment than nonreligious but to score higher than extrinsically religious
McClain (1977)	145 intrinsically religious and 133 nonreligious students from classes preparatory to helping professions	Absence of stereotyped femininity, restlessness, and egocentric sexuality as measured by diagnostic questionnaires	Intrinsically religious scored higher on stereotyped feminity but lower on restlessness and egocentric sexuality than did nonreligious
Kahoe (1974)	518 freshmen at conservative college in the Midwest	Responsibility scale from the California Psychological Inventory	Intrinsic religious orientation was positively correlated with Responsibility scale (r = .29)
Paloutzian, Jackson, and Crandall (1978)	Two samples: 84 introductory psychology students; 117 addults	Crandall's Social Interest scale	Intrinsic religious orientation was positively correlated with social interest among both students and adults (rs = .53 and .50, $ps < .001$)
Woodroof (1985)	447 freshmen at colleges affiliated with the churches of Christ	Self-reported status as a sexual virgin	Classification as intrinsic rather than extrinsic was positively associated with being a virgin ($p < .0001$)
Bergin, Masters, and Richards (1987)	78 BYU juniors and seniors	California Personality Inventory Sociability, Social Presence, Responsibility, Socialization, and Good Impression scales	Intrinsic religious orientation was positively correlated with each of these scales (rs = .24 to .44, $ps < .05$, for all but Social Presence, for which r = .07, ns)
Also see Chapters 9 and 10 for summary of research on the relationship between intrinsic religion and prejudice and helping			
3. Using freedom from worry and guilt as the criterion of mental health			
Magni (1971)	53 student nurses in Uppsala, Sweden	Attitudes toward death, fear of death, and death anxiety	Intrinsic religious orientation was negatively correlated with unfavorable attitudes toward death, fear of death, and death anxiety, but last two relationships were not statistically significant

Table 8.5 Summary of research examining the relationship between mental health and the intrinsic, end dimension (*Continued*)

Authors	Sample	Measure of mental health	Findings
Kahoe and Dunn (1975)	70 U.S. adults attending a church in a Kentucky town	Absence of fear of death	Intrinsic religious orientation was negatively correlated with fear of death
Minton and Spilka (1976)	67 religiously active people (aged 17 to 83)	Questionnaire measures of positive and negative perspectives on death	Intrinsic religious orientation tended to correlate positively with positive views of death and negatively with negative views of death, but no correlations were reliable
Spilka et al. (1977)	167 religiously involved individuals	Questionnaire measures of positive and negative perspectives on death	Intrinsic religious orientation was positively correlated with positive views of death and negatively with negative views (*p*s range from *n*s to $< .01$)
Bolt (1977)	62 undergraduate psychology students at Calvin College	Templer's Death Anxiety scale	Intrinsic religious orientation had low, nonsignificant negative correlation with death anxiety ($r = -.14$)
Patrick (1979)	35 Buddhist, 40 Baptist, and 16 Congregationalist worshipers on Christmas Day in Honolulu	Splika's Death Perspectives scales; Templer's Fear of Death scale	Intrinsic religious orientation had significant positive correlation with positive death outlook only for Buddhists ($r = .40$, $p < .05$); had significant negative correlation with negative outlook only for Baptists ($r = -.42$, $p < .01$); and was not reliably related to fear of death for any group
Sturgeon and Hamley (1979)	144 students at a conservative, church-related college	Questionnaire measures of state, trait, and existential anxiety	Group classifed as intrinsic scored lower than group classified as extrinsic on trait and existential anxiety; no reliable difference on state anxiety
Batson (1980)	80 undergraduates interested in religion	Percpetion of own religion as freeing self from existential concerns	Positive relationship ($r = .66$, $p < .001$)
Baker and Gorsuch (1982)	52 campers in religious wilderness camp	IPAT Trait Anxiety scale	Intrinsic religious orientation was negatively correlated with anxiety ($r = -.33$, $p < .05$)

Hood and Morris (1983)	Two samples; 105 undergraduates; 39 elderly	Questionnaire measures of death transcendence and death perspectives	Intrinsic religious orientation was positively correlated with use of religion for death transcendence, positively correlated with positive perspective on death, and negatively correlated with some negative perspectives ($ps < .01$)
Watson, Hood, Morris, and Hall (1985, Study 2)	194 introductory psychology students (98 men, 96 women)	McConahay and Hough Guilt scale	Intrinsic religious orientation was positively correlated with guilt ($r = .29, p < .001$)
Schoenrade (1986)	100 introductory psychology students (50 men, 50 women)	Questionnaire measures of positive and negative perspectives on death	Intrinsic religious orientation was positively correlated with positive perspective on death ($r = .52, p < .01$) and negatively correlated with negative perspective ($r = -.22, p < .05$)
Kraft, Litwin, and Barber (1987)	107 introductory psychology students (50 men, 57 women)	Death anxiety as measured by Collett-Lester Fear of Death scale	Intrinsic religious orientation was negatively correlated with death anxiety ($r = -.30, p < .001$)
Bergin, Masters, and Richards (1987)	61 BYU juniors and seniors	Taylor Manifest Anxiety scale	Intrinsic religious orientation was negatively correlated with anxiety ($r = -.27, p < .05$)
Levick and Delaney (1987)	193 introductory psychology students (63 men, 130 women)	Templer Death Anxiety scale	Intrinsic religious orientation had a low but significant negative correlation with death anxiety ($r = -.18, p < .01$)
Kojetin et al. (1987)	Three samples: 104 undergraduates; 49 Methodist seminary students; 85 United Church of Christ adults	Questionnaire measures of anxiety and of religious conflict	Intrinsic religious orientation was either not related or negatively related to anxiety and religous conflict
Springer (1987)	118 Catholic, Presbyterian, or Baptist church members in northern U.S.	Hoelter's Fear of Death scale	Intrinsic religious orientation was positively correlated with fear of being destroyed ($p < .05$) and negatively with fear of the unknown ($p < .001$)

Table 8.5 Summary of research examining the relationship between mental health and the intrinsic, end dimension (*Continued*)

Authors	Sample	Measure of mental health	Findings
Watson, Morris, and Hood (1987)	162 introductory psychology students (75 men, 87 women)	McConahay and Hough Guilt scale	Intrinsic religious orientation was positively correlated with guilt ($r > .50, p < .001$)
Watson, Morris, and Hood (1988a,b,c)	Six samples of undergraduates, ranging in size from 125 to 314	Questionnaire measure of social anxiety (3 studies), anxiety (5 studies), anxious overconcern (1 study)	Overall, intrinsic religious orientation had no reliable relationship with social anxiety or anxiety; it had a low but significant positive correlation with anxious overconcern ($r = .19, p < .05$)
Schaefer and Gorsuch (1991)	161 students at Christian colleges in southern California	IPAT Trait Anxiety Scale; trait anxiety portion of STAI	Intrinsic religious orientation was negatively correlated with both anxiety measures ($rs = -.35$ and $-.30$, $ps < .01$)
4. Using personal competence and control as the criterion of mental health			
Rice (1971)	151 male members of religious groups (Massachusetts)	Barron's Ego-Strength scale	Intrinsically religious scored lower on ego-strength than did relatively nonreligious, but difference may have been a function of age and denominational differences
Kahoe (1974)	518 freshmen at conservative college in the Midwest	Internal locus of control as measured by Rotter's Locus of Control scale	Intrinsic religious orientation was positively correlated with internal locus of control ($r = .24$)
Kopplin (1976)	1546 undergraduate and graduate students in the Midwest and Southwest	Internal locus of control as measured by Levinson's Control scales	Intrinsic (committed) religious orientation was positively correlated with God control and negatively correlated with internal, other, and chance control; only the God-control correlation was large.
McClain (1977)	145 intrinsically religious and 133 nonreligious students from classes preparatory to helping professions	Self-control, achievement potential, and assertiveness or ascendancy as measured by diagnostic questionniares	Intrinsically religious scored higher than nonreligious on self-control; no differences on achievement potential or assertiveness (ascendancy)

Pargament, Steele, and Tyler (1978)	133 U.S. adults (Protestant, Catholic, and Jewish)	Internal locus of control as measured by Levinson's Control scales	Intrinsic religious orientation was positively correlated with God control and internal control; it was negatively correlated with control by chance
Sturgeon and Hamley (1979)	144 students at a conservative, church-related college	Internal locus of control as measured by Rotter's Locus of Control scale	Group classified as intrinsic scored higher than group classified as extrinsic on internal locus of control
Acklin (1984)	120 adults ranging in age from 15 to 70 (60 men, 60 women)	Barron's Ego-Strength scale and Loevinger and Wessler test of ego development	No reliable relationship with either measure
Bergin, Masters, and Richards (1987)	33 BYU juniors and seniors	Self-control as measured by Rosenbaum's Self-Control Schedule	Intrinsic religious orientation was positively correlated with self-control ($r = .38$, $p < .01$)
Bargin, Masters, and Richards (1987)	78 BYU juniors and seniors	Self-Control, Achievement by Independence, and Intellectual Efficiency scales from California Psychological Inventory	Intrinsic religious orientation was positively correlated with self-control ($r = .32$) and intellectual efficiency ($r = .29$); it was nonsignificantly positively correlated with achievement by independence ($r = .17$)
Pargament et al. (1988)	197 Presbyterian and Lutheran church members	Self-directing, deferring, and collaborative problem solving	Partialling correlations with other styles, intrinsic religious orientation was negatively correlated with a self-directing problem-solving style ($r = -.38$), positively correlated with a collaborative style ($r = .23$), and not related to a deferring style
Jackson and Coursey (1988)	98 black adult members of a Baptist church in Washington, D.C.	Internal locus of control (Rotter scale) and God control; psychosocial competence measured by Behavioral Attributes of Psychosocial Competence scale	Intrinsic religious orientation was positively correlated with God control, with internal locus of control, and with psychosocial competence ($ps < .02$)
Waton, Morris, and Hood (1988b, Study 2)	125 introductory psychology students (58 men, 67 women)	Questionnaire measures of locus of control, hopelessness, general self-efficacy and social self-efficacy	Intrinsic religious orientation had low but significant negative correlation with hopelessness ($r = -.22$) and a low but significant positive correlation with general self-efficacy ($r = .16$); no reliable relation with locus of control or social self-efficacy

Table 8.5 Summary of research examining the relationship between mental health and the intrinsic, end dimension (*Continued*)

Authors	Sample	Measure of mental health	Findings
Watson, Morris, and Hood (1988c, Study 1)	157 introductory psychology students (73 men, 84 women)	Problem-avoidance scale of the Irrational Beliefs Test	Intrinsic religious orientation was negatively correlated with problem avoidance ($r = -.32, p < .001$)
Hathaway and Pargament (1990)	108 Presbyterian and Assembly of God church members	Psychosocial competence as measured by Behavioral Attributes of Psychosocial Competence scale	Intrinsic religious orientation was not reliably related to psychosocial competence, but LISREL analysis indicated a positive relationship mediated by religious coping style
Park, Cohen, and Herb (1990, Study 2)	83 undergraduates	Mirels's Internal Locus of Control scale	No reliable relationship
5. Using self-acceptance or self-actualization as the criterion of mental health			
McClain (1977)	145 intrinsically religious and 133 nonreligious students from classes preparatory to helping professions	Sense of personal and social adequacy as measured by diagnostic questionnaires	Intrinsically religious scored higher than nonreligious on sense of personal and social adequacy
Pargament, Steele, and Tyler (1978)	133 U.S. adults (Protestant, Catholic, and Jewish)	Low scores on a self-criticism scale	No relationship between intrinsic religious orientation and self-criticism score
Ventis, Batson, and Burke (1982)	34 introductory psychology students (16 men, 18 women)	Self-actualization as measured by Shostrom's Personal Orientation Inventory	For males, intrinsic religious orientation was negatively correlated with self-actualization; for females, there was no relationship
Watson, Hood, and Morris (1984)	Two studies; Samples were 85 and 317 introductory psychology students	Self-actualization as measured by Inner Support scale of Shostrom's Personal Orientation Inventory	No reliable relationship in either study

Watson, Hood, Morris and Hall (1985)	Two studies: Samples were 227 and 194 undergraduates	2 self-esteem scales (Rosenberg; Coopersmith) and Shostrom's Self-Acceptance scale	No reliable relationships with either self-esteem scale in either study; low but significant negative correlations with self-acceptance in each study ($rs = -.12$ and $-.25$)
Bergin, Masters, and Richards (1987)	78 BYU juniors and seniors	Self-acceptance scale of the California Psychological Inventory	No reliable relationship
Watson, Morris, and Hood (1987)	162 introductory psychology students (75 men, 87 women)	Two self-esteem scales (Rosenberg; Coopersmith), two self-acceptance scales (Berger; Phillips), and self-actualization as measured by the Inner Support scale of Shostrom's Personal Orientation Inventory	No reliable relationship with either self-esteem or self-acceptance measure; low but significant negative correlation with inner support ($r = -.17$, $p < .05$)
Watson, Morris, and Hood (1989c)	286 undergraduates in psychology classes (110 men, 176 women)	Self-acceptance as measured by Inner Support scale of Shostrom's Personal Orientation Inventory	Intrinsic religious orientation had no reliable relationship with inner support
Hathaway and Pargament (1990)	108 Presbyterian and Assembly of God church members	Self-esteem as measured by Rosenberg's Self-Esteem scale	Intrinsic religious orientation had no reliable relationship to self-esteem
6. Using personality unification and organization as the criterion of mental health			
Crandall and Rasmussen (1975)	71 students from adolescent psychology class (34 men, 37 women)	Crumbaugh and Maholick's Prupose-in-Life Test	Intrinsic religious orientation was positively correlated with purpose in life ($r = .31$, $p < .01$)
Soderstrom and Wright (1977)	427 introductory psychology students from 6 religious and 2 state colleges in the Midwest	Crumbaugh and Maholick's Purpose-in-Life Test	High intrinsics scored higher on purpose in life than low intrinsics ($p < .01$)

Table 8.5 Summary of research examining the relationship between mental health and the intrinsic, end dimension (*Continued*)

Authors	Sample	Measure of mental health	Findings
Paloutzian, Jackson, and Crandall (1978)	Two samples: 84 introductory psychology students; 177 adults	Crumbaugh and Maholick's Purpose-in-Life Test	Intrinsic religious orientation was positively correlated with purpose in life among both students and adults (rs = .34 and .37, $ps < .01$)
Chamberlain and Zika (1988)	172 young mothers in New Zealand	Crumbaugh and Maholick's Purpose-in-Life Test	Intrinsic religious orientation (inferred from two King and Hunt subscales) was positively correlated with purpose in life (r = .27, $p < .01$)
Kass et al. (1991)	83 adult medical outpatients in hospital-based behavioral medicine program	Self-report questionnaire measure of life purpose and satisfaction	Intrinsic religious orientation (measured by questionnaire assessing commitment and closeness to God) was positively correlated with self-reported life purpose ($p < .05$)
7. Using open-mindedness and flexibility as the criterion of mental health			
Hoge and Carroll (1973)	515 church members from northern U.S.; 343 church members from southern U.S.	Dogmatism as measured by Trodahl and Powell's Short Dogmatism scale	Intrinsic religious orientation was positively correlated with dogmatism in both North and South (rs = .24 and .25, $ps < .001$)
Thompson (1974)	532 Catholic mothers, fathers, and adolescents (195 boys, 337 girls)	Dogmatism as measured by Trodahl and Powell's Short Dogmatism scale	No reliable relationship
Kahoe (1974)	518 freshmen at conservative college in the Midwest	Absence of authoritarianism as measured by the F-scale, and of dogmatism as measured by Rokeach's Dogmatism scale	No relationship was found between intrinsic religious orientation and either authoritarianism or dogmatism; but when response-set bias was controlled in a subsample, a positive correlation with authoritarianism was found

Kahoe (1977)	200 Southern Baptist college students selected so as to control for response-set bias	Absence of authoritarianism as measured by Krug's 6 F-scale factors	Intrinsic religious orientation was positively correlated with conventionalism and superstition factors; no relation for other 4 factors
Paloutzian, Jackson, and Crandall (1978)	Two samples: 84 introductory psychology students; 177 adults	Dogmatism as measured by Troldahl and Powell's Short Dogmatism scale	Intrinsic religious orientation had low positive correlation with dogmatism among both students (r = .14, *ns*) and adults (r = .22, $p < .001$)
Batson and Raynor-Prince (1983)	35 undergraduates interested in religion	Cognitive complexity as measured by Schroder's Paragraph Completion Test	No reliable relationship was found between intrinsic religious orientation and cognitive complexity in dealing with interpersonal conflict
Bergin, Masters, and Richards (1987)	78 BYU juniors and seniors	Tolerance and Flexibility scales of the California Psychological Inventory	Intrinsic religious orientation was positively correlated with tolerance (r = .35); not reliably related to flexibility
Watson, Hood, and Morris (1988)	201 introductory psychology students (94 men, 107 women)	Questionnaire measure of avoidance of existential confrontation outside the religious domain	No reliable relationship

Table 8.6 Summary of research examining the relationship between mental health and the quest dimension

Authors	Sample	Measure of mental health	Findings
1. Using absence of illness as the criterion of mental health			
Levick and Delaney (1987)	193 introductory psychology students (63 men, 130 women)	Beck Depression Inventory	Quest orientation had a low but significant positive correlation with Beck Depression Inventory (r = .15, $p < .05$)
Leak, et al. (1990, Study 1)	133 undergraduates from Jesuit or state university	Questionnaire measure of neuroticism	Quest orientation had low, nonsignificant negative correlation with neuroticism ($r = -.17$)
Pargament et al. (1990)	586 members from 10 midwestern churches	Self-reported health; perception of having handled negative life event well	No reliable relationship
2. Using appropriate social behavior as the criterion of mental health			
See Chapters 9 and 10 for summary of research on the relationship between the quest orientation and prejudice and helping			
3. Using freedom from worry and guilt as the criterion of mental health			
Batson (1980)	80 undergraduates interested in religion	Perception of own religion as freeing self from existential concerns	No reliable relationship
Schoenrade (1986)	100 introductory psychology students (50 men, 50 women)	Questionnaire measures of positive and negative perspectives on death	Quest orientation was negatively correlated with positive view of death ($r = -.18$, $p < .05$) and positively correlated with negative view of death (r = .25, $p < .01$)
Levick and Delaney (1987)	193 introductory psychology students (63 men, 130 women)	Templer Death anxiety scale	No reliable relationship
Kojetin et al. (1987)	Three samples: 104 undergraduates, 49 Methodist seminary students; 85 United Church of Christ adults	Questionnaire measures of anxiety and of religious conflict	Quest orientation was positively correlated with anxiety and religious conflict (rs = .18 to .53)

Springer (1987)	188 Catholic, Presbyterian, or Baptist church members in northern U.S.	Hoelter's Fear of Death scale	Quest orientation was positively correlated with 2 of 9 fear of death dimensions: fear of the unknown and fear of premature death ($ps < .05$)
Watson, Morris, and Hood (1987)	162 introductory psychology students (75 men, 87 women)	McConahay and Hough Guilt scale	No reliable relationship reported
Leak et al. (1990, Study 1)	133 undergraduates from Jesuit or state university	Questionnaire measure of social anxiety	Quest orientation had low but significant correlation with social anxiety ($r = -.26$, $p < .05$)
4. Using personal competence and control as the criterion of mental health			
Barron (1968)	50 women in their 40s who experienced a "crisis in belief" while in college	Ratings or intellectual excellence, autonomy, and mastery	"Belief for oneself" was positively associated with intellectual excellence ($r = .39$), autonomy ($r = .38$), and mastery ($r = .35$)
Acklin (1984)	120 adults ranging in age from 15 to 70 (60 men, 60 women)	Barrons' Ego-Strength scale and Loevinger and Wessler test of ego development	No reliable relationship
Pargament et al. (1988)	197 Presbyterian and Lutheran church members	Self-directing, deferring, and collaborative problem solving	Partialling correlations with other styles, quest orientation had low but significant positive correlations with self-directing and collaborative problem-solving styles (both $rs = .17$); no reliable relationship with deferring style
Leak et al. (1990, Study 1)	133 undergraduates from Jesuit or state university	Questionnaire measure of will to achieve	No reliable relationship
5. Using self-acceptance or self-actualization as the criterion of mental health			
Barron (1968)	50 women in their 40s who experienced a "crisis in belief" while in college	Ratings of capacity for further growth, self-insight, and self-awareness	"Belief for oneself" was positively associated with capacity for further growth ($r = .36$), self-insight ($r = .38$), and self-awareness ($r = .35$)
Ventis, Batson, and Burke (1982)	34 introductory psychology students (16 men, 18 women)	Self-actualization as measured by Shostrom's Personal Orientation Inventory	No relationship between measures of the quest orientation and self-actualization for either men or women

Table 8.6 Summary of research examining the relationship between mental health and the quest dimension (*Continued*)

Authors	Sample	Measure of mental health	Findings
Watson, Hood, Morris, and Hall (1985, Study 1)	227 introductory psychology students (97 men, 130 women)	Two self-esteem scales (Rosenberg; Coopersmith) and Shostrom's Self-Acceptance scale	No clear relationship with either self-esteem measure or with the Self-Acceptance scale
Watson, Morris, and Hood (1987)	162 introductory psychology students (75 men, 87 women)	Two self-esteem scales (Rosenberg; Coopersmith), two self-acceptance scales (Berger; Phillips), and self-actualization as measured by Inner Support scale of Shostrom's Personal Orientation Inventory	No reliable relationships
Leak et al. (1990, Study 1)	133 undergraduates from Jesuit or state university	Rosenberg's Self-Esteem scale and self-actualization as measured by revised Personal Orientation Inventory	Quest orientation was positively correlated with self-esteem and self-actualization (rs = .28 and .27, $ps < .01$)
6. Using personality unification and organization as the criterion of mental health			
None			

7. Using open-mindedness and flexibility as the criterion of mental health

Barron (1968)	50 women in their 40s who experienced a "crisis in belief" while in college	Flexibility as measured by the California Personality Inventory; independence of judgment; rating of lack of authoritarianism	"Belief for oneself" was positively associated with flexibility ($r = .31$) and independence ($r = .42$), and negatively with authoritarianism ($r = -.33$)
Batson and Raynor-Prince (1983)	35 undergraduates interested in religion	Cognitive complexity as measured by Schroder's Paragraph Completion Test	Quest orientation was positively associated with cognitive complexity in dealing with interpersonal conflicts ($r = .34$)
Watson, Hood, and Morris (1988)	201 introductory psychology students (94 men, 107 women)	Questionnaire measure of avoidance of existential confrontation outside the religious domain	No reliable relationship
Leak et al. (1990, Study 1)	133 undergraduates from Jesuit or state university	Questionnaire measures of openness to experience and of rigidity	Quest orientation was positively correlated with openness ($r = .36$, $p < .01$) and negatively correlated with rigidity ($r = -.21$, $p < .05$)

Table 8.7 Line score on research examining the relationship between mental health and three different dimensions of individual religion

	Dimension of individual religion								
	Extrinsic, means			Intrinsic, end			Quest		
Conception of mental health	+	?	−	+	?	−	+	?	−
Absence of illness	1	7	11	11	7	1	0	2	1
Appropriate social behavior	0	1	4	5	0	1	No data		
Freedom from worry and guilt	0	7	15	15	5	4	1	4	3
Personal competence and control	0	4	9	11	4	3	2	2	0
Self-acceptance, self-actualization	0	5	3	1	8	3	2	3	0
Unification and organization	0	3	0	5	0	0	No data		
Open-mindedness and flexibility	0	4	6	1	6	2	3	1	0
Total	1	31	48	49	30	14	8	12	4

Note: The three columns under each dimension of individual religion indicate first, the number of reports of a positive relationship with each conception of mental health (+); second, the number of reports of no clear relationship (?); and third, the number of reports of a negative relationship (−).

the extrinsic, means dimension and mental health; thirty-one indicate no clear relationship. In only one case has evidence been found of a positive relationship between the extrinsic, means dimension and mental health; Park, Cohen, and Herb (1990) reported a negative correlation with depression among Protestant undegraduates.

Still, there are differences in the relationship to the different conceptions of mental health that are worth noting. The clearest negative relationships are for appropriate social behavior, freedom from worry and guilt, personal competence and control, and open-mindedness and flexibility. Contrary to our expectations, both for self-acceptance or self-actualization and for unification and organization, there is no clear relationship. The negative relationships under self-acceptance and self-actualization are most often for measures of self-acceptance; no-relationship findings are most common for measures of self-esteem. Moreover, concerning freedom from worry and guilt, a relationship is consistently found with measures of general trait anxiety and with measures of death anxiety, but studies using measures of guilt report no reliable relationship.

Although there are more negative than no-relationship findings for absence of illness, the negative correlations are generally low and not consistent across studies. Positive correlations with measures of depression or narcissism appear in some studies but not in others. And there is the one negative correlation with depression.

In sum, the research provides virtually no evidence that the extrinsic, means dimension of personal religion is positively associated with mental health, and it provides considerable evidence that this dimension is negatively associated with several conceptions of mental health. This is very much as Allport (1950) and we, following him, had predicted. On the other

hand, some tempering of the extremity of the predictions seems in order. Evidence does not suggest that the relationship of the extrinsic, means dimension to mental health is as uniformly negative as either Allport's expections or ours in Table 8.3 suggest. For several conceptions of mental health—especially for self-acceptance or self-actualization and for unification and organization—there seems to be no clear relationship.

The intrinsic, end dimension. Allport would have expected a positive relationship between the intrinsic, end dimension and all seven conceptions of mental health. We expected a positive relationship with only four: appropriate social behavior, freedom from worry and guilt, personal competence and control, and unification and organization. We expected a negative relationship with open-mindedness and flexibility.

With several important qualifiers, the results of the research summarized in the line score in Table 8.7 support our expectations. The positive association with appropriate social behavior is most apparent on self-report measures. For freedom from worry and guilt, there is consistent evidence of a negative correlation with measures of general trait anxiety and death anxiety, but the limited evidence that exists indicates a positive correlation with measures of guilt. For personal competence and control, as predicted, the major source of the positive relationship is perception of God control; evidence of a relationship with either perceived internal locus of control or ego-strength is mixed, usually indicating either no clear relationship or a negative relationship.

We were unable to predict a clear relationship between the intrinsic, end dimension and two conceptions of mental health: absence of illness and self-acceptance or self-actualization. The evidence shows no clear relationship for self-acceptance or self-actualization. But it tends toward the positive for absence of illness due to generally negative (but low) correlations with measures of depression and exploitative narcissism and generally positive (but low) correlations with measures of life satisfaction, health, and well-being.

Finally, there is little indication that the relationship to measures of open-mindedness and flexibility is positive, as Allport would have predicted, but there is also little evidence that it is negative, as we predicted. The most common finding is no clear relationship. To anticipate our argument in the next chapter, however, there is some reason to believe that people scoring high on the intrinsic, end dimension are especially concerned to *appear* open-minded, so the relationship may be more negative than the results of these nine studies using paper-and-pencil measures suggest.

Overall, measures of the intrinsic, end dimension relate positively to measures of mental health in forty-nine findings, relate negatively in fourteen findings, and show no clear relationship in thirty findings. So, although the relationship of this dimension to the various conceptions of mental health is generally positive, it is not as uniformly positive as Allport (1950) predicted. On the other hand, there is little evidence of the negative relationship with open-mindedness and flexibility that we predicted.

The quest dimension. We had expected the relationship of the quest dimension to mental health to be very different from the relationship of the intrinsic, end dimension. In general, where one related positively, we either expected that the other would relate negatively or we could not make a clear prediction. The only conception to which we expected both dimensions to relate positively was personal competence and control, and even for this conception we assumed the relationship would be a result of very different factors. We expected the intrinsic, end dimension to be associated with reliance on God, and the quest dimension with self-reliance.

When we look at the evidence summarized in Table 8.7 for the quest dimension, we are first and foremost impressed by how limited it is. Data for this dimension are by far the most sparse, although not nearly as sparse now as at the time of Batson and Ventis's (1982) review. They were able to cite only six findings based on four different studies; we now have twenty-four findings based on fifteen different studies.

In the limited research that exists, the dominant finding is of no clear relationship between the quest dimension and measures of the various conceptions of mental health (twelve of the twenty-four findings). Still, the evidence of positive and negative relationships that exists generally patterns as predicted. Evidence generally supports the predicted positive relationship between the quest dimension and measures of open-mindedness and flexibility. Evidence is less supportive of the predicted positive relationships with personal competence and control and with self-acceptance or self-actualization. Some studies report the predicted positive relationship; others report no clear relationship.

We predicted two negative relations for the quest dimension. The available evidence provides qualified support for our prediction of a negative relationship with measures of freedom from worry and guilt. The evidence includes several positive correlations with measures of anxiety, especially death anxiety, but a negative correlation with social anxiety. The one study measuring guilt revealed no reliable relationship. There is still no evidence concerning the relationship to unification and organization, for which we also predicted a negative relationship.

Having looked at the mass of data on the religion–mental health relationship, we must once again emphasize the methodological limitations of this research. The quantity of research is certainly great, and it is increasing all the time; unfortunately, the quality is neither great nor increasing. Virtually all of the studies are correlational, and the measures of religion and mental health are taken at the same time, preventing clear causal inference. Assessment of mental health is almost always based on self-reports, which may at times be biased by a desire to present oneself in a good light. Samples are, at times, from unusual populations, leaving the generalizability of findings unclear. Although we have suggested the need for more data in several areas, quality is a far more important research virtue than is quantity. There-

fore, we do not wish to call for more research on the religion–mental health relationship without calling even more loudly for *better* research.

Which of the Three Dimensions of Individual Religion Is Most Closely Associated with Increased Mental Health?

Stepping back from the mass of data and comparing the different patterns for the three dimensions of individual religion, it seems clear that what dimension one looks at will have a dramatic effect on one's conclusions about the relationship between religion and mental health. The generally negative relationship between amount of religious involvement and mental health noted earlier seems to be a product of the extrinsic, means dimension. Neither the intrinsic, end dimension nor the quest dimension appears to be negatively related to mental health; the relationships for each are, if anything, generally positive.

At the same time, the relationships for the end and quest dimensions are quite different. In general, the findings reveal more positive relationships for the intrinsic, end dimension than for the quest dimension. But the pattern shifts depending on the conception of mental health. The clearest positive relations for the end dimension are for appropriate social behavior, freedom from worry (but not guilt), personal competence and control, and unification and organization. For the quest dimension, there are no data for the first and last of these conceptions (although data presented in the next two chapters suggest a positive relation with at least some manifestations of appropriate social behavior), and for freedom from worry (but not guilt) the relationship is, if anything, negative. For personal competence and control, the relationship of the quest dimension seems somewhat positive, but for different reasons than for the end dimension. For the end dimension this relationship is based more on reliance on God; for the quest dimension it is based more on self-reliance. Positive relations for the quest dimension exist with open-mindedness and flexibility and, possibly, with self-acceptance and self-actualization. The end dimension does not appear to relate positively to either of these conceptions of mental health.

Which of these patterns indicates greater mental health—the pattern of relationships associated with the intrinsic, end dimension or the pattern associated with the quest dimension? An answer will, of course, depend on the conception of mental health one prefers. Freedom from worry and guilt is a favorite conception among psychoanalytically oriented therapists; open-mindedness and flexibility are more highly valued by social psychologists. So we might expect individuals more influenced by the psychoanalytic tradition to consider the former a more important sign of health, and those more influenced by social psychology to consider the latter more important. As a result of these preferences, we might expect those influenced by the psychoanalytic tradition to associate the intrinsic, end dimension more

closely with mental health, and those influenced by social psychology to associate the quest dimension more closely with mental health.

We would caution against any clear-cut choice between these alternatives. Even though, given our social-psychological perspective, we may be inclined to say that freedom from worry and guilt is not as important for mental health as open-mindedness, we recognize that such freedom may be extremely important to those individuals, like Tolstoy, who are consumed by fear of death or a sense of meaninglessness and worthlessness. For such individuals, freedom from those whispering doubts, "Why should I live? Why should I do anything? Is there in life any purpose which the inevitable death which awaits me does not undo and destroy?" (Tolstoy, 1904, p. 21), may well be the most important thing in life. But having said this, we should not forget the lesson learned in Chapter 7: If this freedom is attained through devout, intrinsic religious belief, it is apt to be bought at the price of bondage to the belief.

SUMMARY AND CONCLUSION

"Divide and conquer" has been our strategy in attacking the complex and contradictory evidence concerning the relationship of religion to mental health. First, we divided the concept of mental health into seven distinct conceptions. This division proved helpful in understanding the mass of data on the relationship between mental health and amount of religious involvement. We found that the seemingly contradictory conclusions in the research reviews of Becker, Dittes, and Sanua could be accounted for by their different conceptions of mental health. Like the legendary blind men describing the elephant, each of these empirical experts appears to have been right for that part of the evidence that he touched. Becker dealt with absence of symptoms of mental illness, and for this conception the relationship between religion and mental health appears to be as he claimed, positive. Dittes dealt with personal competence and control, self-acceptance or self-actualization, and open-mindedness and flexibility, and for these conceptions the relationship appears to be as he claimed, negative. Sanua dealt with absence of illness, freedom from worry and guilt, self-acceptance or self-actualization, and open-mindedness and flexibility, and across these four conceptions the relationship appears to be as he claimed, unclear.

Second, we divided the broad concept of religious involvement into the three dimensions proposed in Chapter 6—as an extrinsic means to self-serving ends, as an intrinsic end in itself, and as a quest. This division also proved helpful because we found that these three dimensions relate to the various conceptions of mental health in very different ways. The extrinsic, means dimension appears to have a rather pervasive negative relationship to mental health, regardless of how mental health is conceived. Both the intrinsic, end dimension and the quest dimension appear to have positive relationships with at least some conceptions of mental health.

The instrinsic, end dimension is positively associated with reports of (1)

greater absence of illness, (2) more appropriate social behavior, (3) greater freedom from worry (but not guilt), (4) greater personal competence and control, and (5) greater unification and organization, but not with (6) greater self-acceptance or self-actualization or (7) greater open-mindedness and flexibility. The quest dimension is positively associated with (1) greater open-mindedness and flexibility and, possibly, with (2) greater personal competence and control and (3) greater self-acceptance, but not with (4) greater absence of illness or (5) greater freedom from worry. These different patterns for the end and quest dimensions are generally consistent with the broad hypotheses proposed in Chapter 7: The intrinsic, end dimension leads to freedom from existential concerns and a sense of competence based on one's connectedness to the Almighty but, at the same time, to an inflexible bondage to one's beliefs. In contrast, the quest dimension leads to neither.

Although the empirical evidence generally supports our expectations concerning the relationship between each of the three dimensions and mental health, it also underscores the need for further research. Even excluding the second conception, appropriate social behavior, on which further data will be presented in Chapters 9 and 10, a look at Table 8.7 reveals that often the evidence for a given relationship is limited to less than a half dozen correlational findings. And for the relationship of the quest dimension to unification and organization, there is no evidence at all. Even greater than the need for more research in this area, however, is the need for better research.

We began this chapter with the case of young Francis of Assisi and the question of whether his religion was a force for mental health or sickness. We found that had we been able to take him to some of the leading psychotherapists in history to ask their opinion, we would probably have gotten conflicting views. Freud and Ellis would almost certainly have diagnosed sickness; Boisen might have said that Francis was sick but on his way to health; Jung, Allport, and Bergin would likely have contended that Francis's religion was an important source of mental health. We, if not Francis, would have been left very confused.

But just as our strategy of divide and conquer enabled us to make sense of the apparent contradictions among the empirical experts, it also enables us to make sense of the apparent contradictions among the therapeutic experts. Our analysis suggests that before answering the question of whether religion is a force for health or sickness in the life of Saint Francis—or anyone else—we must specify the dimension of religion and the conception of mental health that we have in mind. If, for example, we are referring to the extrinsic, means dimension and freedom from worry and neurotic anxiety, as Freud seems to have been, then the available evidence supports Freud's diagnosis; the relationship is negative. If we are referring to the intrinsic, end dimension and this same conception of mental health, as Jung and Allport seem to have been, then the available evidence supports their diagnosis; the relationship is positive.

It may seem that our answer to the question of whether religion is a force for mental health or sickness is equivocal, that we are simply saying, "It depends." Indeed, we are saying that it depends, but we do not think our answer is equivocal. We do not think so because we are also saying on *what* it depends. It depends on the particular dimension of religion and particular conception of mental health in question. Once the dimension and conception are specified, then our analysis permits us tentatively to answer whether the relationship is positive, negative, or unclear. Our answer is complex but not, we think, equivocal. To the contrary, we think it has enabled us to sort out at least some of the confusion and apparent contradiction that has for decades entangled the relationship between religion and mental health.