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THE WORLDVIEW ASSESSMENT INSTRUMENT (WAI): THE

DEVELOPMENT AND PRELIMINARY VALIDATION OF AN

INSTRUMENT TO ASSESS WORLD VIEW COMPONENTS

RELEVANT TO COUNSELING AND

PSYCHOTHERAPY

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Mark Edward Koitko-Rivera _____ 4 February 2000

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the secret to raising children is simply to love them, and she demonstrated that principle well. If I have struggled successfully through painful and daunting obstacles to complete this research and the degree it represents, I was able to do that because I learned to believe in myself, and to persist through all obstacles, under her loving tutelage. No tribute can be sufficient.

It is written, "The upper world moves in response to the lower world" (*Zohar* I 164a; Sperling & Simon, 1984, p. 129). I am truly grateful for the response of the upper world to my humble efforts.

DEDICATION

This dissertation is dedicated to my mother

Sophie Wanda Koltko

who lovingly taught me to never, ever give up.

We are what we think.

All that we are arises with our thoughts.

With our thoughts we make the world.

—Buddha, *Dhammapada*

We don't see things as they are, we see them as we are.

—Anaïs Nin

Psychologists strive to be aware of their own belief systems, values, needs, and limitations and the effect of these on their work.

—Ethical Principles of Psychologists

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CHAPTER I

THE RESEARCH OBJECTIVE

The objective of this study was the development and preliminary validation of a multi-scale instrument to assess selected world view assumptions that are relevant to psychotherapy and counseling. This chapter presents: a) an introduction to the world view construct, b) some reasons why the study of this construct is important for the discipline of psychology, c) a description of the assessment challenges in this area, d) a formal statement of research objectives, and e) conceptual and operational definitions of the world view construct and those aspects of it that are addressed in this study.

The World View Construct

This portion of the chapter describes, in a general way, what world views are, and the philosophical background to the world view concept. World views are distinguished from values and general beliefs, and examples of world view beliefs are given.

What World Views Are

The term *world view* comes from the German word *Weltanschauung*, which literally means a view or perspective on the world or the universe. The term is "used to describe one's total outlook on life, society and its institutions" (Wolman, 1973, p. 406). In

the broadest sense, a world view is the interpretive lens one uses to approach and understand reality and one's existence within it. "A world view acts as a 'filter' through which phenomena are perceived and comprehended" (M. E. Miller & West, 1993, p. 3).

> A set of interrelated assumptions about the nature of the world is called a *world view*. A particular world view determines a good deal about the kinds of concepts we have and so, world views determine our conceptual systems. (Overton, 1991, p. 269, italics original).

A world view is a way of describing the world and life within it. It is a set of beliefs that includes limiting statements and assumptions regarding what the world is, what exists in the world, what experiences are good or bad, and what types of behavior and relationships are proper or improper. A world view defines what can be known in the world, and how it can be known; it defines what can be done or accomplished in the world, and how it can be done. In addition to defining what goals *can* be sought in life, a world view defines what goals *should* be pursued. World views are composed of assumptions that may be unproven, even unprovable.

For example, some people assume that the universe and life are the product of accidental forces that acted blindly, without any guiding intelligence; that human consciousness is delimited by birth and death; that ethics are situational and morality relative; and, that valid knowledge is available strictly through the process of scientific inquiry. Other people assume that the universe and life are the product of a divine intelligence and will; that human consciousness began before birth and continues after death; that ethics are universal and morality

absolute; and, that valid knowledge is also available through revelatory means. These are only two of many possible distinct world views.

Even in the brief descriptions above, these two world views differ radically in the ways that they address philosophical issues of cosmogony (the study of the origin of the physical universe), ontology (the study of being and reality), axiology (the study of values), and epistemology (the study of knowledge). Many more world views could be described just in terms of these categories of thought, and many more categories of thought could be introduced into the discussion (e.g., regarding the meaning of life, explanations for causality, or what is considered appropriate in terms of various interpersonal relations).

World views are not optional. "More accurately, we are possessed by our world view as much as we possess it. ... [W]e can never unimprison ourselves, except in small measure, from our world view" (Sarason, 1984, p. 477). It has been posited by scholars in cultural psychology that, in the face of existential uncertainty, human beings universally form constituted worlds (Shweder, 1995)—that is, a sense of reality based on a world view.

One fundamental aspect of world view models common across most thinkers in this area is that reality is not—and, even in principle, cannot be—apprehended directly by individuals, but is viewed, as it were, through a lens of assumptions, a lens that constitutes a world view. What one sees in a photograph is largely dependent on what type of lens and filter are used; so too, what one is aware of and how one interprets reality is largely dependent upon one's world view (Kluckhohn & Strodtbeck, 1961/1973, pp. 4-6).

However, it would be easy to be misled by this and other metaphors into underestimating the power that one's world view has for shaping one's experiential and conceptual world. One psychologist has described the central importance of world view for the life of the individual thusly:

> Our world view is more than a silent partner in our thinking and actions; it is, so to speak, the owner of the enterprise but in ways that allow us to believe in the myth that we are masters of our fate and captains of our souls. (Sarason, 1984, p. 478)

Another way to put this is that a world view has enormous practical influence on the life of the person who holds it. It has been noted that "the value priorities of individuals represent central goals that relate to all aspects of behavior" (P. B. Smith & S. Schwartz, 1997, p. 79). This statement can be extended: an individual's world view represents central goals and methods that guide many, and perhaps all, important aspects of that individual's behavior.

Although some have applied the term world view specifically to cultures rather than to individuals (Mannheim, 1923/1952), in the present research, the term will be applied to individuals. This is accepted practice in the literature of multicultural counseling (Grieger & Ponterotto, 1995; Treviño, 1996).

Philosophical Background to World View

In philosophical terms, the contemporary concept of world views proceeds from an inherently postmodern point of view. That is, the world view concept implies that people's ideas about the world are not a direct representation of reality; indeed, as those who take

postmodern approaches in psychology point out, such a direct representation is impossible, either in the personal or the scientific sphere, even in principle. As the educational psychologist Steiner Kvale put it, "There exists no pure, uninterpreted datum; all facts embody theory" (Kvale, 1990/1995, p. 19), a statement that also can be applied to everyday judgments about the world.

Within psychology, postmodern paradigms manifest in social constructionist approaches in personality theory (Cushman, 1990; Gergen, 1985, 1990; Hermans, Kempen, & van Loon, 1992), in constructivist approaches in psychotherapy (Neimayer & Mahoney, 1995), and in multicultural counseling and psychotherapy theory and research (González, Biever, & Gardner, 1994). These approaches emphasize how people create their knowledge and understanding of the world, rather than focusing on evaluating the knowledge held by individuals or cultures against a universal measure of truth (González, Biever, & Gardner, 1994). The world view concept is consistent with social constructionist approaches, holding that we do not discover the world; rather, we create the experienced world (Berger & Luckmann, 1966/1967) in view of the assumptions that we hold. In words attributed to the writer Anaïs Nin, "we don't see things as they are, we see them as we are."

None of this is to imply that postmodern approaches are beyond critique. It has been asserted that postmodern approaches tend toward epistemic and moral relativism, and that such approaches are unclear concerning explanations of behavior—they may reject determinism, but leave unspoken just how behavior occurs (Slife & Williams, 1995,

pp. 57-58). In the opinion of the present writer, the aforementioned characteristics of postmodern approaches, far from being flaws, are positive virtues for the sake of the present study.

It is possible, and indeed preferable, to take a position of functional agnosticism in a study such as this. That is, it is appropriate to leave, unanswered, questions regarding the ultimate bases of epistemology, morality, and behavior, in the hopes that this functional agnosticism will allow researchers to approach the beliefs of research participants without prejudice. This is not to say that researchers should eschew holding positions on these issues, either as people or as therapists—but it is crucial to hold a functional or "as if" agnosticism during the conduct of world view research, of all research areas. Simply put, we cannot hope to assess people's beliefs on such sensitive issues as dimensions of world view if we cannot put our own beliefs to the side on a consistent basis, during the conduct of our research. To do otherwise is to be profoundly disrespectful of our research participants, and to skew our perceptions of their beliefs.

A different type of critique can be made of world view studies on the grounds that the construct proceeds from an implicitly structuralist position. That is, it is axiomatic in world view studies that behavior, cognition, and affect are all influenced by an underlying structure—a system of beliefs or assumptions woven into a world view—that is unobservable; going farther, it is axiomatic that behaviors, cognitions, and affect cannot be fully understood except in light of their underlying world view (Hoshmand, 1996, p. 37; F. R. Kluckhohn, 1950; F. R. Kluckhohn & Strodtbeck, 1961/1973, pp. 4-6; Miller & West, 1993, p. 3;

Overton, 1991, p. 269; Treviño, 1996). All of this involves an implicitly structuralist paradigm (Slife & Williams, 1995, p. 49).

Being implicitly structuralist, world view models thus are heir to the critical questions that can be directed at any structuralist position. Why is *this* structure so important? Why should this structure exist at all? What are these structures called world views—and are they even real (Slife & Williams, 1995, pp. 52-54)?

A full consideration of these issues would require an extensive review of issues in philosophy of psychology, which would take us rather far afield. However, it is possible to render a general outline of a response. This response is based on the work of Kurt Gödel, who has been hailed as "the most important logician of the 20th century" (Feferman, 1986, p. 1).

Gödel published in 1931 a mathematical proof that has come to be known as his Incompleteness Theorem. As Gödel summarized his work in 1963, the Incompleteness Theorem states that

> ... it can be proved rigorously that in *every* consistent formal [logical] system that contains a certain amount of finitary number theory there exist undecidable arithmetic propositions and that, moreover, the consistency of any such [logical] system cannot be proven in the system. (Gödel, 1931/1986, p. 195, emphasis in original)

The impact of this theorem goes far beyond arithmetic or even number theory. Gödel's Incompleteness Theorem is a major step on the way to a more general, as-yet-unproven hypothesis, namely, that all logical systems include statements that cannot be proven from within those systems. If this hypothesis were true, it would establish

that unprovable assumptions are unavoidable aspects of logical systems.

World views can be thought of as the assumptions that are necessary for any sort of human logic—everyday deduction and inference—to function, everything from "how I plan to cross the street safely" to "how I should conduct my life." If indeed Gödel's work can ever be extended in the fashion outlined above, some construct such as world view would be required for any sort of rational processes to function; as such, the world view construct would be fundamental to mental life. (Some have faulted the application of Gödel's Theorem to social theory; Gross & Levitt, 1994, p. 78; Sokal & Bricmont, 1998/1999, pp. 178-179. The present author considers the use of the theorem justified here, since its application here is confined to logical systems, albeit embodied ones.)

World Views, Values, and Beliefs

It is important to distinguish between world views, values, and beliefs. The relationship between these concepts is depicted in Figure 1.

World views and values are all beliefs. However, values represent only one type of belief, while world views encompass several types of belief (including values). Milton Rokeach, who has been credited with bringing much conceptual order to the study of values (Braithwaite & Scott, 1991), put it thus:
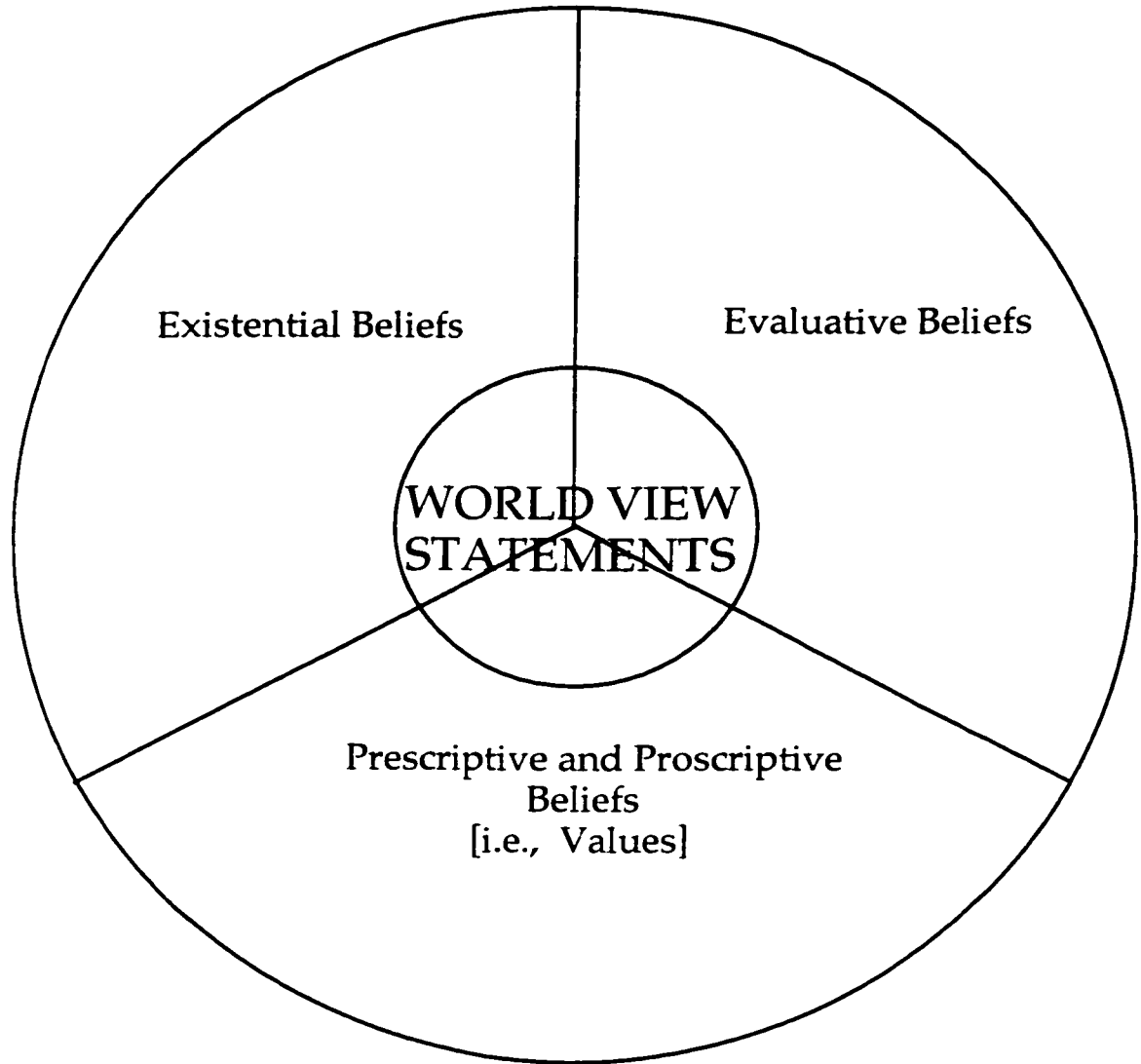
Figure 1. Conceptual relationship between beliefs, values, and world view statements.

> Three types of beliefs have ... been distinguished: *descriptive or existential beliefs*, those capable of being true or false; *evaluative beliefs*, wherein the object of belief is judged to be good or bad; and *prescriptive or proscriptive beliefs*, wherein some means or end of action is judged to be desirable or undesirable. A value is a belief of the third kind—a prescriptive or proscriptive belief. (Rokeach, 1973, pp. 6-7; citation omitted; emphasis added)

World view statements may refer to beliefs of any of the three kinds mentioned by Rokeach.

World view statements that describe entities that are believed to exist in the world (e.g., "There exist a God and Goddess who care for me personally") are clearly what Rokeach called existential beliefs. World view statements concerning the nature of what can be known or done in the world (e.g., "There really is such a thing as free will," or, "Scientific research is a reliable way to establish the truth") are also existential statements or beliefs. In each case, by stating ideas in existential terms, these statements imply that these ideas are, in their essence, more than matters of judgment or opinion, and that, from an epistemologically powerful point of view, they could be conclusively proven to be true or false to any observer. Whether or not the means exist in a practical sense to actually determine whether an existential statement is true or false is besides the point.

World view statements that describe entities, events, or behaviors in terms of judgment (e.g., "Those who fight against my nation are evil," or, "Human nature is basically good") are of the second type of belief mentioned by Rokeach, the evaluative. Yet other worldview statements, which describe preferred means or ends (e.g., "People should live in the moment"), represent the third type,

prescriptive or proscriptive beliefs. Only this last type of world view statement comprises what are properly called values.

Are, then, world views simply synonymous with beliefs in general? No. The difference between world view beliefs and other beliefs is determined on the basis of content. While a judgment of content involves an unavoidable degree of arbitrariness, this writer believes that it is possible to reliably differentiate world view statements from other statements of general belief. World view statements involve the nature of reality (what can exist, what is possible to occur), fundamental guidelines for interpersonal relating, or beliefs about the limits of human capacities. Other types of beliefs are not world view statements.

One might say, "The formula for the volume of a sphere is pi times the radius cubed," or, "'Raiders of the Lost Ark' was the best Indiana Jones movie," or, "One should take off from work to celebrate one's birthday." Each of these is a belief; respectively, they represent examples of Rokeach's existential, evaluative, and prescriptive beliefs. (Incidentally, the existential belief in this case is factually incorrect. The volume of a sphere is four-thirds times pi times the radius cubed; Fischbeck & Fischbeck, 1982, p. 8.) However, none of these are world view statements, because they do not deal with world view topics.

The difference is not just a matter of relative importance. The statement, "I believe that terrorists bombed the World Trade Center," deals with a matter of international importance, but not with a world view topic. Scope is not the issue, either. A statement such as, "I think people in a grocery market line ought to let older people go first," is

just as much a world view statement as, "I believe that intelligent life exists on many planets other than Earth." Further examples of world view statements are given in the following section.

How, then, do world views relate to other constructs, such as attitudes and value systems? To return to Rokeach's thought, as described by recent scholars:

> *Value* refers to a single proscriptive or prescriptive belief that transcends specific objects or situations, while *attitude* refers to an organization of several beliefs focused on a specific object or situation. (Braithwaite & Scott, 1991, pp. 663-664, emphases added)

Thus, inasmuch as a world view contains several beliefs focused on a specific object or situation (e.g., the family, authority conflicts, divine beings), it encompasses attitudes. Also in Rokeach's conceptualization, sets of values form "value systems" (Braithwaite & Scott, 1991, p. 662); consequently, a given world view, as it encompasses a set of accepted values, thus also encompasses a value system.

In sum, *a given world view* includes several *world view beliefs*, which are beliefs that apply to certain topics; beliefs on other than these topics are not world view beliefs. A given world view encompasses both a value system and a set of attitudes. However, on the other hand, there are some values and attitudes that are so restricted in the objects or situations to which they pertain that they are not encompassed within a world view structure. They are non-world-view beliefs.

Examples of World View Beliefs

The world view construct refers to many different types of assumptions that people hold. These assumptions have been identified by a variety of theorists and researchers, including Dilthey (1957/1970; Giorgi, 1970), Freud (1933b/1965), Jung (1942/1954a, 1951/1954b), Pepper (1942/1970), Stace (1960), F. R. Kluckhohn (1950, 1951; F. R. Kluckhohn & Strodtbeck, 1961/1973), Royce (1964), Wrightsman (1964, 1974, 1992), Lerner (1980), Maslow (1970a), Coan (1974, 1979), D. W. Sue (1978b; D. W. Sue & D. Sue, 1999), Gilligan (1982), and Janoff-Bulman (1989, 1992), among others. Some of these assumptions refer to fundamental issues of human nature, including assumptions about specific sectors of human life such as will, cognition, individual behavior, and interpersonal behavior. Still other assumptions deal with the nature of the world, life, and reality.

World view assumptions regarding human nature in general include issues of moral orientation and mutability. For example, are human beings basically good, basically evil, or morally neutral? Is human nature changeable, or is it permanent, as far as a given individual is concerned?

World view assumptions dealing with human will address the role of agency versus other factors in determining human behavior. For example, do humans choose any behaviors with true agency (i.e., "free will"), or is all behavior determined? Is behavior determined by biological factors, by environmental factors (i.e., social learning), or by unconscious intrapsychic factors (e.g., the unconscious of psychoanalytic theory)?

Assumptions dealing with cognition address at least two issues: epistemology and consciousness. For example, is intuition a valid source of knowledge? Is tradition? Is personal spiritual revelation? For that matter, is science? In terms of consciousness, are the everyday waking state, reverie, and the dream state the only "healthy" forms of consciousness? Or, does sane experience also include the mystical state?

Many world view assumptions address various aspects of individual behavior. Should our priorities revolve around protecting tradition, experiencing the present moment, or preparing for the future? Should the primary focus of our activities be the production of measurable accomplishments, the development of our internal potentials, or simply expressing our personalities? Is the source of moral guidance to be found among people, or in some transcendent or spiritual realm? Are moral standards absolute or relative? Are we responsible for what comes to us in our lives, or is our status the result of external forces (e.g., society, fate)? Should we depend solely on direct effort to change the world, or can we influence events through rituals such as prayer?

A further collection of world view assumptions addresses the matter of group and interpersonal behavior. Is it best to relate to authority in a linear, hierarchical fashion, or is it best to take a lateral, power-sharing approach? Which agenda should have priority within one's life: the group's, or the individual's? What is the purpose of sexuality (e.g., procreation alone, pleasure, relationship-building, sacred communion)? Is it better to be dependent on others, or independent?

Is it best to act in competition with others, to cooperate with others, or to disengage from others? Is the social-political world inherently fair and just, is it inherently unjust, or does it work at random?

Assumptions regarding the nature of the world, reality, and life cover the broadest ground of any world view assumptions. Is there a sense in which "spirit" is part of the underlying structure of reality, or is the universe best described in purely material terms? Is reality chaotic, or is there some kind of plan behind it all? Do a Supreme Being or Beings exist, and, if so, what kind of being or beings are these? Does the natural world possess consciousness in any meaningful sense? Should people try to subdue nature, should they try to live in harmony with nature, or should they recognize that they live at the mercy of nature? Is life itself fair, or unjust, or random? Is human well-being best obtained through adherence to scientific logic, or through adherence to some kind of transcendent guideline beyond human logic (e.g., "divine law")? Is life worthwhile? What is the meaning of life?

Importance of the Construct Within Psychology

As the reader might well imagine, different sets of world view assumptions on the issues outlined above could lead to vastly differing approaches to life, with important consequences for behavior, which lands the world view construct squarely in the middle of the subject matter of psychology by any definition of the field. Recent years have seen a groundswell of interest regarding the world view construct in many areas of psychology.

The world view construct has played a part in descriptions of multicultural psychology (Barnouw, 1985) and the psychology of religion (Kahoe, 1987; Wulff, 1997), where it has been claimed that different ethnic or religious cultures possess distinctly different sets of assumptions about reality. World views, albeit not identified as such, are at the foundation of the "subjective culture hypothesis," which posits that cultural differences in the perception of the social world have important consequences for social behavior (Triandis, 1994). In applied psychology, some investigators have long recognized the importance of the world view construct in counseling and psychotherapy, in terms of a counselor understanding both the counselor's and the client's world view assumptions (Arbuckle, 1958/1971; A. D. Chapman, 1981; Donceel, 1971/1976; Ibrahim, 1988, 1991; Weinstock & O'Dowd, 1970/1976). More recently, combining the preceding insights, the world view construct has come to occupy an important place in some scholars' descriptions of multicultural counseling and psychotherapy (Fischer, Jome, & Atkinson, 1998; Ibrahim, 1985a, 1985b; A. P. Jackson & Meadows, 1991; Ponterotto, Casas, Suzuki, & Alexander, 1995; D. W. Sue & D. Sue, 1999; Treviño, 1996), psychotherapy with religious individuals (Richards & Bergin, 1997), psychotherapy integration (Messer, 1992), and health psychology (A. P. Jackson & Sears, 1992).

Throughout psychology, the world view construct may be, at least partially, a way to address a problem identified by Betancourt and López (1993). These authors decried the fact that researchers into cultural differences typically failed to identify *specific* facets of culture,

ethnicity, or race that were responsible for observed differences in psychological phenomena. These authors encouraged researchers to identify specific aspects of culture, ethnicity, or race that might underlie observed intergroup differences. Certainly world view is a strong candidate for such a factor.

One of the more intriguing matters in which the world view construct may play an important part involves the question of the unexplained variance in psychotherapy outcome studies. It has long been noted that most of the variance in psychotherapy outcome has been unexplained by the independent variables used in the studies involved (e.g., therapeutic approach, experience of therapist). As two researchers put it:

> Clinical trial data do not tell us .... why treatments work. It may well be that there are mechanisms and processes other than those outlined by the specific brand-name treatment under study that are responsible for whatever changes occur in the patient's symptoms. (Goldfried & Wolfe, 1996, p. 1011)

Some researchers have estimated that "as much as 40% of the variance in psychotherapy outcome can be attributed to the operation of extratherapeutic factors" (S. D. Miller, Duncan, & Hubble, 1997, p. 36, references omitted). It has been suggested that the time has come to look at something that researchers have often disregarded as nuisance variables: individual differences among therapists (Garfield, 1997; Lambert, 1989).

One possible area where individual differences may affect therapy outcome is the matter of world views. That is, it may be the case that some therapist—or client—world views are more conducive to good therapy outcomes than others. Another, perhaps more

sophisticated, view is that certain types of counselor-client world view combinations are more conducive to good therapy outcomes (parallel to a concept that has been posited by some values researchers; Beutler & Bergan, 1991). It has been posited that a world view shared by client and counselor is one of four common factors underlying therapy effectiveness across techniques (Fischer, Jome, & Atkinson, 1998). This is a particularly provocative hypothesis, given that recent reviews of common factors research (e.g., Stiles, Honos-Webb, & Knobloch, 1999) show a dearth of research that addresses world view at all as a common factor in therapy. As more attention is focused on what individual therapists bring to the counseling encounter, it seems likely that the world view construct will be of increased interest to researchers and theoreticians. Certainly any role that world view considerations may have in improving the usefulness or efficacy of psychotherapy is deserving of a great deal of research attention, given that such an improvement is one of the "breakthrough problems" in the field (Mahrer, 1997, p. 84)

Moreover, aside from the importance of world view to general and applied psychology, this construct has proven to be of interest in metapsychological discussions. It has been asserted that all psychological theories and models for intervention contain implicit (and perhaps unrecognized) world views, ontological and epistemological "metatheses" that provide the underpinnings for, and differentiate among, different approaches to psychological theory and inquiry (Hoshmand, 1996).

> All theories have implied understandings about the world that
> are crucial to their formulation and use.... [A]ll theories and

strategies have ideas imbedded within them that have very real and practical consequences. (Slife & Williams, 1995, p. 2)

... all psychologies, like all theologies, contain implicit philosophical anthropologies [i.e., world views] that inevitably address questions of life's meaning and purpose: who we are to be optimally as persons, how it is that we find ourselves as less than this, what's to be done to improve things, and so on. These implicit philosophical commitments, moreover, are often opaque to a mainstream American psychology to the degree it is steeped in a heritage of positivism. (Sorenson, 1997, p. 533)

Differences of worldview have been central, explicitly or implicitly, in theoretical disputes involving many areas of psychology, including personality theory (Kelly, 1955, p. 5; Nye, 1975), developmental psychology (Overton, 1991), environmental psychology (Altman & Chemers, 1980; Altman & Rogoff, 1987), and transpersonal psychology (Hendlin, 1986; "In defense," 1986; May, 1986a, 1986b; Valle, 1986). What Overton has noted regarding developmental psychology holds true for other areas of the discipline as well:

The different concepts of development and their implications do not arise because people observe different things in the world. They arise because people have different sets of basic beliefs or assumptions about the nature of the world. (Overton, 1991, p. 269)

Thus, it can be seen that the world view construct is of interest both in discussions of various substantive areas in psychology and in discussions of metapsychology. This construct is even more widely applicable. In the educational world, it has been claimed that the difficulty involved in raising academic achievement among inner-city youth "has less to do with poverty as such than with culture" (Traub, 2000, p. 57), and, by implication, with world views. On the political stage, unresolved world view differences have been implicated in the

origin of contemporary American social conflicts (Hunter, 1994) and large-scale international military conflicts of the post-Cold War era (Huntington, 1993). Applying the construct on the largest of scales, world view factors have been described as crucial to successfully resolving global crises involving ecological integrity and international peace (Grof & Valier, 1988; Walsh, 1984).

On a more immediate scale, important ethical issues arise regarding world view for the counseling and psychotherapy professional. It has been asserted that "[A]pplied behavioral scientists—those in therapy, education, and business—have a special responsibility to know the ideas imbedded in [their theories of intervention]" (Slife & Williams, 1995, p. 7, emphasis omitted). The current set of ethical principles for psychologists as promulgated by the American Psychological Association (APA) states that "Psychologists strive to be aware of their own belief systems [and] values ... and the effect of these on their work" (General Principle B; American Psychological Association, 1992, p. 1599), which involves the potential responsibility to assess and understand one's own world view. Other sections of the APA ethics imply a need to become aware of client world views. (See: General Principle D; Ethical Standards, Section 1.08: Human Differences; Section 1.09: Respecting Others; all in American Psychological Association, 1992. See also critique of these guidelines in Pedersen, 1995.)

The APA Office of Ethnic Minority Affairs has published guidelines that call for psychologists to attend to the impact of ethnicity and culture (and, by implication, world views) on clients' behavior and

psychological processes (Guidelines 2a and 3, American Psychological Association, 1993, p. 46). These same guidelines call for psychologists to "help clients increase their awareness of their own cultural values and norms," and those of their communities (Guidelines 3c and 3e, American Psychological Association, 1993, p. 46), and exhort psychologists to be "aware of how their own cultural background ... attitudes, values, and biases influence psychological processes" (Guideline 3a, American Psychological Association, 1993, p. 46). All of these guidelines imply that a great deal of focused attention and respect should be paid by psychological practitioners to their own and their clients' world views. Indeed, to the best of the present author's knowledge, the only mention of "world view" that has been made in an official APA document occurs in this set of guidelines:

> Psychologists respect clients' religious and/or spiritual beliefs and values, including attributions and taboos, since they affect world view, psychosocial functioning, and expressions of distress. (Guideline 5, American Psychological Association, 1993, p. 46)

Such a perspective is by no means confined to psychologists. A committee of the American Counseling Association has recommended standards that specifically call for counselors to take steps toward "understanding the worldview of the culturally different client" (Sue, Arredondo, & McDavis, 1992/1995, p. 634; see also Arredondo et al., 1996).

In sum, the study, assessment, and understanding of the world view construct are important for psychology. This construct has a great deal of relevance to theory, practice, and ethical conduct in psychotherapy and counseling.

Challenges in World View Assessment

As a tenet of traditional psychological research, it is generally held that for "a concept [to be] acceptable to psychology ... it must be defined operationally" (Kimble, 1989/1998, p. 29). One challenge within the area of world view studies is the paucity of comprehensive assessment instruments. There are psychometrically sound instruments for some aspects of the world view construct (see Chapter II and Appendix A). However, most aspects of the construct have not been addressed by psychometricians, or are assessed by instruments that are questionable on theoretical or psychometric grounds. The lack of assessment instruments makes it difficult to approach certain important questions in the field (Beutler & Bergan, 1991). Some counseling professionals, in particular, have called for the development of instruments to assess world view (A. P. Jackson & Meadows, 1991). This study was devised to address this challenge.

As can be seen from the description given above, the world view construct is highly multidimensional. A comprehensive world view assessment instrument would comprise numerous scales, the development of all of which would be beyond the scope of a single doctoral dissertation. It was necessary for reasons of practicality to limit the scope of the development effort for the present research. It was decided to focus the present research on the development of a few scales that would assess types of assumptions and beliefs that might be especially relevant to counseling and psychotherapy. A comprehensive review of the literature (summarized in Chapter II)

revealed six aspects of world view that are particularly relevant to psychotherapy and counseling, and for which no adequate assessment instruments were available. These dimensions include beliefs about the human capacity to change, human agency, personal responsibility, relating to authority, relating to one's reference group, and beliefs about the metaphysical background of reality and one's life. The present research focused on developing scales to assess assumptions in these areas.

It could be argued that the present study is essentially misguided. Certainly there are those who might say that the way to understand a culture, and the people within it, is to work from the inside out, to discover their world views in their own terms. This may be termed an *emic* approach (Veroff & Goldberger, 1995), an approach that has been used with success in some approaches to multicultural counseling (e.g., McGoldrick, Giordano, & Pearce, 1996). On the other hand, the present study, which had the objective of developing an instrument that could be used in a uniform fashion with people from several cultures, is clearly a project meant to further the agenda of *etic* approaches to culture and psychology, approaches that attempt to study behavior from outside the stance of a particular culture (Veroff & Goldberger, 1995, p. 15).

Without questioning the value of emic approaches, this researcher believes that there is value to the etic approaches that the present study is meant to further. There is a point, and a value, to being able to look at people of various cultures in terms of common categories. There is, of course, the risk that these common categories

(here, specific world view dimensions) are so imbedded in the researcher's own culture that they are meaningless in another. This is a risk, however, that it is worth taking, albeit cautiously. The alternative would be to abandon etic approaches altogether, a position that, taken to its logical extreme, would require us to abandon trying to understand people in common terms at all.

Objective of the Present Research

The research objective of this study was to develop measures to assess selected aspects of world view—aspects that are relevant to research in psychotherapy and counseling, but that are conceptualized in relation to a more comprehensive consideration of the dimensions of world view as these emerged from the theoretical and research literature.

More specifically, it was the objective of the present research to develop six scales, each scale to assess one dimension of the world view construct. The six dimensions of the world view construct selected for assessment were: 1) beliefs about the *mutability* of human nature, 2) beliefs about human *agency*, 3) beliefs about the *locus of responsibility* for one's status in life, 4) beliefs about one's proper *relation to authority* figures, 5) beliefs about one's proper *relation to group* of reference, and 6) beliefs about *metaphysics*, in particular, the materialist versus spiritualist nature of reality. (In order to assess the degree to which these dimensions overlap or are independent of another dimension of world view that has been well-studied in the literature, a previously-

developed scale assessing *locus of control* was adapted for use in this research.)

A comprehensive review of the world view literature (Chapter II; Appendix A) revealed that these six aspects of the world view construct had been judged by experts in the field to be especially relevant to practice and research in counseling and psychotherapy, but had not yet been adequately addressed in terms of assessment. Consequently, the research objective of this study was focused on the development of these six scales, with the intent that they would meet conventional standards for reliability, and demonstrate adequate preliminary indications of validity.

Definitions of Key Terms

The key terms defined below include *world view, agency, mutability, locus of control, locus of responsibility, relation to group, relation to authority,* and *metaphysics.*

World View

As a formal definition, a *world view* is a set of interrelated beliefs about the nature of reality and human life, including beliefs about motivations, social behavior, and human capacities; within these topic areas, any given world view encompasses beliefs concerning what exists or is possible to occur in the universe, what experiences and entities are good or bad, and what behaviors and end states should be sought or eschewed. (This definition includes aspects of statements quoted earlier from Overton, Rokeach, and Wolman.)

Thus, a world view is a set of assumptions involving what philosophy technically terms the realms of metaphysics (including ontology and epistemology), axiology (the study of values), conation (will), ethics, consciousness, and meaning. Those holding specific world view assumptions may not be aware of these assumptions, and may not be able to articulate them.

For this study, a few aspects of the world view construct were operationalized as scores on the *Worldview Assessment Instrument* (WAI), a six-scale instrument developed during the present research. These aspects involved beliefs about 1) mutability, the possibility of changing human nature, 2) agency, the degree to which behavior is chosen or determined, 3) a person's proper relationship to authority, 4) relation to group, that is, the priority that should be placed on one's own agenda in life versus that of one's reference group, 5) locus of responsibility, that is, responsibility for the position one occupies in life, and 6) metaphysics, which here indicates beliefs concerning the reality or unreality of a spiritual dimension to life. In addition, a further dimension of the world view construct, locus of control, was operationalized as a score on a scale adapted from Rotter's (1966) I-E Scale. Each of these aspects of world view is defined and operationalized below.

Agency

Agency refers to beliefs concerning whether or not people exercise true choice in forming their behavior. These beliefs fall into either of two ends of a polarity, voluntarist—determinist. The voluntarist end of the polarity represents beliefs that individuals possess what is termed in philosophy "free will" or "moral agency," in terms of exercising true choice for at least some of their behaviors; thus, some behaviors cannot be accounted for by factors of genetics, social learning, or unconscious intrapsychic factors such as those hypothesized in psychoanalytic theory. The determinist end of the polarity represents beliefs that all human behavior is determined; these determining factors may be genetic, intrapsychic (in the psychodynamic sense), or social (including social learning).

In this study, agency was operationally defined as a score on the Agency Scale of the WAI. High scores on this scale (i.e., scores above a hypothetical midpoint) reflect the voluntarist end of the polarity. Low scores (i.e., scores below a hypothetical midpoint) reflect the determinist end of the polarity.

Mutability

Mutability refers to beliefs concerning whether or not an adult's character, behavioral tendencies, or personality may be changed. These beliefs fall into either of two ends of a polarity, changeable—permanent. The changeable end of the polarity represents beliefs that an adult's character, behavioral tendencies (e.g., habits), or personality characteristics may exhibit change over time, due to the effect of factors

external to the individual (such as social learning). The permanent end of the polarity represents beliefs that an adult's character, behavioral tendencies, and personality are not susceptible to any but the most superficial and temporary change due to external factors.

In this study, mutability was operationally defined as a score on the Mutability Scale of the WAI. High scores on this scale (i.e., scores above a hypothetical midpoint) reflect the changeable end of the polarity. Low scores (i.e., scores below a hypothetical midpoint) reflect the permanent end of the polarity.

Locus of Control

Locus of control refers to beliefs concerning the causes of certain events, experienced by the person as reward or punishment. These beliefs fall into either of two ends of a polarity, external—internal. As originally formulated by Rotter, the external end of the polarity represents beliefs that rewards and punishments (for Rotter, "reinforcements") are "the result of luck, chance, fate, ... [are] under the control of powerful others, or ... [are] unpredictable" (Rotter, 1966, p. 1); as reconceptualized for this study, the external end of the polarity focuses on the belief that reinforcements are the result of luck. The internal end of the polarity represents beliefs that rewards and punishments are contingent upon the person's "own behavior or [one's] own relatively permanent characteristics" (Rotter, 1966, p. 1).

In this study, locus of control was operationally defined as a score on a form of Rotter's (1966) I-E Scale, using selected items adapted to be consistent with the format of items on the WAI. In this

adaptation, high scores (i.e., scores above a hypothetical midpoint) reflect the external end of the polarity, particularly emphasizing the role that luck plays in bringing about rewards and punishments. Low scores (i.e., scores below a hypothetical midpoint) reflect the internal end of the polarity.

Locus of Responsibility

Locus of responsibility refers to beliefs about perceived blame or responsibility for the person's situation and status in life. These beliefs fall into either of two ends of a polarity, external—internal. The external end of the polarity represents beliefs that view "the sociocultural environment as more potent than the individual" (D. W. Sue & D. Sue, 1999, p. 171) and that "success or failure [in society] is generally dependent on the socioeconomic system and not necessarily on personal attributes" (D. W. Sue & D. Sue, 1999, p. 172). The internal end of the polarity represents beliefs that "success or failure [in life] is attributable to the individual's skills or personal inadequacies, and ... that there is a strong relationship between ability, effort, and success in society" (D. W. Sue & D. Sue, 1999, p. 171).

In this study, locus of responsibility was operationally defined as a score on the Locus of Responsibility Scale of the WAI. High scores on this scale (i.e., scores above a hypothetical midpoint) reflect the external end of the polarity. Low scores (i.e., scores below a hypothetical midpoint) reflect the internal end of the polarity.

Relation to Authority

Relation to authority refers to beliefs about what is considered the natural, "right," or appropriate way for people to relate to authority figures. These beliefs fall into either of two ends of a polarity, linear—lateral. The linear end of the polarity represents beliefs that the best way to relate to authority figures is in the context of a clearly defined hierarchy, where those who hold superior statuses in the hierarchy make decisions for and issue instructions to those who hold subordinate statuses in the hierarchy. The lateral end of the polarity represents beliefs that the best way to relate to authority figures is in the context of an egalitarian partnership, where authority is widely distributed throughout an organization, and decisions are made in a consensus fashion.

In this study, relation to authority was operationally defined as a score on the Relation to Authority Scale of the WAI. High scores on this scale (i.e., scores above a hypothetical midpoint) reflect the linear end of the polarity. Low scores (i.e., scores below a hypothetical midpoint) reflect the lateral end of the polarity.

Relation to Group

Relation to group refers to beliefs concerning whether priority is given to the goals of an individual or to the goals of that individual's reference group (e.g., family, clan, school class, sports team, company). These beliefs fall into either of two ends of a polarity, collectivist—individualist. The collectivist end of the polarity represents beliefs that the reference group's agenda and goals have

priority over the individual's. The individualist end of the polarity represents beliefs that the individual's agenda and goals have priority over the reference group's.

In this study, relation to group was operationally defined as a score on the Relation to Group Scale of the WAI. High scores on this scale (i.e., scores above a hypothetical midpoint) reflect the collectivist end of the polarity. Low scores (i.e., scores below a hypothetical midpoint) reflect the individualist end of the polarity.

Metaphysics

Metaphysics refers to beliefs about the fundamental nature of reality. These beliefs fall into either of two ends of a polarity, spiritualist—materialist. The spiritualist end of the polarity represents beliefs that "spirit is a prime element of reality" (*Webster's Ninth New Collegiate Dictionary*, 1991, p. 1137, s.v. "spiritualism"). The materialist end of the polarity represents beliefs that "physical matter is the only or fundamental reality and that all being and processes and phenomena can be explained as manifestations or results of matter" (*Webster's Ninth New Collegiate Dictionary*, 1991, p. 733, s.v. "materialism"). As used in this study (and as discussed in detail in Chapter II), "spiritualism" is not the same as "spirituality" as used in everyday discourse, and ontological "materialism" as used in this study is not the same as lifestyle "materialism."

In this study, metaphysics was operationally defined as a score on the Metaphysics Scale of the WAI. High scores on this scale (i.e., scores above a hypothetical midpoint) reflect the spiritualist end of the

polarity. Low scores (i.e., scores below a hypothetical midpoint) reflect the materialist end of the polarity.

Chapter Summary

In this chapter, the world view construct was described. Reasons were offered for the study of this construct within the discipline of psychology. A brief description of the assessment challenges in this area was given. A formal statement of research objectives was made. Conceptual and operational definitions were given, for world view and those aspects of it that were addressed in this study.

CHAPTER II

REVIEW OF RELATED LITERATURE

This chapter has four parts. The first part summarizes a few major attempts to conceptualize the world view construct, specifically in terms of the thought of Freud, F. R. Kluckhohn, and D. W. Sue. (The reader is referred to Appendix A for a consideration of the contributions made by several other thinkers, including Pepper, Kelly, Maslow, and others.)

The second part of the chapter focuses on dimensions of the world view construct that have been recommended as particularly relevant for counseling and psychotherapy, in the work of Bergin, D. W. Sue, Treviño, and Triandis. This part concludes with the selection of specific world view dimensions as the focus for the psychometric development effort in the present study.

The third part of the chapter describes each of the dimensions of world view selected for attention in the present study. These dimensions are described as they are considered in the world view literature and, selectively, in the general psychological literature.

The fourth part of the chapter describes previous assessment efforts made with respect to these world view dimensions. A summary concludes the chapter.

Previous Conceptualizations of World View

Curiously, the world view construct heretofore has never been represented by a truly comprehensive model. This is not because efforts at model-building have been lacking; indeed, there seem to be more major models describing the world view construct than there are models describing such well-known psychological constructs as career satisfaction or schizophrenia. Rather, the various thinkers involved with world view appear to have little if any awareness of each other's work. This may be due, at least in part, to the fact that world view studies have been conducted within a variety of academic disciplines, including philosophy, anthropology, and psychology. (And yet, the solution to this theoretical fragmentation will not be found in attempting to confine study of the construct to one discipline, but rather through a deliberate multidisciplinarity. World view is likely to be one of those constructs that must be studied in a multidisciplinary way in order to be grasped; S. J. Kline, 1995, p. 273.)

Another factor impeding the emergence of a comprehensive model is the relative recency with which world view has been identified as a topic of study in its own right within psychology. Although the concept is as old as scientific psychology, the term "world view" is one of the more recent additions to the *Thesaurus of Psychological Index Terms* (appearing first in American Psychological Association, 1988).

Consequently, the field exhibits not one or a few overarching models of world view, but rather a large number of models that each describe one or a few small regions within the domain. It is as if, in the

study of depression, we were without either the biological,

psychodynamic, or cognitive models, but rather had one model that

focused on mood, another that built the construct around symptoms of

insomnia, another that emphasized weight change, and so forth.

Despite this theoretical confusion, it is possible to discern a few

major themes in the work of theorists and researchers who have

considered the world view construct. This work is summarized below

in terms of the contributions of a few major figures whose work has

proven particularly fruitful in the study of world view: Freud, F. R.

Kluckhohn, and D. W. Sue. These theorists are emphasized because

their thought has been most fruitful for others in the field, and each of

them has contributed two or more dimensions to the world view

construct.

Omitted from detailed consideration in this chapter are theorists

who did not discuss specific world view dimensions (Jung, 1942/1954a;

Kelly, 1955), or who focused on only a single dimension of world view,

such as beliefs regarding causation (Pepper, 1942/1970), consciousness

(Stace, 1960), epistemology (Royce, 1964), a just world (Lerner, 1980),

meaning of life (Maslow, 1970a), or moral reasoning (Gilligan, 1982). In

addition, this chapter omits from detailed consideration models whose

dimensions, derived from factor analysis (Coan, 1974, 1979;

Wrightsman, 1964, 1974, 1992), essentially confirm other, more theory-

driven models. The chapter omits detailed consideration of models

that essentially reconfigure and recombine the dimensions of other

models (e.g., M. T. Brown & J. Landrum-Brown, 1995; A. P. Jackson &

Meadows, 1991). Finally, we omit from detailed consideration theorists

and researchers who consider world view in categorical rather than dimensional terms (e.g., Holm & Björkqvist, 1996; Messer, 1992; M. E. Miller & West, 1993; Wilber, 1989d/1999c, 1999b). A more detailed review of the world view literature is given in Appendix A. This review is recast into a streamlined, collated approach to the world view construct in Appendix B.

Freud and Weltanschauungen (1933)

For Sigmund Freud, "a *Weltanschauung* is an intellectual construction which solves all the problems of our existence uniformly on the basis of one overriding hypothesis, which, accordingly, leaves no question unanswered and in which everything that interests us finds its fixed place" (Freud, 1933b/1965, p. 139). Freud saw world views as concepts that individuals hold consciously, "Handbooks to Life" (Freud 1926/1959, p. 22) designed to tie the world up into neat and explainable packages. As such, he derided world views as being essentially philosophical crutches. However, as much as Freud derided world views, he also outlined several important aspects or dimensions of the world view construct, some in detail, some only in passing. These dimensions concern epistemology, metaphysics, and agency.

For Freud, epistemology, specifically the method of establishing valid knowledge, was the most critical dimension that distinguished between different world views. For example, concerning the world view of science, Freud said that "[Science] asserts that there are no sources of knowledge other than the intellectual working-over of carefully scrutinized observations—in other words what we call

research—and alongside of it no knowledge derived from revelation, intuition or divination" (Freud, 1933b/1965, pp. 139-140). A similar emphasis on epistemology is found in the work of Royce (1964) in philosophical psychology, the work of Kahoe (1987) in the psychology of religion, and in the spirited debate regarding psychotherapy held among Bergin (1980a, 1980b), Ellis (1980), and Walls (1980). Epistemology holds a central part in the Afrocentric world view described by Montgomery, Fine, and James-Myers (1990). Indeed, it has been asserted that implicit epistemological assumptions are an issue, not only with individuals, but in many, if not all, psychological theories (Slife & Williams, 1995). This should not be surprising, given the status of epistemology as one of the fundamental issues in philosophy (Ewing, 1962).

Implicit but crucial in Freud's distinction (1933b/1965) between religious and scientific world views is metaphysics, particularly the difference between spiritualist and materialist approaches to metaphysics. That is, the distinction between what Freud called the religious and scientific world views hinges, to some extent, on whether one believes that reality has a spiritual aspect, or that reality is best described by a thoroughgoing materialism. The importance of the metaphysics dimension in distinguishing between world views is underscored by the philosophical work of Stace (1960) regarding mysticism and mystical experiences. Stace's model appears to be mirrored in Maslow's (1968, 1970b) work regarding peak experiences, and forms the basis of some of Hood's (e.g., 1975) research in the psychology of religion. Differences in metaphysics result in different

approaches to life, and imply different paths in counseling and therapy (Bergin, 1980a, 1980b; Ellis, 1980; Richards & Bergin, 1997; Walls, 1980).

Also implicit in Freud's metapsychology is the notion of determinism versus agency. For Freud, all behavior and mental events are determined by biological (including intrapsychic) and social forces; "according to Freud there are no psychical events which result from pure chance or from 'free will' " (Figueira, 1990, p. 73). A different position in relation to this matter is voluntarism, that is, the notion that humans exert free will or moral agency in choosing at least some of their behaviors.

World view positions regarding agency are implicit in many, if not all, psychological theories (Slife & Williams, 1995)—again unsurprising, given the importance of this issue within philosophy (Ewing, 1962). Questions regarding agency have been debated in psychology for a long time, and from many perspectives (Bakan, 1996; Bargh & Chartrand, 1999; Howard, 1993, 1994a; Mahoney, 1993; Rychlak, 1979; Tinsley, 1993; Valentine, 1992; Wegner & Wheatley, 1999). Even among generally voluntarist positions, different approaches are possible, for example, concerning whether agency is considered absolute or not, or whether it is placed in a private ego or in a social context (Richardson, 1994; R. N. Williams, 1994). Indeed, it has been claimed that, even in principle, it is impossible to prove any given idea about free will as true or false on logical grounds, because different and irreconcilable but unprovable assumptions about the nature of philosophy are at the foundation of different ideas about free will (Double, 1996). Coan (1974, 1979) found that stances regarding agency

defined basic world view differences among both psychologists and non-psychologists. This is a matter of no small importance in psychology; differences in notions of agency imply different paths, both in life and in therapy (Richards & Bergin, 1997). Agency is also a matter of no small importance in everyday life, as witnessed by the number of recent films for the general public that have focused on questions of free will versus determinism (e.g., Niccol & Weir, 1998; Proyas, Dobbs, & Goyer, 1998; Wenders, Handke, & Stevens, 1998).

It should be noted that Freud did not see the description of world views as a part of his mission as a theory-builder. Consequently, his contributions to world view modeling were incidental to the pursuit of his main interests. His treatment of world views can be faulted on several grounds, among them his notion that psychoanalysis possesses no distinctive world view beyond that of science itself (Freud, 1933b/1965, p. 160), an assertion that, as Figueira (1990) has noted, carries the tinge of a neurotic negation. Despite these flaws, however, Freud's identification, in passing, of several crucial world view dimensions is a solid contribution to the field.

Nonetheless, it must be noted that the importance of Freud's contributions in this area have not been translated uniformly into psychometric development or research interests. Some attention has been paid to the development of an instrument to assess world view beliefs about epistemology (Royce & Mos, 1980). However, as discussed below, satisfactory instruments are lacking for the assessment of world view beliefs about metaphysics or agency.

Kluckhohn and Value Orientations (1950)

The complex model of world view described by Kluckhohn will be addressed here in four ways. First, the model itself will be outlined. Second, instruments that have been developed to implement this model will be briefly described. Third, research using this model in regards to counseling and psychotherapy will be described briefly. Fourth, a logical problem posed by one of the dimensions of this model will be discussed, inasmuch as it bears on the present study.

Dimensions of the Kluckhohn Model

Florence Rockwood Kluckhohn (1950; Kluckhohn & Strodtbeck, 1961/1973) provided an intricate model of the world view construct that has had much influence on contemporary thought and research in this area. In Kluckhohn's scheme, a culture's (or an individual's) world view is defined by answers to questions in six basic areas or "orientations" of human experience:

Human Nature Orientation. What is the character of innate human nature? Kluckhohn posited this range of responses: that human nature is good, or evil, a mixture of both, or morally neutral.

Mutability Orientation. Can human nature be changed, or not? In other words, is human nature mutable, or immutable? Kluckhohn considered this a variation upon the human nature orientation, a sort of sub-dimension that she did not name separately; "mutability orientation" is a designation by the present author.

Man-Nature [sic] *Orientation* (hereafter *Relation to Nature*). What is the relation of humanity to nature? That is, do people live in subjugation to nature, in harmony with it, or in mastery over it?

Time Orientation. What is the temporal focus of human life? That is, in making decisions about behavior, is it most important to focus on considerations regarding the past (as in upholding tradition), the present (as in living-in-the-moment), or the future (as in planning for one's future welfare)?

Activity Orientation. What is the modality of human activity? That is, is it most appropriate to be involved in "being" activities that spontaneously express personality, "being-in-becoming" activities that have as their goal the development of an integrated self, or "doing" activities that focus on measurable achievement or reward?

Relational Orientation. What is the modality of interpersonal relationship? That is, is it better to be involved in hierarchical forms of relationship, "collateral" forms that emphasize collegiality and consensus, or to be individualistic?

Kluckhohn's model has been widely used, particularly in discussions involving multicultural counseling, psychotherapy, and social work (Ibrahim, 1985a, 1985b; F. R. Kluckhohn, 1951; D. W. Sue & D. Sue, 1999; Treviño, 1996), multicultural family therapy (Kluckhohn, 1958; Papajohn & Spiegel, 1975), multicultural assessment (Dana, 1993), and multicultural educational practice (Kluckhohn, 1967b). It has also been recommended in discussions of general or "generic" counseling and therapy (Beutler & Bergan, 1991; Chapman, 1981; Green, 1979; Ibrahim, 1988, 1991).

An extensive review of multicultural empirical investigations following this model (primarily descriptive studies or clinical impressions) has been presented by Carter (1991). Many such studies have been conducted since Carter's review (e.g., Berkow, Richmond, & Page, 1994; Cheng, O'Leary, & Page, 1995; Hickson, Christie, & Shmukler, 1991; Ihle, Sodowsky, & Kwan, 1994; Kwan, Sodowsky, & Ihle, 1994; Lo, Osaka, & Laird, 1994; Mahalik, Worthington, & Crump, 1999; Sodowsky, Maguire, Johnson, Ngumba, & Kohles, 1994).

Instrumentation for the Kluckhohn model

In their original investigation, Kluckhohn and her colleagues (Kluckhohn & Strodtbeck, 1961/1973) used the Value-Orientation Schedule, which presents the respondent with 22 vignettes. Following the vignettes, two or three alternatives are listed, pertaining to different explanations for the vignette or different courses of action which could be followed subsequent to the event depicted in the vignette. The pattern of participant selections among these alternatives was then used to indicate the value orientations of the respondent. This instrument has been used in what is essentially descriptive research, to study value orientations of Native Americans, Spanish-Americans, and Latter-day Saints in the American southwest (Kluckhohn & Strodtbeck, 1961/1973), as well as value orientations of Greek-Americans (Papajohn & Spiegel, 1971).

No reliability or validity data were published for the original instrument. It is important to note that this instrument is not itself a complete implementation of the Kluckhohn model. The instrument

lacks items concerning the Human Nature Orientation or the Mutability aspect of world views, and has no items to represent the Being-in-Becoming option of the Activity Orientation.

Since the time of Kluckhohn's original investigations, a number of researchers in counseling and psychotherapy have developed other instruments based on Kluckhohn's model. These include the Value Orientation Scale (n.d.; see also Szapocznik, Scopetta, Aranalde, & Kurtines, 1978), the Intercultural Values Inventory (Carter & Helms, 1987; Carter & Parks, 1992), and the Value Orientations Questionnaire (Green, 1979; Green & Haymes, 1973). These instruments, as well, have been used for what is essentially descriptive research involving the study of ethnic group value orientations, typically involving only a very small number of studies with each instrument. (The Value Orientations Questionnaire is an exception only in the populations studied: urban college students and rural high school students, with ethnicity unspecified in each case; Green & Haymes, 1973; Green, 1979).

Currently, the most widely used (although yet unpublished) instrument would appear to be the Scale to Assess World Views (SAWV), prepared by Ibrahim and Kahn (1984, described in Ibrahim & Kahn, 1987, and Ibrahim & Owen, 1994). A variety of studies have been conducted using this instrument. Some of these investigators have studied world view in essentially a monocultural setting. For example, researchers have used the SAWV to study world views in relation to women (Furn, 1987; Mau & Pope-Davis, 1993), cross-cultural training and quality of nurses' care (Cunningham-Warburton, 1988), and

learning style, locus of control, and academic success (Chu-Richardson, 1989).

Other investigators have used the SAWV to study cross-cultural differences in world views of, for example, Taiwanese, Irish, and American counseling students (Cheng, O'Leary, & Page, 1995), Asian, African, Pacific, and White American students (Berkow, Richmond, & Page, 1994; Kwan, Sodowsky, & Ihle, 1994; Sodowsky, Maguire, Johnson, Ngumba, & Kohles, 1994), and Black and White adolescents in South Africa (Hickson, Christie, & Shmukler, 1991).

Despite the number of instruments available, and the growing number of investigations that use them (especially the SAWV), none of these instruments represents a full implementation of Kluckhohn's model. In particular, the Mutability Orientation of Kluckhohn's model appears never to have been addressed in any of the aforementioned assessment instruments, even by Kluckhohn's research team itself. This is so, despite the relevance of the Mutability Orientation to counseling and psychotherapy, a topic discussed in more detail later in this chapter.

The Kluckhohn Model and Research in Counseling and Psychotherapy

Much of the research relevant to counseling and psychology that has been conducted within the Kluckhohn model has been essentially descriptive in nature. That is, the research has focused on the differences between the majority culture and various ethnic minority cultures in terms of world view. (See review in Carter, 1991, and subsequent research mentioned earlier in this chapter.) The basic

findings of this research are that: a) there are significant and replicable differences between ethnic groups in terms of the dimensions of the Kluckhohn model of world view, and, b) there are significant intragroup variations as well, associated with such factors as acculturation, SES/class, education, generation, gender, and group identification (e.g., racial identity). The major clinical implications usually drawn from these findings involve the importance of therapists being aware of: a) their own world view beliefs, b) their clients' world view beliefs (which may be quite different from the modal beliefs held in the client's culture), c) the differences between therapist and client world view, and d) how these differences might hypothetically affect counseling process and outcome.

Of all the research conducted with instruments developed within the Kluckhohn model of world view, aside from studies that are essentially descriptive, three studies in particular have bearing on counseling and psychotherapy research. Two of these studies focused on counselor—client differences, while a third focused on the relationship between value orientation and theoretical orientation among counselors.

Using the Scale to Assess World Views, Mau and Pope-Davis (1993) found that, compared to graduate counseling students, general undergraduates (i.e., stand-ins for the potential client population) at a Midwestern university were more likely to hold a Past position on Time Orientation, an Evil position on the Human Nature Orientation (i.e., the belief that people are innately corrupt), Linear or Collateral positions on the Relational Orientation, and a Subjugation to Nature

position on the Relation to Nature Orientation. On the other hand, these investigators found, graduate counseling students were more likely to hold a Good position on the Human Nature Orientation (i.e., the belief that people are innately good). Based on these findings, the authors stated that, for a variety of reasons, counselors and clients may differ in world views in ways that have important practical consequences in a counseling relationship. This, in turn, led the authors to suggest that therapists would do well to take client—therapist world view differences into sensitive consideration.

Another study addressed this issue of therapist similarity, in terms of the relationship of therapist world view to therapist theoretical orientation (Mahalik, 1995). Using the Intercultural Values Inventory, the researcher found that although theoretical orientation did not predict world view, therapists as a whole tended to endorse similar world view positions: Individualist human relations, a Being position on the Activity Orientation, and a Harmony with Nature position. The author interpreted these findings to raise the possibility that there is a "therapist culture" with its own distinctive world view.

Finally, a recent study has investigated this issue from another direction, extending the idea of "therapist culture" across ethnic boundaries (Mahalik, Worthington, & Crump, 1999). Using the Scale to Assess World Views with a sample of therapists representing various ethnic groups, the authors found that therapists' world views tended to resemble one another more than they resembled the modal world view of the therapists' respective ethnic groups. The modal "therapist culture" for therapists, regardless of ethnic group, is one in

which human nature is seen as good, social relationships are seen as best when collateral, people are believed to be better off trying to live in harmony with nature, and the preferred mode of activity is focused on being-in-becoming (e.g., self-improvement). African American, Latino/a, and Asian American therapists tended towards a Future position on Time Orientation, while White therapists tended towards a Present position. The authors interpreted their findings to suggest that ethnic minority therapists do not necessarily hold the modal world views of their own ethnic groups, creating still more opportunity for client—therapist world view clash.

In sum, research involving the Kluckhohn model of world view is still at an elementary stage of sophistication. The focus has been on descriptive studies contrasting the majority with various minority ethnic groups, with only a few studies focusing specifically on counseling and psychotherapy concerns.

The Problem of the Relational Dimension: One Dimension, or Two?

One may criticize the Kluckhohn model for collapsing two dimensions into one in a way that obscures certain basic issues. In the Kluckhohn model, the Relational Orientation involves "the definition of man's relation to other men" (sic; Kluckhohn & Strodtbeck, 1961/1973, p. 17). The Relational Orientation allows for three options: Individualism, Collaterality, and Lineality. These three options were described as follows:

> When the Individualistic principle is dominant, individual
> goals have primacy over the goals of specific ... groups.... A
> dominant Collateral orientation calls for a primacy of the goals

and welfare of the laterally extended group.... If the Lineal principle is dominant, group goals again have primacy, but there is the additional factor that one of the most important of these group goals is continuity through time. *Continuity* of the group through time and *ordered positional succession* within the group are both crucial issues when Lineality dominates the *relational* system. (Kluckhohn & Strodtbeck, 1961/1973, pp. 18-19, emphases original)

A careful analysis of this description indicates that there are actually two separate matters that are at issue in the Relational Orientation. One is the matter of relating to group in terms of goal priority, that is, the question of whether it is the group's goals that have priority, or the individual's goals, when there is some conflict between the two. (Another way of putting this is to think in terms of the individual's primary allegiance: is it to the group, or to the individual?)

The other matter at issue in the Relational Orientation involves relating to authority. In the Collateral style, the emphasis is on what Kluckhohn termed *"laterally* extended relationships" (Kluckhohn & Strodtbeck, 1961/1973, p. 18, emphasis added), that is, relationships where one is perceived as being on the same level as the others, and authority is shared. As Kluckhohn put it, "biologically, sibling relationships are the prototype of the Collateral relationship" (Kluckhohn & Strodtbeck, 1961/1973, p. 18). On the other hand, the Linear option, as noted above, emphasizes ordered position within a hierarchy of authority, of which the English aristocracy (with its careful rules for succession to the throne) is considered an example (Kluckhohn & Strodtbeck, 1961/1973, p. 19).

It is possible to see each of these dimensions as varying separately. That is, it is possible to conceive of different individuals and cultures centering themselves at each of the four possible combinations of relation to authority and relation to group, as illustrated by examples given by Triandis and Gelfand (1998): lateral authority and individualist relation to group (e.g., democratic socialism or social democracy, as found in Australia, Norway, or Sweden), linear authority and individualist relation to group (e.g., market economies, such as in France and the United States), lateral authority and collectivist relation to group (e.g., the Israeli kibbutz), and linear authority and collectivist relation to group (e.g., fascism, Chinese communism). Thus, the combining of these two concerns into one, as is done in Kluckhohn's model, is not justified on a logical level.

For our purposes, this distinction gives rise to two world view dimensions in place of Kluckhohn's Relational Orientation. The matter of agenda is considered herein under the dimension of relation to group; it expresses the individualism—collectivism distinction used in much multicultural psychology theory and research (Kagitçibasi, 1997; Schwartz, 1992; Schwartz & Bilsky, 1987, 1990; Triandis, 1985, 1994, 1995a, 1995b). The matter of linear versus lateral authority structure is considered herein under the dimension of relation to authority; it expresses the horizontal—vertical distinction that has also recently been the focus of attention in multicultural work (Triandis, 1996; Triandis & Gelfand, 1998).

Sue and the Fourfold Model (1978)

Derald Wing Sue (D. W. Sue, 1978a, 1978b; D. W. Sue & D. Sue, 1999) articulated a model of the world view construct built upon two dimensions: locus of control and locus of responsibility.

Locus of control is defined by Sue as it was for Rotter, the originator of the concept:

> When a reinforcement is perceived by the subject as following some action of his own but not being entirely contingent upon his action, then, in our culture, it is typically perceived as the result of luck, chance, fate, as under the control of powerful others, or as unpredictable because of the great complexity of the forces surrounding him. When the event is interpreted in this way by an individual, we have labeled this a belief in *external control*. If the person perceives that the event is contingent upon his own behavior or his own relatively permanent characteristics, we have termed this a belief in *internal control*. (Rotter, 1966, p. 1)

While locus of control refers to the perceived control of contingencies or reinforcements (pitting the individual against, especially, the role of luck), locus of responsibility refers to perceived blame or responsibility (pitting the individual against societal forces). "In essence, this dimension [i.e., locus of responsibility] measures the degree of responsibility or blame placed on the individual or system" (D. W. Sue, 1978a, p. 420).

> High internal-locus-of-responsibility (IR) people believe that success and failure may be attributed to a person's skills or personal inadequacies. High external-locus-of-responsibility (ER) people believe that the sociocultural environment is much more potent than the individual. What happens to a person is more a function of the environmental conditions than personal attributes. (D. W. Sue, 1978b, p. 460).

A careful reading of Sue's original formulations of locus of responsibility (D. W. Sue, 1978a, 1978b), compared with Rotter's (1966)

description of locus of control, leads to an interesting conclusion about the nature of these constructs. Locus of responsibility focuses upon the extent to which societal forces ("powerful others," in Rotter's phrase), impose restrictions upon ("control") the individual's opportunities for success ("reinforcement"). Phrased in this manner, such a comparison suggests that, despite a superficial difference created by the addition of language involving attribution and blame, locus of responsibility is actually a special case, as it were, of locus of control. Locus of responsibility is locus of control, restricted in scope to focus on the perceived power that societal forces have to control one's opportunities for success in life. Locus of control is a more general, and much less focused, construct, which conceptually pertains, not only to the role that social forces play in affecting one's opportunities, but also to the role of luck, destiny, and chance.

From both a general research and a psychometric point of view, Sue's formulation of locus of responsibility is fortuitous. Locus of control has long been recognized as a multidimensional construct masquerading as a unidimensional one (Lefcourt, 1982; Sue, 1978b, p. 459). Sue's formulation of locus of responsibility presents researchers with the advantages of a comparatively more focused construct. In addition, in terms of psychometric practice, the items of Rotter's I-E scale (Rotter, 1966) focus much more on the perceived power of luck than on any other potential external factor, thus making for an unbalanced assessment of beliefs about the control of reinforcements. The ideal position to take (and one followed in the present study) is one in which the locus of control construct is narrowed (in accordance

with the plurality of items on its most popular instrument) to refer to control beliefs concerning luck, chance, and destiny, while control beliefs concerning the power of social forces are split off into the locus of responsibility construct.

It is tempting to speculate concerning the reason that locus of control was defined in such a way as to make a subsequent reformulation necessary. Rotter published the seminal paper on locus of control in 1966. Given the realities of the publication process, this almost certainly means that the construct itself was being formulated before 1964, in an American social milieu that was pre-Watergate, pre-Selma, pre-women's-liberation-movement, pre-Dallas, and, for most practical purposes, pre-Vietnam. In such an social environment, it would not be surprising for the potential power of societal forces to be lumped together in a heterogeneous category with other "external" forces such as luck, destiny, or chance.

On the other hand, Sue, publishing in 1978, would have formulated the locus of control construct in the context of vast social unrest revolving around the Vietnam War, the civil rights movement, the women's liberation movement, and the Watergate affair, all occurring in the shadow of the Kennedy and King assassinations. These were events and episodes that served to sensitize the American culture generally to the impact of larger social forces on matters of social injustice and individual opportunity. In light of these considerations, it is not surprising that the locus of control construct should need refocusing, nor that the locus of responsibility construct should be formulated to assist in that refocusing.

Sue's model is concise and parsimonious. These dimensions have been identified as among the beliefs most affected by the experience of trauma (Janoff-Bulman, 1992). However, although locus of control and locus of responsibility are doubtless important for a comprehensive model of world view, these dimensions clearly leave a great deal of conceptual territory uncovered. This may be why in recent years Sue has also paid much attention to the Kluckhohn model of world view (comparing Sue, 1981, with D. W. Sue & D. Sue, 1999).

Relatively little research has been conducted within Sue's model, perhaps because of the paucity of assessment instruments for locus of responsibility. The only instrument developed before the present study for that construct is that of Latting and Zundel (1986), which presents with certain psychometric difficulties, as described later in this chapter.

Summary: Previous Conceptualizations

The world view construct has been conceptualized by many different thinkers. In this section of the chapter, focus has been placed on the thought of Freud, Kluckhohn, and Sue. For Freud, crucial dimensions of world view included beliefs about epistemology, metaphysics, and agency. Kluckhohn described several dimensions, including beliefs about the goodness and mutability of human nature, and orientations to nature, time, activity, group, and authority. Especially in Sue's earlier work, world view was largely captured in the constructs of locus of control and locus of responsibility.

World View Dimensions Relevant to Counseling and Psychotherapy

An inspection of the preceding section of this chapter (as well as Appendixes A and B) reveals that there are many dimensions to the world view construct. It is clearly beyond the scope of a single doctoral dissertation to develop one gigantic battery of scales to assess them all. Consequently, it was important to be selective in the choice of dimensions for which scales were to be developed in the present research. But which dimensions should be chosen? For it is not clear which dimensions of world view are of the most importance (Kluckhohn & Strodtbeck, 1961/1973; Triandis, 1985).

For the purposes of this study, it was determined to focus on dimensions of world view that have been judged most likely to be of relevance to counseling and psychotherapy. Hence, a search was conducted of the works of prominent theorists and researchers to identify world view dimensions that are most relevant to this field. Four authors in particular were especially useful in identifying relevant dimensions of world view: Allen Bergin, Derald Wing Sue, Jane Treviño, and Harry Triandis. Each of these individuals, and their thought concerning therapy-relevant world view dimensions, are described below.

Dimensions Discussed by Allen Bergin

Allen Bergin is a prominent figure in psychotherapy research (Bergin & Garfield, 1994), and has written and conducted research concerning a particular kind of "cross-cultural" counseling encounter: therapy with individuals holding a prominent religious commitment

(Bergin, 1980a, 1980b, 1991; Richards & Bergin, 1997, 2000). Four aspects of world view emerge as particularly relevant to counseling and psychotherapy from a close consideration of Bergin's thought on therapy.

First, beliefs regarding metaphysics are crucial. That is, it is crucial for a therapist to understand the therapist's and the client's positions concerning this basic aspect of reality: Do we live in a spiritualist universe, in which we have a real relationship to a Divine Being or Beings—what Bergin termed "theistic realism" (Bergin, 1980a, p. 99)—or do we live in a materialist universe, where no such relationship is possible? This dimension of world view underlies many other issues that Bergin saw as particularly thorny in terms of therapist—client world view differences, such as concept of divinity, self-actualization versus self-transcendence as overarching motivation, universalist versus contextualist ethics (Bergin, 1980a, p. 99), and concepts about ultimate human destiny (Bergin, 1980a; Richards & Bergin, 1997).

Beliefs concerning human agency are also quite crucial. The agency dimension was explicitly noted by Bergin as an area of conflict between modern psychology and theistic religious traditions (Richards & Bergin, 1997, p. 30), as well as an area where naturalistic, scientific world views conflict with eastern and western spiritual world views (Richards & Bergin, 1997, pp. 72-73).

Beliefs regarding epistemology are also important in Bergin's view. Bergin indicated, as did Freud, that one aspect of spiritual or religious world views is the notion that "human beings can learn truth

in a variety of ways, including ... intuition and inspiration ... from God" (Richards & Bergin, 1997, p. 31). However, as Bergin concurred with Freud, one aspect of a modernistic viewpoint in science is that "nothing is true or real except that which is observable through sensory experience or measuring instruments" (Richards & Bergin, 1997, p. 31; compare Freud, 1933b/1965, pp. 139-140, quoted earlier). This creates the potential for a powerful conflict between client and therapist world views. Bergin's correspondents in a debate in the literature regarding values and psychotherapy agreed that the matter of epistemology was highly relevant for the field (Ellis, 1980; Walls, 1980).

Finally, beliefs concerning personal responsibility (encompassing both locus of control and locus of responsibility) are crucial from Bergin's viewpoint. Bergin emphasized the importance for therapy of the distinction between a position of "personal responsibility for [one's] own harmful actions and changes in them" versus the notion that "others are responsible for our problems and changes" (Bergin, 1980a, p. 100).

Dimensions Discussed by Derald Wing Sue

Derald Wing Sue is a prominent author and researcher in multicultural counseling and therapy (D. W. Sue & D. Sue, 1999). His world view model was described earlier in this chapter (D. W. Sue, 1978a, 1978b).

Sue has strongly endorsed the basic outlines of the Kluckhohn model of world view as being important for counseling and psychotherapy (D. W. Sue & D. Sue, 1999). In addition to those

dimensions of world view, in his own model, Sue has asserted the overarching importance of two dimensions described in detail earlier in this chapter: locus of control, and locus of responsibility (Sue, 1978a, 1978b). Sue has indicated that his hope in proposing this model was to counteract the potentially detrimental effects of person- (as opposed to system-) oriented counseling, which "may work to the detriment of minorities who have experienced severe discrimination" (Sue, 1978b, p. 460).

Dimensions Discussed by Jane G. Treviño

Jane G. Treviño published an article outlining a model for change in psychotherapy and counseling, a model in which the world view construct plays a central role (Treviño, 1996). Treviño explicitly dealt with the question of which world view dimensions are most relevant for counseling and psychotherapy, on the basis of comprehensiveness, applicability across cultures, and demonstrated relevance to counseling (Treviño, 1996, p. 209).

Treviño strongly recommended the dimensions of world view that are based in the Kluckhohn model. In her article, Treviño offered two case studies in illustration of the importance of keeping these dimensions (particularly the Human Nature orientation and the Relational Orientation) in mind in multicultural counseling.

Treviño firmly asserted the importance of attending to the epistemological dimension of world view. Treviño particularly cited the value of counselors learning the conceptualizations of Royce and

Mos (1980) in assessing people's adherence to logic, metaphor, or empiricism as guides to valid knowledge.

Indirectly, Treviño noted the importance of attending to the metaphysical dimension of world view. Treviño suggested that an important aspect of world view involves beliefs about the causes and cures of disorders. As will be discussed later, an important aspect of many cultural beliefs involves the spiritual roots of disorder and their cures, and the spiritual bases of challenges in life and appropriate ways to address them.

Dimensions Discussed by Harry C. Triandis

Harry C. Triandis is a prominent researcher and editor in multicultural psychology (Triandis, 1980, 1996). In a contribution to the *Handbook of Cross-Cultural Counseling and Therapy*, he explicitly addressed the question of what dimensions of world view are of interest to the researcher and clinician in this field (Triandis, 1985).

Triandis singled out beliefs regarding mutability as particularly relevant to counseling and therapy:

> Some values [sic] are particularly important. Whether human nature is conceived as ... changeable (leading to optimism about counseling and therapy) or immutable (leading to pessimism about counseling and therapy) is an obviously critical dimension. (Triandis, 1985, p. 24)

Triandis noted that two variables of interest to therapists that vary by culture are "sense of power (powerful versus impotent) and activity (active versus passive)" (Triandis, 1985, p. 24). These variables would seem to relate most closely to world view beliefs concerning human agency, locus of control, and locus of responsibility.

Triandis has claimed that the distinction between "vertical" and "horizontal" cultural approaches is crucial in understanding cultures and the people within them (Triandis, 1996; Triandis, Chen, & Chan, 1998; Triandis & Gelfand, 1998). Of course, this is essentially the difference between the Linear and Lateral positions in the Relation to Authority dimension.

Similarly, Triandis has claimed that the Individualism—Collectivism distinction is crucial to cross-cultural understanding; he has suggested that this distinction is an important aspect of the self-concept that is highly relevant to counseling and psychotherapy (Triandis, 1985, 1989/1995b). Indeed, Triandis designated individualism—collectivism as "the single most important dimension of cultural difference in social behavior" (quoted in Niles, 1998, p. 316).

On a different tack, Triandis noted:

> In some cultures all information must be packaged into a broad framework defined by the culture. The framework may have a religious ... or political ... basis. Actions are "correct" to the extent that they conform to this ideology. (Triandis, 1985, p. 23)

This strongly implies that the metaphysics dimension of world view is related to judgments about correct or incorrect actions, hence making this dimension an important one for counseling and psychotherapy.

Choosing Among Dimensions

Summarizing what has been said above concerning the thought of Bergin, Sue, Treviño, and Triandis, these researchers suggested that the following dimensions of world view are of particular import for counseling and psychotherapy: metaphysics, agency, epistemology,

locus of control, locus of responsibility, and the dimensions of the Kluckhohn model, namely, human nature orientation, mutability orientation, relation to nature orientation, time orientation, activity orientation, and relational orientation (which we have reconceptualized as two separate dimensions, relation to authority and relation to group). These total 11 dimensions of world view relevant to counseling and psychotherapy, which was clearly too many to develop into an instrument within the limitations of a doctoral dissertation. However, it proved possible to whittle the number of dimensions addressed in this dissertation to a more manageable number.

The assessment of several dimensions of the Kluckhohn model (human nature orientation, relation to nature orientation, time orientation, and activity orientation) has been addressed by other instrument development projects, such as those involving the Scale to Assess World Views (Ibrahim & Kahn, 1984, 1987; Ibrahim & Owen, 1994), the Value Orientation Scale (n.d.; see also Szapocznik, Scopetta, Aranalde, & Kurtines, 1978), the Intercultural Values Inventory (Carter & Helms, 1987; Carter & Parks, 1992), and the Value Orientations Questionnaire (Green, 1979; Green & Haymes, 1973). Consequently, those dimensions of the Kluckhohn model did not concern us in the present study.

The assessment of epistemology proved to involve the creation, not of just one scale, but of several, in order to address not only the facets of valid knowledge mentioned in Royce's theory of knowledge (Royce, 1964; Royce & Mos, 1980), but several others besides (Bergin,

1980a; Richards & Bergin, 1997). Consequently, it seemed appropriate to defer consideration of epistemology to another assessment effort.

Finally, the assessment of locus of control has been addressed by Rotter's original I-E Scale (Rotter, 1966), and many subsequent variations on the theme (Lefcourt, 1982). Thus, it seemed unnecessary to attempt another development project for the assessment of this construct. However, as mentioned in Chapter III of the present study, locus of control items were included in research protocols, in order to explore the relation of locus of control to those dimensions of world view that were addressed in this study.

The remaining dimensions of world view were selected for the psychometric development effort described in the present study: agency, mutability, locus of responsibility, relation to authority, relation to group, and metaphysics. The remainder of this chapter surveys ways in which these dimensions (and locus of control) have been discussed, specifically in the world view literature, and describes previous efforts to develop instruments to assess these dimensions.

World View Dimensions Addressed in the Present Study

On the basis of the considerations described in the preceding part of this chapter, six dimensions of world view were selected for the development of psychometric scales during the present study: agency, mutability, locus of responsibility, relation to authority, relation to group, and metaphysics. These dimensions, as well as the locus of control dimension, are described below in terms of the world view literature and selected aspects of the general psychology literature.

The Agency Dimension

The agency dimension derives from Freud's implicit model of world view, and involves existential beliefs about the causes of human behavior. Like all the world view dimensions addressed in the present study, agency is conceptualized as a spectrum of belief positions that is best described in bipolar terms. At the Voluntarist pole, beliefs reflect the position that free will is a real human capacity, and that at least some behavior is actually chosen through free will. At the Determinist pole, beliefs reflect the position that all behavior is determined (environmentally, genetically, socially, or intrapsychically), and that the experience of free will is illusory.

This dimension is represented on four sub-dimensions of Coan's (1979) model of world view, which derived from a factor analysis of responses to survey items. The agency dimension was suggested as being relevant to counseling and psychotherapy by Bergin (Richards & Bergin, 1997, p. 30) and Triandis (1985, p. 24), as mentioned earlier.

Agency is of enormous importance in psychology for the conceptualization of personality and behavior (Bakan, 1996; Valentine, 1992). Despite the assertion that a thoroughgoing determinism is a basic tenet of a scientific psychology (Kimble, 1989/1998, p. 20), there is enough disagreement on this issue among psychologists (e.g., Howard, 1993, 1994a, 1994b; Mahoney, 1993; Rychlak, 1979; Slife, 1994; Tinsley, 1993) to demonstrate that there is room for a conceptualization of agency within a rigorous psychology. Agency is at the heart of contemporary notions of human behavior from the standpoint of social cognitive theory (Bandura, 1989). Agency has an important place

within conceptualizations of psychotherapy, whether the person is considered to be an isolated unit, or is conceptualized from a more relational perspective (Richardson, 1994).

The Mutability Dimension

Mutability, as mentioned earlier, is a neglected aspect of the Kluckhohn model (F. R. Kluckhohn, 1950; Kluckhohn & Strodtbeck, 1961/1973), and involves existential beliefs about whether adult human nature is changeable or permanent. At the Changeable pole, beliefs reflect the position that human nature, character, and habits can be altered by external forces. At the Permanent pole, beliefs reflect the position that human nature, character, and habits are, as it were, "written in stone," and are not subject to any but the most superficial and temporary change through external forces.

Wrightsman (1992) found that an important element of people's philosophies of human nature involves beliefs about the variability of human nature, which is related to the mutability dimension. With regard to counseling and psychotherapy, the mutability dimension was mentioned explicitly by Triandis (1985, p. 24), as mentioned earlier.

The Locus of Control Dimension

The locus of control dimension reflects a refinement of Rotter's (1966) conceptualization; it has an important place in Sue's model of world view (D. W. Sue, 1978a, 1978b; D. W. Sue & D. Sue, 1999). As conceptualized in this study, locus of control involves existential beliefs about whether positive or negative outcomes are the result of

one's own actions or of luck. At the External pole, beliefs reflect the position that one's reinforcements are more the result of luck than one's personal efforts or characteristics. At the Internal pole, beliefs reflect the position that one's reinforcements are the result of one's personal efforts or enduring characteristics.

There is, of course, a massive literature pertaining to locus of control (Lefcourt, 1982) as the construct was originally formulated by Rotter (1966). In terms of world view models, this dimension was explicitly mentioned as relevant to counseling and therapy by Sue (D. W. Sue, 1978a, 1978b; D. W. Sue & D. Sue, 1999), and seems to be reflected in the dimensions of "sense of power (powerful versus impotent), and activity (active versus passive)" cited by Triandis as important aspects of cultural values (1985, p. 24). For example, locus of control seems to be at issue in some cultural differences between Korean immigrants and non-minority Americans, differences that have implications for counseling and therapy (Donnelly, 1992).

The Locus of Responsibility Dimension

The locus of responsibility dimension is also an aspect of Sue's model of world view (D. W. Sue, 1978a, 1978b; D. W. Sue & D. Sue, 1999). It reflects existential beliefs about whether one's status and opportunities for success in life are one's personal responsibility or the outcome of external social forces (as a sort of special case of the locus of control construct in Rotter's original formulation; Rotter, 1966). At the External pole, beliefs reflect the position that one's opportunities, successes, and failures in life are the result of powerful social forces,

such as racism or injustice. At the Internal pole, beliefs reflect the position that one's opportunities, successes, and failures in life are the result of one's own efforts and personal characteristics.

This dimension was explicitly mentioned by Sue as relevant to counseling and psychotherapy, as discussed earlier. This dimension also seems implied in Triandis' "sense of power ... and activity" (Triandis, 1985, p. 24), mentioned earlier. Bergin, too, considered this an important dimension for therapy, as noted above (Bergin, 1980a, p. 100).

Some have hypothesized that locus of control, as Rotter originally formulated it, is a function of culture, while others have hypothesized that it is a function of discrimination and oppression (Atkinson & Thompson, 1992). These considerations are even more pertinent to locus of responsibility. In a sense, the second hypothesis implies the first, as in situations where a legacy of oppression and discrimination have deeply scarred a culture. In either hypothesis, it is clear that cultural history and locus of responsibility are intertwined, so that to understand the one requires an understanding of the other.

The Relation to Authority Dimension

Relation to authority is an aspect of the Kluckhohn model's Relational Orientation. Relation to authority reflects prescriptive and proscriptive beliefs concerning the "proper" or "best" way that authority functions. At the Linear pole, beliefs reflect the position that it is best to have a clear and stable hierarchy of authority, where one shows deference and obedience to those who occupy superior positions

in the hierarchy, and where one expects obedience from those who occupy subordinate positions. At the Lateral pole, beliefs reflect the position that it is best to share authority and decision-making power broadly, in a structure where people are considered essentially as equals, despite role differences.

This dimension reflects a distinction between "horizontal" and "vertical" cultural approaches. Triandis has claimed that knowledge of this distinction is crucial for understanding cultures and the people within them (Triandis, 1996; Triandis, Chen, & Chan, 1998; Triandis & Gelfand, 1998).

Carter (1991), Ibrahim (1985a, 1985b, 1991), Sue (D. W. Sue & D. Sue, 1999), and Treviño (1996), in endorsing the Kluckhohn model generally as relevant to multicultural and generic counseling and psychotherapy, thereby so endorsed this dimension. Treviño (1996) also offered a case study, in which this dimension is used to address a client's concerns in a counseling session. Brown (1997) has specifically indicated that this dimension should be attended to in cross-cultural consultation with families. Differences between ethnic minority populations and majority populations in the United States in terms of relation to authority, with consequences for counseling and psychotherapy, have been noted regarding African-Americans (Carter & Helms, 1987), Cuban immigrants (Szapocznik, Scopetta, Aranalde, & Kurtines, 1978; Szapocznik, Scopetta, & King, 1978), Korean immigrants (Donnelly, 1992), and Puerto Ricans (Inclan, 1985).

The Relation to Group Dimension

Relation to group reflects a different aspect of the Kluckhohn model's Relational Orientation, distinct from relation to authority. Relation to group reflects prescriptive and proscriptive beliefs about the relative importance of the agendas of the individual and the reference group (e.g., family, work group, worship community, school group, sports or activity group, etc.), when there is a conflict between the two. At the Individualist pole, beliefs reflect the position that the individual's agenda prevails over that of the reference group. At the Collectivist pole, beliefs reflect the position that the reference group's agenda prevails over that of the individual.

This dimension reflects the individualism—collectivism distinction, a concept that has gained a great deal of attention in cross-cultural psychology since 1980 (see review in Kagitçibasi, 1997). Triandis considered this dimension crucial for understanding a culture or its people (Triandis, 1996; Triandis, Chen, & Chan, 1998; Triandis & Gelfand, 1998). Triandis has designated individualism—collectivism as "the single most important dimension of cultural difference in social behavior" (quoted in Niles, 1998, p. 316). The shift from collectivist to individualist ethics in European and European-affiliated civilizations has been deemed "the most significant shift in belief" in those societies over the last one thousand years (Russo, 1999, p. 87). This shift, occurring in our day in many cultures around the world, is at least partially responsible for the rapidity with which the social world of children is changing in those cultures (Camilleri & Malewska-Peyre, 1997, p. 43). The individualism—collectivism distinction has

been found to be robust across cultures, emerging as a major characteristic that distinguishes among cultures and their values, as studied by multicultural researchers (Schwartz, 1992, 1994; Schwartz & Bilsky, 1987, 1990).

Triandis suggested that the individualist—collectivist distinction is an important aspect of the self-concept that is highly relevant to counseling and psychotherapy (Triandis, 1985, 1989/1995b). Several researchers have specifically indicated that this dimension should be attended to in cross-cultural consultation with families (D. Brown, 1997; Harrison, Wilson, Pine, Chan, & Buriel, 1990). This dimension (called "concept of self" by the authors) has been recommended for emphasis in the multicultural training and supervision of counselors (M. T. Brown & J. Landrum-Brown, 1995). Carter (1991), Ibrahim (1985a, 1985b, 1991), Sue (D. W. Sue & D. Sue, 1999), and Treviño (1996), in endorsing the Kluckhohn model generally as relevant to counseling and psychotherapy, thereby so endorses this dimension. Differences between ethnic minority populations and majority populations in the United States in terms of relation to group, with consequences for counseling and psychotherapy, have been noted regarding African-Americans (Carter & Helms, 1987), Cuban immigrants (Szapocznik, Scopetta, Aranalde, & Kurtines, 1978; Szapocznik, Scopetta, & King, 1978), Korean immigrants (Donnelly, 1992), Puerto Ricans (Inclan, 1985), Russian immigrants (Hudgins, 1997), and Southeast Asian refugees (Gerber, 1994).

It is important to note that, in Triandis' conception, individualism—collectivism can vary for the same person across

contexts (Hui, 1988; Triandis, 1995a; Triandis, Chen, & Chan, 1998; Triandis & Gelfand, 1998). That is, an individual may be an individualist in regards to colleagues, but a collectivist in respect to the nuclear family of which this person is a member. Important as this distinction is, it was thought that it would still be useful to have a global, unidimensional measure of relation to group. Consequently, this was the approach taken in the present research.

It is also worth noting that, as Triandis has used the terms, individualism and collectivism refer to societies, not individuals (for whom Triandis recommended the terms idiocentric and allocentric; Triandis, 1995b). Also, for Triandis, individualism and collectivism are what he has called "cultural syndromes," which can be differentiated in terms of goal structures, norms, attitudes, exchange relationships, and other characteristics (Triandis, 1996). The present research departs from Triandis' conceptualization in both ways. That is, the terms individualism and collectivism are used here in relation to individuals as well as societies (as is done by, for example, Matsumoto, Weissman, Preston, Brown & Kupperbusch, 1997). In addition, the constructs are limited in their meaning to refer only to certain beliefs about goal priorities, as described earlier.

Current conceptualizations of individualism—collectivism have been criticized on the grounds that group and individual goals need not conflict (Niles, 1998). The present author feels that, although that point is certainly true, the litmus test for differentiating between individualist cultures (and individuals) and collectivist cultures (and individuals) occurs precisely on those occasions when group and

individual goals do conflict. Thus, assessment of the construct in the present study focused on such situations of conflict between individual and group goals.

The Metaphysics Dimension

The metaphysics dimension is an aspect of Freud's (1933b/1965) concept of world view, and is implicit in Stace's (1960) model, as well. It reflects existential beliefs about the nature of reality. At the Spiritualist pole, beliefs reflect the position that "spirit is a prime element of reality" (*Webster's Ninth New Collegiate Dictionary*, 1991, p. 1137, s.v. "spiritualism"); that is, reality has an actual unseen, spiritual aspect to it, in that there are spiritual beings or powers to which the individual or group can relate. At the Materialist pole, beliefs reflect the position that "physical matter is the only or fundamental reality and that all being and processes and phenomena can be explained as manifestations or results of matter" (*Webster's Ninth New Collegiate Dictionary*, 1991, p. 733, s.v. "materialism"); that is, reality is best described in purely material terms, and no spiritual beings or powers exist.

The nature of this dimension is such that it is important to distinguish between the terms "spiritualism" and "materialism," as they are used in the present research, from the way in which they and related terms are used in everyday discourse. For example, it is important to distinguish between spiritualism, in the sense used here, and the term "spirituality." Spiritualism, as used in the present study, refers to a belief about reality:

[Some people] are raised *knowing of* this world and another,
Heaven and Earth, "inner man" and "outer," time and eternity,
sacred and mundane, holy day and day to day. It hardly matters
what words or images ... convey this perception ... provided that
they create a sense of the visible and the invisible—both real ...
—to be found in the world at large and in the inner world of the
individual. (Lipsey, 1988/1997, p. 7, emphasis in original)

Thus, spiritualism, as a belief in an unseen world as an actual

aspect of reality, an unseen world in which the quotidian is immersed,

is a part of some people's world view. It is thus to be distinguished

from spirituality, which, in psychology, is a multidimensional

construct that has been defined in multiple ways, some involving

experiences and emotions, some involving behaviors and specific

doctrinal beliefs—and, indeed, some being defined in ways that

contradict other formulations of the construct (Benjamin & Looby,

1998; Elkins, Hedstrom, Hughes, Leaf, & Saunders, 1988; Faulkner &

DeJong, 1966; Glock, 1962; Ingersoll, 1994; Mack, 1994; Maher & Hunt,

1993; Wulff, 1997; Yinger, 1969, 1977). It should be clear that

spiritualism, as used here, is a smaller construct, a world view option

that is, perhaps, a component of the larger construct of spirituality.

In the same way, it is important to distinguish between

materialism—which, as used in the present study, refers to ontological

materialism, the belief that reality is best described in purely material,

non-spiritual terms—and what may be termed "lifestyle materialism."

Lifestyle materialism has been described as

the dominant value set in our society. This perspective values
the acquisition and refinement of material resources and
increased accessibility to and use of such resources. It values
power and control of the physical world. (Docherty, 1984, p. 140)

At an extreme, lifestyle materialism is embodied by the film character Gordon "Greed is Good" Gekko (Weiser, Stone, & Pressman, 1987). The essence of lifestyle materialism is expressed in an extreme way through the popular phrase, "Whoever dies with the most toys wins." Although interesting as a subject of study in and of itself, lifestyle materialism is not what is meant by the term "materialism" in the present study, which focuses on ontological materialism.

The metaphysics dimension is very close to the so-called "transcendent dimension" in the nine-dimensional model of spirituality devised by Elkins, Hedstrom, Hughes, Leaf, and Saunders (1988). However, the metaphysics dimension in the present research lacks the experiential aspect of the "transcendent dimension" of the model of Elkins and his colleagues.

The metaphysics dimension was endorsed as relevant for counseling and therapy by Bergin (1980a; Richards & Bergin, 1997). This dimension (called "ontology" by the authors) has been recommended for emphasis in the multicultural training and supervision of counselors (M. T. Brown & J. Landrum-Brown, 1995). The importance of this dimension for therapy and counseling is implicit in the thought of Treviño and Triandis.

Treviño (1996) suggested that an important aspect of world view involves beliefs about the causes and cures of disorders. As it happens, an important aspect of many cultures and sub-cultures involves beliefs about the spiritual roots of disorders and their cures, and the spiritual bases of challenges in life and appropriate ways to address them (Bird & Canino, 1981; Chiu, 1996; Delgado, 1979; Gerber, 1994; Harrison, Wilson,

Pine, Chan, & Buriel, 1990; Lefley, 1985; Nuland, 1997; Wiesner, 1996;

Wohl, 1976). Beliefs about the spiritual roots of client concerns and

approaches to resolving them play a particularly clear role in so-called

"culture-bound" syndromes such as ghost sickness, mal de ojo,

rootwork, spell, susto, zar (American Psychiatric Association,

Diagnostic and Statistical Manual of Mental Disorders [DSM-IV], 1994),

witiko (Matsumoto, 1996), and hexing (Golden, 1977). However, the

importance of spiritual perspectives in facilitating general growth and

healing for clients of any culture is being recognized increasingly in the

counseling literature (R. J. Chapman, 1996; Constantine, 1999; Koenig,

1999; Koltko, 1990; Lovinger, 1984, 1990; Mack, 1994; G. Miller, 1999; W.

Miller, 1999; Parker, 1996; Richards & Bergin, 1997, 2000; Shafranske,

1996; Waldfogel & Wolpe, 1993).

Dana (1994) noted that the metaphysics dimension raises an

ethical concern in the testing and assessment process. Specifically, he

noted that "people from non-Euro-American cultures have an

enlarged self-concept ... that may include natural and spiritual forces as

well" (Dana, 1994, p. 351). He pointed out that an understanding of a

client's world view on this dimension is crucial for accurate

interpretation of assessment data, to avoid pathologizing belief systems

that may not be held by the assessment professional. Of course, this is

part of the larger issue, where it is recommended that any professional

performing an assessment gain an understanding of the world view of

the person who is being assessed (Lonner & Sundberg, 1985).

Previous Assessment Efforts

There have been numerous attempts to develop scales to assess one or another aspect of the world view construct, whether or not the term "world view" was used by the investigator involved. Consequently, considerations of incremental clinical utility dictate that it is important to demonstrate a need to develop new scales (Haynes, Nelson, & Blaine, 1999, p. 139). This section of the chapter describes attempts that have been made to develop assessment instruments for the dimensions of world view that are of interest to the present research.

Three strategies were used to find instruments that addressed the relevant dimensions of world view. First, the relevant works of the world view theorists and researchers mentioned in this chapter and Appendix A were searched for instruments of interest. Second, *Psychological Abstracts* (in paper and CD-ROM form) was reviewed, for the years 1989 into 1998, using the search term "world view." Third, specialized guides were consulted regarding instrumentation in social psychology, (Robinson, Shaver, & Wrightsman, 1991), the psychology of religion (Wulff, 1997), and transpersonal psychology (MacDonald, LeClair, Holland, Alter, and Friedman, 1995).

Assessment of Agency

The agency dimension is not addressed in most world view assessment instruments. However, agency is addressed in two instruments developed by Coan: the Theoretical Orientation Survey (Coan, 1979), and the General Beliefs survey (Coan, 1974).

Theoretical Orientation Survey (TOS)

The Theoretical Orientation Survey (TOS) was developed to assess the theoretical predilections of psychologists (Coan, 1979). It is a 63-item inventory using a five-point Likert response scale. Each inventory item is associated with one of eight scales representing issues regarding psychologists' theoretical positions (e.g., taking a factual versus a theoretical orientation in one's teaching or writing). Three of the factors derived through factor analysis of TOS responses are relevant to the agency aspect of world views: impersonal causality versus personal will (Factor 2), biological determinism (Factor 5), and environmental determinism (Factor 6). Using a sample of 866 members of the American Psychological Association, alpha reliabilities for the three scales above ranged from .79 to .86, while retest reliabilities ranged from .81 to .86. Validity data have not been reported for these scales.

While the scales show strong indicators for reliability, the items themselves often use a vocabulary that is geared for a professional audience, rather than for a general one. For example, consider the following items (Coan, 1979, pp. 156-161):

> 26. In principle, an individual's choice or decision can never be fully predicted from antecedent conditions or events. (Factor 2: Impersonal causality vs. personal will)

> 62. The structure of human thought is governed to a great extent by innate factors. (Factor 5: Biological Determinism)

> 43. Every frequently recurring action is controlled or regulated to a great extent by environmental influences or effects, whether the individual who displays it realizes this or not. (Factor 6: Environmental Determinism)

Thus, in its current form, the TOS is more appropriate for its intended target population—psychologists—than for the general public. This makes the TOS inappropriate for use in the current study.

General Beliefs

The General Beliefs questionnaire was specifically designed to assess world views among the general population (Coan, 1974). It consists of 130 items with a five-point Likert response scale. The items seem to be easily understandable to a general audience (e.g., "It is only natural for a person to be rather fearful of the future"). The factor structure, reportedly, "on the whole ... approaches orthogonality," and "most of the factor intercorrelations are close to zero" (p. 119). Further validity data are lacking. One factor of the instrument is relevant to the agency aspect of world view. Factor 15 (Mechanism) is defined by the following two items (Coan, 1974, pp. 110-115):

> 29. We can best gain an understanding of people if we think of them as very complicated machines.

> 111. Living organisms are basically just complicated machines.

Although these two items reflect well the determinist pole of the agency dimension of world view, there are problems involved in using this factor to assess the agency dimension. Item #111 is not confined to human behavior, which is the focus of the agency dimension. Also, although reliability data are lacking, a scale with two items is highly unlikely to be sufficiently reliable for use in psychological assessment. Consequently, the General Beliefs questionnaire is inappropriate for the present research.

Summary: Instrumentation to Assess Agency

In sum, there is a lack of appropriate assessment instruments that address the world view dimension of agency. Of those scales that address agency, one (TOS) does so with a sophisticated vocabulary that is inappropriate for use with the general public. Another scale (General Beliefs) has too few items to be sufficiently reliable for use as a psychological instrument. These considerations indicate the need for a new scale that assesses the agency dimension of world view.

Assessment of Mutability

The mutability dimension has always been a part of Kluckhohn's model of world view. Despite this, mutability has been noticeable by its absence from instruments meant to assess world view along the lines of the Kluckhohn model, such as the Scale to Assess World Views (Ibrahim & Kahn, 1984).

This omission raises a question. Given the popularity of Kluckhohn's model in, for example, multicultural counseling theory and research (e.g., Carter, 1991; Ibrahim, 1985a, 1985b; Inclan, 1985; D. W. Sue & D. Sue, 1999; Treviño, 1996), why has the mutability dimension received such short shrift in assessment efforts? To some extent, the reason for this can be found in Kluckhohn's original formulation, which treated mutability with a certain degree of tentativeness.

Kluckhohn described mutability as a variation within the model's human nature orientation, as a sort of sub-dimension that Kluckhohn did not name separately. Although mutability was clearly

implied in even the earliest presentations of Kluckhohn's model, it did not appear in the earliest diagram or lists that summarized the model in Kluckhohn's articles (F. R. Kluckhohn, 1950, 1951, 1967a). After a few years, mutability did begin to appear in charts summarizing Kluckhohn's model (Kluckhohn, 1953, 1958, 1967b), including Kluckhohn's best-known and often-imitated depiction of her model in *Variations in Value Orientations* (Kluckhohn & Strodtbeck, 1961/1973, Table I:1, p. 12). However, mutability continued to be treated as a sort of demi-dimension, not rating a separate line as an "orientation" in its own right. Mutability was not addressed in Kluckhohn's instrument, the Value-Orientation Schedule (Kluckhohn & Strodtbeck, 1961/1973).

As Kluckhohn's chart was recreated in subsequent works by other scholars, mutability was included by few (e.g., Green, 1979, Table 1, p. 393; Inclan, 1985, Table 1, p. 326) and omitted by many (e.g., Beutler & Bergan, 1991, Table 1, p. 21; Carter, 1991, Table 1, p. 166; A. D. Chapman, 1981, Table 1, p. 638; Dana, 1993, Table 1-2, p. 12; Ibrahim, 1985a, Table 1, p. 629; Ibrahim & Kahn, 1987, Table 1, p. 165; Papajohn & Spiegel, 1975, Table 1, p. 22; D. W. Sue & D. Sue, 1999, Table 8.1, p. 167). What dropped out of sight from the tables apparently dropped out of mind conceptually for developers of assessment instruments along the lines of the Kluckhohn model.

It might be thought that, although the matter of the mutability of human nature might be missing from instruments specifically devised for the Kluckhohn model, nonetheless other assessment instruments might feature this world view dimension. Indeed, such is

the case in one instance, although there are serious problems with the way that the dimension has been addressed in this instrument.

Philosophies of Human Nature Scale

Mutability was addressed in the bipolar "Variability versus Similarity" scale of the Philosophies of Human Nature Scale (Wrightsman, 1974, 1992). In this scale, the "Variability" pole reflects the belief that individuals are different from one another in personality and interests, and that a person can change over time. The "Similarity" pole reflects the belief that people are similar in interests, and that people do not change over time.

As can be seen from this description, in Wrightsman's scale, beliefs about the mutability of human nature on the level of the individual are intermingled with beliefs about the variability of human characteristics on the level of the group. Thus, the scale does not represent a pure implementation of Kluckhohn's notion of mutability. Essentially, this scale combines two very different aspects of beliefs about people. As such, it was inappropriate for the purposes of the present research.

Summary: Instrumentation to Assess Mutability

In sum, there is a lack of assessment instruments that address the world view dimension of mutability. Instruments devised with the Kluckhohn model in mind have omitted this dimension. One instrument, developed outside the Kluckhohn model, addresses this dimension in a way that combines it with a different dimension of

human belief. These considerations indicate the need for a new scale that assesses the mutability dimension of world view.

Assessment of Locus of Responsibility

Several instruments are available that address locus of responsibility. Within social psychology research, two instruments address locus of responsibility through the construct of powerlessness: Neal and Seeman's Powerlessness scale, and Scheussler's Doubt About Self-Determination scale (both described in detail in Seeman, 1991). However, each of these instruments has the disadvantage that it contains a single item to assess locus of responsibility, within a context of many items that assess locus of control. Consequently, neither of these instruments is appropriate for the assessment of locus of responsibility. Of remaining instrumentation, one scale has been specifically constructed to address the construct.

Latting and Zundel's Locus of Responsibility Scale

The only instrument developed thus far specifically to assess locus of responsibility resulted from the work of Latting and Zundel (1986). These authors created a 5-item scale that yielded a standardized Cronbach's alpha coefficient of .79.

Although this scale demonstrates sufficient reliability for use in most research contexts, it has a serious flaw. All five items of the scale represent beliefs about internal locus of responsibility; no items represent the external end of the polarity. Such an item construction strategy is seriously problematic.

It has long been noted that many individuals manifest a response set of acquiescence, in which they tend to agree with a statement that is presented to them (Cronbach, 1946). Indeed, an acquiescent response set is likely to function when an individual is unsure how to respond to an attitude item, given that "the majority of persons, when in doubt, tend to judge statements true" (Cronbach, 1946, p. 490). Consequently, the presentation of items from only one pole in assessing a bipolar construct will likely result in individuals showing artificially elevated tendencies, in the direction of the pole represented by the items. Having a balance of items from both sides of a bipolar construct helps to reduce the impact of an acquiescence response set (Anastasi, 1982; Crocker & Algina, 1986; Kline, 1986).

There is another reason why presenting items from only one pole of a bipolar construct is problematic from a psychometric point of view. Adequate domain sampling, that is, sampling the universe of items for a construct, is important in psychometric development (Kline, 1986; Nunnally & Bernstein, 1994). It can hardly be the case that adequate domain sampling has occurred when only one end of a polarity is represented by items. Indeed, this scale would seem to be an instance of "construct underrepresentation," which has been described as one of the major threats to construct validity for a scale (Messick, 1995, p. 742).

Thus, problems with addressing response sets and domain sampling create a priori problems for the establishment of construct validity with this instrument. It is thus inappropriate for use in the present research.

Summary: Instrumentation to Assess Locus of Responsibility

In sum, there is a lack of appropriate assessment instruments that address the world view dimension of locus of responsibility. Instruments that assess powerlessness in social psychology research typically intermingle a small number of items assessing locus of responsibility within a much larger number of items assessing locus of control. The one instrument developed specifically for this construct addresses only one end of the polarity, raising issues of problematic construct validity. These considerations indicate the need for a new scale that assesses the locus of responsibility dimension of world view.

Assessment of Relation to Authority

The relation to authority dimension has been the focus of assessment efforts from at least two different theoretical directions. These include the Kluckhohn model and the study of authoritarianism.

Instruments Based on the Kluckhohn Model

Relation to authority as a variable emerges from the Relational Orientation within the Kluckhohn model of world view (Kluckhohn & Strodtbeck, 1961/1973). As such, relation to authority is addressed in both the Value-Orientation Schedule (Kluckhohn & Strodtbeck, 1961/1973) and in the Scale to Assess World Views (Ibrahim & Kahn, 1984, 1987). Aside from any other questions that might be raised about these two instruments, however, it is crucial to understand that there is a theoretical confusion within the Kluckhohn model regarding

relation to authority, as mentioned earlier, inasmuch as the Kluckhohn model inappropriately combines the two dimensions, relation to authority and relation to group. This theoretical confusion has the consequence that instruments designed to assess the Relational Orientation in the Kluckhohn model are inappropriate to assess beliefs about relation to authority.

The Fascism Scale (F Scale)

It might be thought that instruments designed to address beliefs about authoritarianism would be useful to assess relation to authority, especially in its linear pole. However appealing this idea might be from the standpoint of practicality, it presents serious logical problems.

Authoritarianism is not the same construct as linearity; indeed, the two constructs do not exist on the same level of abstraction. As conceived in the classic study of the subject, *The Authoritarian Personality* (Adorno, Frenkel-Brunswik, Levinson, & Sanford, 1950/1969), "authoritarianism" describes a complex personality structure, which manifests proto-fascist ideology, ethnocentrism, rigidity in traditional sex roles, and other important characteristics. Thus, as a construct, authoritarianism is a rich, multi-dimensional personality type, for which Adorno and his colleagues could not identify a corresponding opposite (Adorno, Frenkel-Brunswik, Levinson, & Sanford, 1950/1969, p. 1). Linearity, on the other hand, is one pole of a much simpler bipolar construct of belief, which deals solely with a preference for hierarchical rather than communal social forms. It may be argued—and the data of Adorno and colleagues could

be mustered in support for the proposition—that authoritarian personalities would prefer linear to lateral in relation to authority. However, it is a vast logical leap to imply the converse, that is, that linearity suggests tendencies towards authoritarianism. This is similar to the situation in the psychodiagnostic realm, where it has been observed that depressed individuals sometimes lose a significant amount of body weight (*DSM-IV*, 1994): it would be highly erroneous to assume the converse, that significant weight loss clearly indicates depression, given that the former may also result from increased exercise, dieting, or a serious but non-psychiatric medical disorder. Consequently, on logical grounds alone, it is highly questionable to attempt to assess relation to authority with instruments designed to assess authoritarianism.

However, there are also other problems in attempting to use authoritarianism instruments to assess relation to authority. The classic instrument of this type, the Fascism Scale or F Scale (Adorno, Frenkel-Brunswik, Levinson, & Sanford, 1950/1969, pp. 226-227) illustrates the problem typically occurring in authoritarianism instruments. The items of the F Scale are all worded in the authoritarian direction. Thus, "one could not distinguish between respondents who agreed with the ideological content of the statement and respondents who would agree with almost any item" (Christie, 1991, p. 507). This is essentially the acquiescence response set problem mentioned above in relation to the Latting and Zundel instrument for the assessment of locus of responsibility. With each of these

instruments, problems with addressing response sets and domain sampling create a priori problems in terms of construct validity.

Thus, the F Scale and its many derivatives (Christie, 1991) are inappropriate for the assessment of relation to authority. However, as noted in the following section, not all authoritarianism scales derive from the F Scale.

Attitude Toward Authority Scales

Christie has noted that Ray's Attitude Toward Authority scales are "unique ... in that none of the items are taken or modified from ones in the California F Scale" (Christie, 1991, p. 547). The Attitude Toward Authority scales comprise three subscales including a total of 28 items, with half the items being reverse-scored (thus avoiding a major problem with the F Scale). The second and third subscales do not directly address the lineal—lateral distinction, being concerned with regulation and regimentation versus freedom and individuality in the Army and public life (e.g., "people should be made to be punctual"; Christie, 1991, p. 550). The first subscale addresses relation to authority as it has been conceived for the present research, but presents another important problem. Six of the 8 items of this subscale specifically use the term "leader". For example:

> 1. If there is disagreement about a policy, a leader should be willing to give it up. [Reverse-scored]

> 3. It is important for a leader to get things done even if he [sic] must displease people by doing them. (Christie, 1991, p. 549)

This focus specifically on the function of the leader is unfortunate, as it unduly narrows the scope of the construct. Relation

to authority is not all about how the leader of a group functions; indeed, one feature of the lateral approach to authority is that leadership authority is widely distributed. Even for the linear end of the polarity, the issue is not solely about how the leader functions, but about a hierarchy where one's place is known, and where subordinates and superiors function in predictable manners. To put so much emphasis on the leader role alone is an inappropriate restriction of the domain of the construct. Consequently, although it is the strongest of the instruments reviewed for this construct, this scale is not appropriate for the assessment of relation to authority in this study.

The Value Profile: Conceptions of the Desirable Scale

The Value Profile (Bales & Couch, 1969) includes two scales that address the relation to authority. The Acceptance of Authority scale assesses beliefs similar to the linear pole of relation to authority (e.g., "Obedience and respect for authority are the most important virtues children should learn"). The Equalitarianism scale assesses beliefs similar to the lateral pole of relation to authority (e.g., "Everyone should have an equal chance and an equal say").

However, each of these scales includes items that contaminate the scale with other constructs. For example, the Acceptance of Authority scale includes items that seem more related to traditionalism rather than relation to authority as conceptualized in this study (e.g., "The facts on crime and sexual immorality show that we will have to crack down harder on young people if we are going to save our moral standards"). The Equalitarianism scale includes items

that are related to social justice attitudes rather than the lateral pole of relation to authority (e.g., "There has been too much talk and not enough real action in doing away with racial discrimination").

As if these were not sufficient causes for concern, no data about reliability or validity are presented for the Value Profile. In this, it is similar to the Conceptions of the Desirable scale (Lorr, Suziedelis, & Tonesk, 1973), which also presents items that address authority issues. In the case of the Conceptions of the Desirable Scale, there is the added disability that "details are not available to relate particular items to each of the scales" (Braithwaite & Scott, 1991, p. 700). Taking all these factors into consideration, it is clear that neither the Value Profile nor the Conceptions of the Desirable scale is appropriate for assessing relation to authority in the present research.

Summary: Instrumentation to Assess Relation to Authority

In sum, there is a lack of appropriate assessment instruments that address the world view dimension of relation to authority. Instruments designed on the lines of the Kluckhohn model confuse this dimension with that of relation to group. Instruments that assess authoritarianism often address only one end of the polarity; one instrument that avoids that problem unduly restricts the meaning of the construct. Other scales present further difficulties in terms of construct validity or practicality of use. These considerations indicate the need for a new scale that assesses the relation to authority dimension of world view.

Assessment of Relation to Group

Several different approaches have been taken to the assessment of relation to group. These include instruments designed on the lines of the Kluckhohn model, Rokeach-type values research methods, scenarios, and other attitude-item methods.

It should be noted that two scales mentioned earlier, the Value Profile (Bales & Couch, 1969) and the Conceptions of the Desirable (Lorr, Suziedelis, & Tonesk, 1973), also contain scales addressing relation to group. The insurmountable difficulties mentioned earlier in regard to these scales precludes their further consideration here. Similarly, some instrumentation developed by Triandis and colleagues (Singelis, Triandis, Bhawuk, & Gelfand, 1995), with subscale alphas in the .67-.74 range, demonstrates insufficient internal consistency to be considered here.

Instruments Based on the Kluckhohn Model

The same considerations brought up regarding the Kluckhohn approach to relation to authority apply to relation to group. That is, the two dimensions are confused in the Kluckhohn model of world view, with the consequence that assessment instruments modeled on the Kluckhohn model are inappropriate for the assessment of relation to group. What is needed is an instrument to assess relation to group in terms of the individualist—collectivist distinction outlined above.

Rokeach-type methodologies

It might be argued that a recourse be made to Rokeach-type values research techniques to assess the individualist—collectivist distinction. A Rokeach-type instrument, such as the Value Survey (Rokeach, 1973; Schwartz, 1992) typically involves individuals sorting in rank order of personal importance values that are represented by a single word ("politeness") or a short phrase ("a world at peace"). Researchers into values have found that the individualist—collectivist distinction differentiated values for samples in 20 countries from every inhabited continent (Schwartz, 1992). That is, values assessed in the manner described seem to occupy different conceptual spaces that can be characterized as either individualist or collectivist, and these distinctions seem to be valid across many cultures (Schwartz, 1992; Schwartz & Bilsky, 1987, 1990).

However, because the individualist-collectivist distinction bridges many different value content domains (Schwartz, 1992), it is possible for the same individual to be assessed as *both* individualist *and* collectivist simultaneously, depending on the specific value domain involved. For example, an individual may be "individualist" in terms of value content areas that express openness to change (e.g., ranking highly "independent thought," "creating," and "exploring"), and yet be "collectivist" in terms of values that express self-transcendence (e.g., ranking highly "social justice" and "forgiving"). The very broadness of individualism—collectivism as it applies to general values seems to have led some prominent values researchers to abandon the distinction in terms of constructs that are more fine-

grained. (For example, compare the discussion of individualism—collectivism in Schwartz, 1992, and Schwartz & Bilsky, 1987, 1990, with the discussion of the dimensions Openness to Change—Conservation and Self-Enhancement—Self-Transcendence in Schwartz & Sagiv, 1995.) The upshot of this is that, if individualism—collectivism is to be assessed from outside the Kluckhohn model, a Rokeach-type values research model will not be appropriate as a substitute.

Individualism—Collectivism Scale (INDCOL)

Attempts have been made to assess the individualism—collectivism dimension using instruments that neither partake of the theoretical confusion of the Kluckhohn model nor use the Rokeach-type values research technique alone. Hui (1988) developed an instrument to assess individualism—collectivism separately across six contexts: spouse, parents, kin, neighbors, friends, and co-workers, each context represented by a subscale, with 8 to 11 items per subscale (63 items total). Assessing internal consistency in a bi-cultural (Chinese and American) sample of over 200 participants, Cronbach's alpha varied widely across the context subscales: .46 (spouse), .47 (friend), .58 (co-worker), .70 (neighbor), .72 (kin), .76 (parent).

There are three problems with the use of the INDCOL to assess relation to group in the present investigation. First, the scale as a whole, with 63 items, is far too long to accommodate within a multi-scale instrument package; either the other WAI scales would have to be

equally long (leading to a total number of items in the final instrument of over 360, with many more items in the development protocol), or a disproportionate number of items in the instrument package would involve relation to group. Second, three of the subscales (spouse, friend, co-worker) exhibit reliability coefficients below .60, thus exhibiting insufficient reliability for use even in exploratory research. Third, within the scales that do exhibit adequate reliability for research purposes, many of the items lack face validity, at least, in terms of addressing the construct as conceived in this project. In particular, many items lack even implicitly the notion of conflict between individual and collective goals that is at the heart of this dimension of world view. This is illustrated in the following list, with alternative items suggested to underscore the lack in the item as written:

Parent Subscale: Individualism Direction

P1. My musical interests are extremely different from my parents. [Critique: This item assesses filial similarity to parents, not relation to group. A more appropriate item: "I listen to my music even when it does not suit my parents' tastes."]

P2. In these days parents are too stringent with their kids, stunting the development of initiative. [Critique: This item assesses perceived parental strictness, or, at best, perceived *parental collectivism*. A more appropriate item: "I follow my own course rather than just follow after what my parents say."]

P5. Even if the child won the Nobel prize, the parents should not feel honored in any way. [Critique: It is difficult to relate this item to individualism—collectivism. Parental pride in or contribution to a child's achievements is irrelevant to the dimension.]

Parent Subscale: Collectivism Direction

P8. I practice the religion of my parents. [Critique: At best, this would assess conventionality—innovation. A more appropriate item: "I would continue to practice the religion of my parents even if I became interested in another religion."]

Kin Subscale: Individualism Direction

K4. I would not let my cousin use my car (if I have one). [Critique: As worded, this is more a measure of global selfishness. A more appropriate item: "If I needed to use my car for a minor personal errand, I would not use it to bring my cousin to a job interview."]

Kin Subscale: Collectivism Direction

K2. If I met a person whose last name was the same as mine, I would start wondering whether we were, at least remotely, related by blood. [Critique: This item seems more related to genealogical interest or general interest in family. A more appropriate item: "I would help someone with the same last name as mine to the best of my ability, even if I was not absolutely sure they were related to me."]

K8. I can count on my relatives for help if I find myself in any kind of trouble. [Critique: At best, this refers to perceived communal orientation of one's *relatives*, not oneself. A more appropriate item: "My relatives can always count on me for help if they find themselves in any kind of trouble."]

Neighbors Subscale: Individualism Direction

N1. I have never chatted with my neighbors about the political future of this state. [Critique: This is more a measure of willingness to discuss politics. A more appropriate item: "In an election, I vote according to what is best for me personally, rather than according to what people say is best for the community."]

N4. I am not interested in knowing what my neighbors are really like. [Critique: This item almost seems more appropriate as a measure of schizoid tendencies. A more appropriate item: "I would never try to make myself seem more like my neighbors just to please them or fit in with them."]

Neighbors Subscale: Collectivism Direction

N3. My neighbors always tell me interesting stories that have happened around them. [Critique: This item is related more to interest in the surrounding social environment. A more appropriate item: "I make time to listen to my neighbors' stories, even when I have other things I would rather do."]

Adequate internal consistency coefficients indicate that whatever a scale measures, its items measure similar things. What the coefficients do not indicate is whether the items of a scale measure what the scale is *supposed* to measure, which is more a matter of validity. Although reliability is a prerequisite of validity, it is not necessarily an indicator of validity. Such would seem to be the case here: some of the scales are internally consistent, but logical considerations suggest that they do not measure individualism—collectivism (relation to group), at least not as this dimension is conceived for the present investigation. Thus, the INDCOL is inappropriate for use in the present research.

Scenario Method

Triandis, Chen, and Chan (1998) developed a paper-and-pencil instrument in which the participant selects one of four possible choices as a response to each of 16 written scenarios, with good preliminary indications of validity. However, use of this type of instrument in a world view battery would make the best sense if all the dimensions of world view were similarly assessed. Because it was decided to use attitude item methodology in the present research, a method using scenarios was deemed inappropriate.

Individualism-Collectivism Interpersonal Assessment Inventory (ICIAI)

Matsumoto and colleagues published an instrument that assesses the individualism—collectivism dimension using attitude items: the Individual-Collectivism Interpersonal Assessment Inventory (ICIAI; Matsumoto, Weissman, Preston, Brown, & Kupperbusch, 1997). The ICIAI has two sections. In the first section, the ICIAI requires participants to rate the importance of 25 value items (e.g., "to be loyal to") in relation to four social groups (family, close friends, colleagues, and strangers) in terms of a 6-point scale. The second section of the ICIAI requires participants to rate how often they actually engage in those behaviors, using a 6-point scale. In this manner, the authors assess individualism-collectivism in multiple contexts, and in two domains (stated values and behaviors). The instrument shows impressive internal consistency (standardized item Cronbach's alpha ranging from .86 to .91) and temporal stability reliability (test-retest correlations ranging from .77 to .91).

However, these impressive achievements in reliability were made at the cost of substantial time. The authors reported that the average time to complete this scale was 30 minutes. This 30-minute period required for the administration of a single scale represents the upper limit of the amount of time it was anticipated that the 6-scale WAI should take to administer. Consequently, it was decided that it was worthwhile to develop a separate scale for the assessment of collectivism-individualism that would require less time to administer.

Summary: Instrumentation to Assess Relation to Group

In sum, there is a lack of appropriate assessment instruments that address the world view dimension of relation to group. Instruments designed on the lines of the Kluckhohn model confuse this dimension with that of relation to authority. Rokeach-type research methods address collectivism-individualism on too high a level of abstraction to be useful for our purposes. Other available instruments either are incompatible with the use of attitude-item questionnaires, take too long to administer, exhibit insufficient reliability, or do not seem focused on the actual construct of interest. These considerations indicate the need for a new scale that assesses the relation to group dimension of world view.

Assessment of Metaphysics

The assessment of metaphysical beliefs, spirituality, and religious belief has been the focus of a great deal of psychometric development effort. However, as will be seen, the resulting instruments typically miss the mark of the metaphysics dimension as it has been defined for this study.

The domain of beliefs regarding the metaphysics dimension is addressed most directly by the fields of social psychology, psychology of religion, and transpersonal psychology, which exhibit some overlap. Assessment in these areas has tended to focus on "religiosity," that is, matters such as religious orientation (i.e., the role that religion plays in the life of the individual; Allen & Spilka, 1967; Allport & Ross, 1967; Gorsuch & McPherson, 1989), religious commitment (Braithwaite &

Law, 1985), the occurrence of or openness to spiritual experiences (Braithwaite & Law, 1985; Burris & Tarpley, 1998; Hood, 1970, 1975; many examples cited in MacDonald, LeClair, Holland, Alter, & Friedman, 1995), different conceptions of spirituality (Gilgen & Cho, 1979), non-doctrinal approaches to questions of ultimate meaning in life (Yinger, 1969, 1977), and aspects of religious observance, practice, and adherence to historically orthodox doctrinal beliefs in the Judaeo-Christian tradition (Faulkner & DeJong, 1966; Stark & Glock, 1968; for belief only, see Lorr, Suziedelis, & Tonesk, 1973; Scott, 1965).

None of the constructs operationalized in the instruments mentioned above corresponds to the spiritualism—materialism bipolarity as it has been described for this study. Only two scales of all those surveyed address the dimension of interest.

General Beliefs

One factor of the General Beliefs questionnaire (Coan, 1974), described earlier, is relevant to the assessment of the metaphysics dimension. Factor 5 (Physical Determinism) is essentially defined by the following four items (Coan, 1974, pp. 110-115):

14. All events follow natural laws; therefore, we could predict everything that happens if we had enough information.

61. The world is wholly governed by physical forces such as those of gravitation and chemical changes.

88. The only intelligent way to account for man is in terms of his evolution from lower animals.

114. Every event has a cause or causes.

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These items, especially item #61, represent some aspects of a materialist point of view. However, as mentioned earlier in reference to Latting and Zundel's (1986) locus of responsibility scale, there are psychometric (and hence validity) problems with attempting to assess a bipolar construct using items reflecting only one pole; these problems involve liability regarding the potential for acquiescence response sets, and implicit difficulties with sampling the construct domain. Consequently, this factor of the General Beliefs questionnaire is inappropriate for use in the present research.

Spiritual Orientation Inventory (SOI)

The authors of the Spiritual Orientation Inventory (SOI; Elkins, Hedstrom, Hughes, Leaf, & Saunders, 1988) conceptualized spirituality as a multifaceted construct, for which the authors specified and assessed nine dimensions. One of these dimensions, assessed on the Transcendent Dimension Subscale, is connected to the "experientially based belief that there is a transcendent dimension to life" (Elkins, Hedstrom, Hughes, Leaf, & Saunders, 1988, p. 10).

At first blush, this would seem to be precisely what the spiritualist—materialist bipolarity is about. Indeed, some items of the SOI are directly on target regarding the dimension of interest (e.g., "There is a transcendent, spiritual dimension to life," Elkins, Hedstrom, Hughes, Leaf, & Saunders, 1988, p. 13).

However, two crucial problems invalidate the use of this instrument. First, none of the items of the Transcendent Dimension Subscale are scored in the opposite direction; that is, there are no items

that assess belief that the world should only be described in material terms rather than transcendent ones. This invites all the threats to validity (acquiescence response set, systematically incomplete sampling of the universe of items) mentioned above in regards to Latting and Zundel's scale for locus of responsibility. Second, the Transcendent Dimension Subscale of the SOI includes some items that focus, not on belief in a transcendent aspect of reality, but on *experience* of the transcendent (e.g., "I have had transcendent experiences in which I was overcome with a sense of awe, wonder, and reverence," Elkins, Hedstrom, Hughes, Leaf, & Saunders, 1988, p. 13). This represents a contamination of the construct. These considerations indicate that the SOI is not appropriate for use in the present research.

Summary: Instrumentation to Assess Metaphysics

In sum, there is a lack of appropriate assessment instruments that address the world view dimension of metaphysics. Most instruments used to address spiritual constructs in social psychology, the psychology of religion, or transpersonal psychology do not actually address this dimension. The General Beliefs questionnaire and the Spiritual Orientation Inventory each address only one pole of this dimension. In addition, the Spiritual Orientation Inventory includes items that focus on experience, rather than belief. These considerations indicate the need for a new scale that assesses the metaphysics dimension of world view.

Chapter Summary

This chapter first summarized three major attempts to conceptualize the world view construct. These included the theoretical contributions of Freud, F. R. Kluckhohn, and D. W. Sue.

The second part of the chapter focused on dimensions of the world view construct that were recommended as relevant for counseling and psychotherapy by Bergin, D. W. Sue, Treviño, and Triandis. These authorities, as a group, have recommended that the following dimensions of world view are relevant to counseling and psychotherapy: the dimensions of the Kluckhohn model, locus of responsibility, locus of control, beliefs about metaphysics, beliefs about epistemology, and beliefs about agency. Several of these dimensions of world view were dropped from consideration in the present study on various practical grounds. This part concluded with the selection of specific world view dimensions as the focus for the psychometric development effort in the present study, representing beliefs concerning: 1) the mutability of human nature, 2) agency, 3) locus of responsibility, 4) relation to authority, 5) relation to group, and 6) metaphysics, in terms of a spiritualist versus materialist view of reality.

The third part of the chapter described each of the dimensions of world view selected for attention in the present study (the six dimensions mentioned in the preceding sentence, plus locus of control), as they are considered in the world view literature and, very selectively, in the general psychological literature.

The fourth part of the study describes previous assessment efforts made with respect to the six world view dimensions focused

upon in the present study. More than a dozen scales were reviewed in some detail, with others mentioned in passing. It was found that the world view dimensions of interest were represented currently, if at all, by instruments that presented serious problems of reliability or construct validity.

Thus, this chapter has demonstrated that several dimensions of world view are of interest to counseling and psychotherapy, and that adequate instrumentation is not available for some of these dimensions. Consequently, there is a demonstrated need for a multi-scale instrument to assess the indicated dimensions of world view. The following chapter describes the method used to develop this instrument, as the focus of the present study.

CHAPTER III

THE METHOD

The development of the Worldview Assessment Instrument (WAI) was an iterative process. That is, a sequence of activities (item generation, data collection, data analysis, item refinement) occurred repeatedly, in whole or in part, during the instrument development process, in an attempt to follow procedures designed to "build" validity into the WAI from the beginning (Anastasi, 1986, p. 3; L. A. Clark & Watson, 1995, p. 311). This chapter first outlines the process as a whole. Then, the chapter describes the methods used and the results obtained during the various modules of the process, called Studies 1 through 5. (Chapter IV, Results, describes the results obtained during the final iteration of the instrument development cycle, Study 5.) Finally, the chapter describes some of the limitations of the survey method, and ways in which some of these limitations were addressed. A summary concludes the chapter.

Overview of Instrument Development Process

This section of the chapter describes the overall instrument development process. First, decisions that were made regarding the instrument development process are described. Second, the sequence of studies that led to the development of the WAI is outlined.

Preliminary Decisions

Before instrument development could begin, several framing decisions had to be made. One decision regarded the way in which the world view construct would be operationalized. Another decision had to be made regarding the manner of data collection. Finally, another decision concerned the way in which data would be analyzed.

Operationalization of the World View Construct: Dimensional or Categorical Model?

A basic and important decision must be made at the beginning of any attempt to operationalize a construct. This decision is necessitated by the existence of two different species of models that operationalize a construct: categorical and dimensional (L. A. Clark & Watson, 1995).

Categorical models, also known as class models, "seek to categorize individuals into qualitatively different groups" (L. A. Clark & Watson, 1995, p. 313). In psychodiagnosis, an example of an assessment instrument built on categorical lines would be the Structured Clinical Interview for DSM-IV (First, Spitzer, Gibbon. & Williams, 1997), which is closely structured after the *DSM-IV* (1994) and its often mutually-exclusive diagnostic categories. As applied to world view, categorical models define world view in terms of several mutually exclusive types. Each of these types consists of a variety of characteristics, and so is a complex description of an approach to life and reality. M. E. Miller and West's (1993) world view model is categorical, with nine world views defining mutually exclusive approaches to life. Frye's (1957) approach to literature, which has been applied to psychology (Messer, 1992; Schafer, 1976), is also a categorical

model, with its comedic, tragic, romantic, and ironic approaches to life. Wilber's (1989d/1999c; 1999b, p. 637) approach to transpersonal psychology involves a categorical model of world views, in which a dozen major approaches to reality and life can be discerned, built largely around differing notions of personal and group identity.

Dimensional models, also known as quantitative models, "differentiate individuals with respect to degree or level of the target construct" (L. A. Clark & Watson, 1995, p. 313). In psychodiagnosis, one instrument following dimensional lines is the Minnesota Multiphasic Personality Inventory (Graham, 2000), which produces a profile characterizing an individual in terms of ratings on several different dimensions. As applied to world view, dimensional models define world view in terms of one or more dimensions. For example, Wrightsman (1992) assessed world views regarding human nature in terms of dimensions of beliefs about issues such as Altruism.

There is at least one intermediate or mixed case among the models reviewed for the present study. For example, the model used by the World View Project (Holm & Björkqvist, 1996) is categorical, with 14 world views (e.g., Neohinduism, socialism, Green values, magic) that can be used in dimensional ways (i.e., to assess, for example, relative degree of Green values). However, even when used dimensionally, each "dimension" (e.g., socialism) is itself a multi-dimensional construct. Consequently, it was decided to consider the model used by the World View Project as a categorical model for the purposes of the present study.

One hallmark of a dimensional model is that the use of one such model does not rule out the incorporation of another, different dimensional model. That is, one could add the dimensions used by Wrightsman (1992) to the dimensions used by Ibrahim and Kahn (1984, 1987) without doing violence to the concepts of either. On the other hand, categorical models present insuperable difficulties in this regard. For example, each of Frye's approaches contains so much complex detail that it would seem impossibly difficult to graft Frye's model (Messer, 1992; Schafer, 1976) onto M. E. Miller and West's (1993).

Thus, one advantage of dimensional models in assessment is that an instrument developed on a dimensional model is easy to combine with other such instruments (which may assess very different dimensions of world view) in the creation of a larger battery. In addition, this author foresaw the use of the WAI, not in terms of making hard and fast decisions about how to categorize individuals, but rather in terms of investigating the relationships among different dimensions of world view, and their relation to other dimensional measures, such as perceived wellness, or satisfaction with the outcome of psychotherapy and counseling. Dimensional models, which by definition allow for at least an ordinal level of measurement, thus permit more sophisticated statistical analyses in assessing strength of association (e.g., to wellness or satisfaction) than do categorical models of world view, which allow only for a nominal level of measurement. These considerations led to the decision to use a dimensional model for the assessment of world view in the present research.

Manner of Data Collection

Having decided upon a dimensional approach to operationalizing world view, the matter of the overall manner of data collection arose. Some early world view researchers used a forced-choice response format, presenting all stimulus questions and possible responses to participants orally in person (Kluckhohn & Strodtbeck, 1961/1973, p. 106). Other investigators have used a forced-choice response format presented to participants on printed questionnaires (Szapocznik, Scopetta, Aranalde, & Kurtines, 1978; Triandis, Chen, & Chan, 1998). Some researchers have used a Likert-type response format, presented to participants on printed questionnaires (Hui, 1988; Ibrahim & Kahn, 1984, 1987). Outside of world view research, in at least one setting, attitudinal research is conducted using a Likert-type response format, presenting stimulus questions and response options to participants both in writing and orally in a telephone conversation (K. Hurley, personal communication, March 16, 1999); world view research could be pursued in the same way. Some worldview researchers have advocated the use of semi-structured in-person interviews with participants to assess world view (Berg-Cross & Chinen, 1995; Ibrahim, Ohnishi, & Wilson, 1994).

It was decided to conduct the present research through the use of written questionnaires using a Likert-type response scale. Written questionnaires allow for flexibility and efficiency in administration; questionnaires can be distributed and collected in groups, and yet can be completed at a time of the participant's convenience. Likert-type response scales permit more statistical variation in response than

forced-choice response scales allow, making for more readily interpretable statistical analysis. Most contemporary cross-cultural values research uses this type of questionnaire (P. B. Smith & S. Schwartz, 1997, p. 81).

It is true that Likert-type response scales present with some conceptual difficulties. Loevinger (cited in L. A. Clark & Watson, 1995) has declared that researchers are often not justified in assuming equal interval scaling with Likert-type scales; in turn, lack of equal interval measurement violates the assumptions underlying many statistical procedures. However, authorities do not all agree on this issue. For example, some researchers have noted that "[Likert] scales would generally be considered interval or quasi-interval" (Floyd & Widaman, 1995, p. 288). In addition, Likert-type scales use an ordinal level of measurement, and the mathematical procedure underlying factor analysis—Pearson correlation—is measured on an ordinal scale rather than an interval one (Weinberg & Goldberg, 1990, p. 119). In the absence of definitive evidence regarding the inappropriateness of Likert-type data, and in the face of many research studies regarding world view that have used this type of data (e.g., Berkow, Richmond, & Page, 1994; Chen, Brockner, & Katz, 1998; Chu-Richardson, 1989; Cunningham-Warburton, 1988; Furn, 1987; Hickson, Christie, & Shmukler, 1991; Hui, 1988; Kwan, Sodowsky, & Ihle, 1994; Mahalik, Worthington, & Crump, 1999; Mau & Pope-Davis, 1993; Sodowsky, Maguire, Johnson, Ngumba, & Kohles, 1994), it was decided to use Likert-type response scales in the present research.

It was decided to use an odd number of response options. However, because there is always the possibility that a central option labelled "Cannot Say" can be construed as uncertainty about item meaning rather than as a midrange rating (L. A. Clark & Watson, 1995), it was decided to have a additional response option aside from the Likert-type continuum: "??", used to indicated uncertainty about the meaning of the item.

Data Analysis Choices

In order to form scales from the item pool, it was decided to use exploratory principal axis factor analysis using Varimax rotation to analyze participant responses to individual items. Each aspect of this choice can be supported in terms of psychometric theory and its practice.

Factor analysis is a widely used approach to construct validation of instruments (Crocker & Algina, 1986; P. Kline, 1986; Nunnally & Bernstein, 1994; Rust & Golombok, 1989). It has been argued that factor structure "is probably the most important evidence of a theory-based, multiscale test's construct validity" (Kaufman & Kaufman, cited in Cicchetti, 1994, p. 288). Although alternatives to factor analysis exist for scale construction, notably multidimensional scaling (Nunnally & Bernstein, 1994), factor analysis appears to be the preferred method for the construction of attitudinal scales such as the WAI, as indicated by an informal survey of recent volumes of *Psychological Assessment*, the *Journal of Counseling Psychology*, and the *Journal of Personality and Social Psychology*. This may be the case because multidimensional

scaling is most appropriate when one is making no assumptions about what underlying dimensions exist in a domain (Heppner et al., 1994, p. 228), which is often not the case in attitudinal research, including the present research.

Factor analysis of item-score-level data (as opposed to scale-score-level data) has been severely criticized by some psychometric authorities (Nunnally & Bernstein, 1994); one objection is that the use of Likert-type data unavoidably introduces problems with range restriction. Here, again, authorities do not all agree. Several psychometric authorities recommend the practice of applying factor analysis to item-score-level data (Crocker & Algina, 1986; Floyd & Widaman, 1995; P. Kline, 1986; Rust & Golombok, 1989). It is certainly the case that item-score-level factor analysis is frequently used in the development of scales to assess attitudes and beliefs, particularly in counseling psychology (e.g., Adams, Bezner, & Steinhardt, 1997; Barber, Foltz, & Weinryb, 1998; Benishek, 1996; Burris & Tarpley, 1998; Dyer & Osborne, 1998; Elliott & Wexler, 1994; Fischer, Tokar, & Serna, 1998; Helweg-Larsen & Collins, 1994; Hood, 1975; Ibrahim & Owen, 1994; Skowron & Friedlander, 1998; Stiles, Reynolds, et al., 1994; Van Alboom, 1996). In the absence of definitive empirical demonstration that item-score-level factor analysis is inappropriate, and in the presence of many studies using this technique, it was decided to implement item-score-level factor analysis in the present research.

The exploratory factor analysis model has been used successfully to develop attitudinal scales (e.g., Barber, Foltz, & Weinryb, 1998; Fischer, Tokar, & Serna, 1998). Likert-type data are often better suited

for use in exploratory factor analysis rather than confirmatory factor analysis, even though Likert-type data may not be normally distributed (Floyd & Widaman, 1995). Although some recommend the use of confirmatory factor analysis in scale development, the utility of this procedure in estimating construct validity has been called into question (Meier, cited in Haynes, Nelson, & Blaine, 1999, p. 132). It has been noted:

> Hypothesis testing using a confirmatory procedure ... constitutes a less stringent test of the hypothesized factor structure than does performing an exploratory analysis and then relating those results to a hypothesis. (Tinsley & Tinsley, 1987, p. 419)

In the case of the present research, the "hypothesis" is an implicit one: that is, that the beliefs assessed by items from the six scales refer to six different dimensions of world view. This implicit hypothesis was addressed in the scale construction process; however, as is usually the case in a psychometric study, formal testing of this implicit hypothesis was not performed.

Principal axis factoring, although not without its detractors (Horm & Tam, 1996), has been used successfully to develop and evaluate attitudinal and clinical scales (e.g., Adams, Bezner, & Steinhardt, 1997; Benishek, 1996; Dyer & Osborne, 1998; Floyd & Widaman, 1995; Garson, 1998; Van Alboom, 1996). This procedure is popular with psychometric researchers because principal axis factoring, as opposed to other methods, determines the smallest number of factors needed to account for the observed common variance within a set of variables (Garson, 1998). Principal axis factoring is a form of

common factor analysis, and is also known as principal factor analysis (Garson, 1998).

Among many possible methods of rotation in factor analysis, Varimax rotation presents the advantage that it results in the smallest number of variables that have high loadings on each given factor (Garson, 1998). The use of Varimax rotation is also indicated for the present research because, as an orthogonal method, it is more suited than, for example, Oblimin rotation for the construction of independent indices of dimensions of attitudes (Hanneman, 1995).

Sequence of the Development Process

Five studies were conducted as part of the instrument development process for the WAI. Two of these studies involved item generation; all involved participant recruitment, procedures for data collection, data analysis, and the use of results to make decisions about instrument development. The five studies are summarized in Table 1. The number of items per scale appearing in each of the instruments used in the dissertation research is recounted in Table 2. Each of the five studies is described in general terms immediately following Table 1. Each study is described in detail in the next part of this chapter.

In Study 1, items were generated for each of the six scales under development. The purpose of Study 1 was to gather data about the effect of presenting items in randomized order versus presenting items as sorted by scale. On the basis of the results obtained in Study 1, it was decided to present items in randomized order.

Table 1

The Five Studies Conducted During the Dissertation Research

Study	Purpose	Instrument	Total Participants	Usable Protocols
1	Decide presentation format.	DV1	23	21
2	Winnow items.	DV2	29	29
3	Construct scales.	DV3	328	325
4	Winnow items.	DV4	23	23
5	Construct scales.	DV5	306	291

Table 2

Number of Items Per Scale Across Instruments Used in Dissertation

Scale	Number of Items Per Scale					
	DV1	DV2	DV3	DV4	DV5	WAI
Metaphysics	20	20	12	32	22	10
Agency	20	20	12	33	22	8
Locus of Responsibility	15	15	12	38	22	14
Relation to Group	20	20	13	32	24	12
Relation to Authority	20	20	12	32	22	6
Mutability	20	20	13	36	22	4
Subtotal	115	115	74	203	134	54
Locus of Control	10	10	10	34	16	—
Total	125	125	84	237	150	54

The purpose of Study 2 was to eliminate some items so as to have fewer items to administer to a large number of people in Study 3.

The purpose of Study 3 was to construct the scales of the instrument in final form. The development instrument applied in this study used a relatively small number of items per scale, and a 5-point Likert-type response scale. Because internal consistency for the resulting scales was disappointing, it was decided to engage in another cycle of the instrument development process.

To improve internal consistency in the scales under development, many new items were generated, and existing items were refined. The purpose of Study 4 was to eliminate some of these items so as to administer fewer items to a large number of people in Study 5.

The purpose of Study 5 was to construct the scales of the instrument in their final form, in such a way that each scale would show substantially greater internal consistency than was evident in the corresponding scales constructed in Study 3. The method used in Study 5 is reported later in this chapter; the results of Study 5 comprise the following chapter.

The role of the Locus of Control scale used in the present study bears further explanation. The present study was not concerned with developing a locus of control measure. However, it was important to assess the degree to which the scales developed for the WAI (especially the Locus of Responsibility scale) overlapped with the domain of locus of control. Consequently, a measure of locus of control was included in each of the studies in the present research, its items interspersed with

the other items of the Development Version instrument in use in each study. The items of the measure of locus of control were selected from Rotter's (1966) I-E scale, adapted to maintain consistent format with the other items in the study. (I.e., instead of presenting paired internal and external items in a forced-choice format, for example, an internal item was presented in a Likert-type format.) Although the same ten items taken from the I-E scale were used in Studies 1 through 3, in order to increase internal consistency reliability, in Study 4 a much larger number of Rotter's original items were included in the Development Version instrument. These items were then submitted to the same item selection process as other items. The five items surviving the item selection process were entered into factor analysis and correlated with the items of the WAI (with the results of these analyses reported in Chapter V).

Study 1

Study 1 was conducted to address the matter of item presentation format. Early in the present research, it was decided to develop multiple scales simultaneously, using a single presentation to each participant, rather than develop each scale separately. This kind of simultaneous multiple-scale development procedure is to be preferred when factor analysis is used in scale development, because of the algebraic procedures that underlie factor analysis (P. Kline, 1994, p. 139).

However, there are two fundamentally different ways to present items from multiple scales to participants. One way is to present items from different scales mixed together, as in the MMPI-II and many other

multi-scale personality assessment instruments. The other is to present items sorted by scale, as is done in the WAIS-III and many other multi-scale measures of intellectual ability.

The choice of sorted versus mixed formats is an important one because of the possible disadvantages inherent in each format. Presenting items in a sorted format creates the potential for cueing effects. This would occur if participants, realizing that they are responding to items about a single topic, impose an artificial consistency upon their responses. It is know that a participant's responses to an item are powerfully affected by the content of adjacent items (N. Schwarz, 1999, p. 96). It seems reasonable to think that an extreme version of this effect would be seen when adjacent items all address a given topic, as in a sorted presentation. Such cueing effects would present serious validity problems in the assessment of beliefs and attitudes.

On the other hand, presenting items in a mixed format may incur an increased cost in time required for administration. This would occur if participants needed a substantial amount of mental processing time to "switch gears," as it were, in considering items regarding different topics.

With these concerns in mind, Study 1 presented each participant with one of two types of questionnaires. One type had items sorted into categories, and the other type had items in a randomly mixed format. It was decided in advance that if results demonstrated that the randomly mixed format required substantially more time than the

sorted format, the sorted format would be used; otherwise, the mixed format would be used in order to avoid cueing effects.

Participants

Participants were recruited from a class of graduate students in the Department of Applied Psychology at NYU, as a sample of convenience. Demographic data were not collected.

Instrument

Development Versions 1.S and 1.M

Overall Structure

Development Version 1 of the instrument was administered to each participant in one of two versions. In one version (Development Version 1.S), items were sorted by category, and each category was given a descriptive heading (e.g., "Attitudes about Groups," "Attitudes about Leadership and Authority"). In the other version (Development Version 1.M), items were presented in one continuous list, with items from various scales mixed in random order.

For each version of the instrument, five of the scales under development (assessing beliefs about mutability, agency, relation to authority, relation to group, and metaphysics) contained 20 items each. The remaining scale under development (assessing locus of responsibility) contained 15 items. In addition, the instrument included 10 items derived from Rotter's (1966) locus of control scale. Thus, each version of the instrument included a total of 125 items.

Item Generation

Items were generated for the six scales under development by using two methods: a rational or theoretical approach (Butcher, 1999, p. 158; L. A. Clark & Watson, 1995, p. 310), and a modest population sampling approach (Haynes, Nelson, & Blaine, 1999, p. 143). Each of these methods is described below.

In the rational or theoretical approach, a survey of the major world view literature in psychology, anthropology, and philosophy was conducted (see works referenced in Chapter II and Appendix A). Based on this survey, brief descriptions were written of the poles of each bipolar world view dimension (L. A. Clark & Watson, 1995, p. 310). Based on these descriptions, items were written that expressed each pole of each dimension in terms of abstract principles. Some examples of these items are given in Table 3, below.

As the second method of item generation, six doctoral students in counseling psychology were interviewed regarding suggestions for items, in a procedure meant to approximate, in a modest way, the population sampling approach to strengthening content validity (Haynes, Nelson, & Blaine, 1999, p. 143). This group possessed a familiarity with a variety of cultures: one was from Eastern Asia, one was related by marriage to in-laws in Southeast Asia, one was a Native American, one was a Jewish American, one was an Italian-American, and one was a Northern European-American.

Table 3

Selected Development Version 1 Items Reflecting Abstract Principles

Dimension	Pole	Sample Item
Mutability	Changeable	Human nature is changeable.
	Permanent	A person's character cannot be altered, tampered with, or changed.
Agency	Voluntarist	People really have 'free will' in making choices for their lives.
	Determinist	The feeling that we have personal choice is actually just an illusion.
Relation to Group	Individual	My first allegiance is to myself, rather than to anyone or anything else.
	Communal	My neighborhood's needs come before my own.[a]
Relation to Authority	Lateral	Authority should be shared, rather than concentrated in the hands of a few leaders.
	Linear	In a group, the leadership should make the important decisions.
Metaphysics	Materialist	There is only matter; there is no substance such as 'spirit.'
	Spiritualist	There is a real spiritual realm that affects our life in this world.

[a] It proved difficult to make truly abstract statements of the Communal position. Consequently, statements were created that referred to specific communities, such as neighborhood, country, family.

The suggestions received from those interviewed were then reviewed by this researcher and, in many cases, revised in order to develop items for the scales under development. Although records of these discussions have not been retained, approximately one-third of the 125 items on Development Versions 1.S and 1.M were developed from interviewee's suggestions. The remaining items were developed on the basis of abstract analysis, as described earlier.

Response Scale

Participants were presented with six alternatives to use in responding to all items, with all six alternatives being printed next to the text of each item. The first alternative was "??," to indicate that the participant did not understand the item. The next five alternatives constituted a continuum, an ordered 5-point Likert-type response scale: disagree strongly, disagree a bit, cannot say, agree a bit, agree strongly.

Scoring

Because the point at issue in Study 1 was time to complete the questionnaire, participants' responses to individual items were not scored. Participants were asked to indicate the clock times for when they began and concluded the questionnaire. From this data, number of minutes to complete each questionnaire was calculated.

Instructions

All participants received the following printed instructions: "This is a survey of attitudes. There are no right or wrong answers. The best answer is what you feel is true for you. Please respond to *each* of the items by CIRCLING *one and only one* of the following:

??	Disagree Strongly	Disagree A Bit	Cannot Say	Agree A Bit	Agree Strongly

Mark "??" if you *do not understand* what the item means. Mark "Cannot Say" if you cannot decide whether you agree or disagree with the item. Please try to use the "Cannot Say" response as little as possible. Please respond as quickly as possible to each item. Don't think a lot about each item — what first comes to mind is how you should respond. This is *not* a test of how quickly people can respond. However, we are interested in how long people take to complete this survey at a normal pace. So, please take the survey at one sitting, and write here the time on the clock when you *begin* the survey: _____. Write here the time on the clock when you *end* the survey: _____."

Procedure

The class was addressed at the beginning of class time with the permission of the instructor. The researcher identified himself as a doctoral candidate in the counseling psychology program at New York University, conducting dissertation research. He indicated very briefly that this was a study of attitudes, that participation was voluntary, that the questionnaire was anonymous, that all class members would receive questionnaires but that it was permitted to hand in blank questionnaires, and that neither the class instructor nor the researcher

would know who participated in the study and who did not. Those who wished to receive information about the findings of the study were encouraged to leave their name and address on a separate piece of paper, regardless of whether they chose to participate in the study. Questionnaires were distributed to all members of the class, and were collected at the beginning of the following class session.

Data Analysis and Results

Protocols were obtained from 23 participants, indicating a response rate of about two-thirds of all class members. Two participants responded to instrument items but did not indicate the requested data on time for completion, yielding a total of 21 usable protocols.

A t-test was conducted to assess the significance of the difference in time for completion between the mixed-presentation group ($n = 12$) and the sorted-presentation group ($n = 9$). Mean time to complete the protocol in minutes was very similar for each group (mixed-presentation group $M = 23.4$ minutes, $SD = 13.8$, versus sorted-presentation group $M = 23.6$ minutes, $SD = 12.5$). The difference between group means was not statistically significant (two-tailed $t(19) = -0.024$, $p = .9813$).

Decision

It was concluded that the sorted format did not result in a time savings for protocol completion. There being no time advantage to the

sorted format, it was decided to present the instrument items in remaining studies with items randomly mixed.

Study 2

Development Version 1, used in Study 1, contained 125 items. It was decided to conduct another study to reduce the number of items presented to participants by approximately one-third.

Participants

Participants were recruited from a class of graduate students within the Department of Teaching and Learning in the School of Education at NYU, as a sample of convenience. Demographic data were not collected.

Instruments

Development Version 2

The overall structure, response scale, and instructions for Development Version 2 were identical with Development Version 1.M, the mixed-presentation protocol used in Study 1. Some items were reworded for clarity. Thus, in Development Version 2, five of the scales under development (assessing beliefs about mutability, agency, relation to authority, relation to group, and metaphysics) contained 20 items each. The remaining scale under development (assessing locus of responsibility) contained 15 items. In addition, the instrument included 10 items derived from Rotter's (1966) locus of control scale. Thus, Development Version 2 included a total of 125 items.

The use of a fully-worded response scale deserves comment. It has been found that the use of numerical rating response scales leads participants to make inferences about the unipolar or bipolar nature of the dimension that underlies the items on an opinion protocol (N. Schwarz, 1999, p. 96). It was hoped that the use of a response scale that approximates natural language would avoid this kind of cueing effect.

Scoring

Each of the six scales under development, as well as Rotter's (1966) locus of control scale, is bipolar in nature. For each of these scales, one pole was randomly chosen to have agreement with its items "score high," such that a participant response of "agree strongly" was assigned a score of 5, a score of "disagree strongly" was assigned a score of 1, and so forth. For each scale, the opposite pole was then reverse scored, such that a participant response of "agree strongly" was assigned a score of 1, a score of "disagree strongly" was assigned a score of 5, and so forth. Items left blank or marked "??" (which were few in number) were assigned an intermediate score of 3.

Marlowe-Crowne Social-Desirability Scale

Participants also received the Marlowe-Crowne Social-Desirability Scale (Crowne & Marlowe, 1964, pp. 23-24). This scale assesses the tendency to respond in a socially desirable fashion.

Procedure

The procedure used was identical to that of Study 1.

Data Analysis and Decisions

Questionnaires were obtained from 29 participants, indicating a response rate of approximately two-thirds of all class members.

As the first step in analysis, all items were appropriately scored (forward and reverse), and scale totals were calculated. Subsequent analyses were performed on these adjusted scores.

Response frequency distributions were calculated for all items, and adjusted item-total correlations were calculated for each item in relation to its scale. Items were dropped if over 40% of respondents used one of the two extreme response categories ("Disagree Strongly" or "Agree Strongly"). An item was dropped if the adjusted item-total correlation between that item and its scale was below .25. Exceptions were made to include a few items despite meeting exclusionary criteria, in order to test participant responses to these items with a larger sample. Items drawn from Rotter's (1966) locus of control scale were not subject to exclusion.

Correlations were calculated for each item score and total score on the Marlowe-Crowne Social Desirability Scale. In no instance did the observed correlation account for as much as 10% of shared variance. No item exclusions were made on this basis.

Results

The result of Study 2 was the exclusion of 41 items from the original item set of 125. The remaining 84 items were included in Development Version 3, used in Study 3, described below.

Study 3

Study 3 was an attempt to develop a final form of the instrument. As will be seen, concerns about internal consistency led to a decision to revise the instrument further and gather more data in Studies 4 and 5.

Participants

Participants included a wide variety of adults and young adults, as illustrated in Table 4.

Instrument

Development Version 3

Development Version 3 consisted of 84 items retained after the analyses conducted in Study 2, with some alterations to item content. This version included 74 items for the six scales under development, and 10 items derived from Rotter's (1966) locus of control scale. Each of the scales under development had 12 or 13 items. Participants used the same five-point Likert-type response format used in Studies 1 and 2. Scoring and instructions were identical with those used in Study 2.

Table 4

Sources for and Description of Participants in Study 3 (N = 328)

Source and Description of Participants	n	% of Sample
Montana State University—Billings, Department of Psychology: undergraduate students.	98	29.9
Southern Methodist University (Texas), Department of Psychology: undergraduate students.	65	19.8
NYU School of Education, Department of Applied Psychology: master's degree students.	57	17.4
New York Hospital-Cornell Medical Center: staff physical therapists.	40	12.2
NYU School of Education, Department of Teaching and Learning: master's and doctoral degree students.	40	12.2
Washington, DC: adults at humanities symposium.	17	5.2
City College of New York: undergraduate students.	11	3.4

Procedure

Data collection for Study 3 took place from November 1994 to July 1996. The procedure used was identical to that used in Studies 1 and 2, with the exception that data were collected in some cases by associates of this researcher, acting under his instruction.

Data Analysis and Results

Data are unavailable concerning the proportion of those approached in each setting who chose to participate. A total of 328

participants submitted protocols. Of this number, 3 protocols were rejected because participants had skipped one or more pages of items. Thus, a total of 325 usable protocols were collected.

Similar to the data analysis in Study 2, items were appropriately scored (forward and reverse). Items marked "??" (which were few in number) were recoded to indicate responses of "Can't Say." Subsequent analyses were performed on these adjusted scores.

Selected items were deleted from each of the scales under development on the basis of low corrected item-total correlations, or heavily skewed response distributions. In addition, items were deleted on the basis of failure to load significantly (absolute value loading of .30 or greater) on the appropriate factor in an item-level factor analysis, or loading significantly on an inappropriate factor in an item-level factor analysis. The resulting version of the instrument (i.e., what would have been the final version of the WAI, if the development effort had concluded here) had 58 items. Each of the scales under development contained 8 or 9 items. The reliability of each scale was assessed by calculating Cronbach's alpha. The resulting internal consistency coefficients are reported in Table 5.

Authorities differ on standards regarding what is acceptable in terms of internal consistency in a psychometric instrument. By most accepted standards, however, most of the scales developed during Study 3 were unacceptable.

The strictest standard has been set by Nunnally and Bernstein (1994, p. 265), who declared that, for research involving the comparison of groups, a measure with an internal consistency coefficient of .80 is

"adequate." By this standard, only the Metaphysics scale possesses sufficient internal consistency reliability to be considered adequate.

Table 5

Internal Consistency for Scales Developed in Study 3 ($N = 325$)

Scale	Cronbach's Alpha
Mutability	.50
Agency	.65
Locus of Responsibility	.71
Relation to Authority	.54
Relation to Group	.67
Metaphysics	.88

A more articulated stance was taken by Cicchetti (1994), who described ranges for the "level of clinical significance" (p. 286) of psychological assessment instruments based on their degree of internal consistency. By Cicchetti's standards, the Metaphysics scale has a "good" level of clinical significance, the Locus of Responsibility scale has a "fair" level of clinical significance, and the remaining four scales have "unacceptable" levels of clinical significance.

Decision

It was decided that the scales developed during Study 3 were, as a group, unacceptable in terms of internal consistency reliability. Consequently, it was decided to take several steps to create scales with significantly higher levels of internal consistency. These steps are described below in relation to Study 4.

Study 4

The scales derived during Study 3 were a disappointment in terms of internal consistency reliability. Two major steps were taken in Study 4 to increase internal consistency. First, many new items were generated for each of the scales under development. This was done because, in general, reliability increases with scale length (Crocker & Algina, 1986; Nunnally & Bernstein, 1994). Second, the number of points available in the response scale was increased. This was done because, in general, reliability increases with an increase in the number of points on a Likert-type response scale, up to 7 points, after which diminishing returns are seen for increasing the number of response points (P. Kline, 1986, p. 114).

Efforts at item generation resulted in a large item pool (237 items). For practical reasons, it was thought best to winnow this item pool before submitting the protocol to hundreds of participants. Consequently, Study 4 focused on presenting the full item pool and a revised response format to a relatively small number of participants. Adjusted item-total correlations were then calculated, and on this basis the item pool was cut by about one-third.

Table 6

Demographics of Participants in Study 4 ($N = 23$)[a]

Variable	Value	n	%
Gender	Female	16	69.6
	Male	7	30.4
Age	<20	2	9.5
	20-29	12	57.1
	30-39	1	4.8
	40-49	5	23.8
	50-59	1	4.8
Education	Some college	4	17.4
	BA	1	4.3
	Some graduate school	4	17.4
	Master's	13	56.5
	Doctorate	1	4.3
Race[b]	Asian	2	11.1
	Black	1	5.6
	White	14	77.8
	Multiracial	1	5.6

(table continues)

Table 6 (continued)

Variable	Value	n	%
Ethnicity[b]	Hispanic	3	14.3
	Non-Hispanic	15	71.4
	Multiethnic[c]	3	14.3

[a]Not all participants responded to all items. Twenty-one participants (91% of total sample submitting valid protocols) responded to the age item, 18 (78%) to the census race item, and 21 (91%) to the ethnicity item.

[b]Racial and ethnic categories suggested by Root (1996b, pp. 415-516).

[c]Parents of Hispanic and non-Hispanic origin.

Participants

Participants were sought who would assure the researcher that they would respond to all 237 items in the protocol. This sample of convenience contained 23 participants, primarily psychotherapists and graduate students. The modal participant was a 28-year-old White non-Hispanic female with a master's degree. Median age was 28 years, with a range of 18 to 59 years. The sample is described in Table 6.

Instruments

Development Version 4

Overall Structure

Development Version 4 consisted of 237 items. These items included 203 items for the six scales under development, and 34 items derived from Rotter's (1966) locus of control scale. The six scales under development each had from 32 to 38 items.

Item Development

Development Version 4 included the items which showed the highest adjusted item-total correlations in the analyses performed during Study 3; sometimes these items were reworded for further simplicity and clarity, based on written comments solicited from participants in Studies 1 through 3.

In addition, new items were generated for the instrument through the use of domain-specific analysis. That is, an attempt was made to generate items to reflect how each pole of each dimension would be reflected in each of several domains. These domains included: family and home; neighborhood and peer group; school; work; politics and social issues; and, the faith community.

Although it was not possible to generate items in each of these domains for each pole of every dimension, the use of these multiple domains made it possible to depict some of the rich variety of ways in which world views affect daily life. Some examples of how these domains were expressed in the items are illustrated in Table 7.

<u>Response Scale</u>

Participants were presented with 8 alternatives to use in responding to each item, with all 8 alternatives being printed next to the text of each item. The first 7 alternatives constituted a continuum, an ordered 7-point Likert-type response scale: disagree strongly, disagree moderately, disagree a bit, cannot say, agree a bit, agree moderately, and agree strongly. The last alternative was "??," used to indicate that the participant did not understand the item.

Table 7

<u>Selected Development Version 4 Items Reflecting Different Life Domains</u>

Domain	Dimension/ Pole	Sample Item
Family and home	Relation to Authority/ Lateral	At home, important decisions should be made by the parents and children together.
	Mutability/ Permanent	No matter how children are raised, it does not change their basic personalities.
	Relation to Group/ Individualist	I value my own freedom above even my family relationships.

(table continues)

Table 7. *(continued)*

Domain	Dimension/ Pole	Sample Item
Neighbor- hood and peer group	Relation to Authority/ Lateral	In a club, important decisions should be made by the members as a whole, not just by the officers.
	Agency/ Voluntarist	No matter how long you know someone, that person will still act in ways that surprise you at least once in a while.
	Mutability/ Permanent	Even a lot of bad friends cannot change a basically good child for long.
	Metaphysics/ Spirituality	Some people possess actual spiritual powers like healing and being able to foresee the future.
	Metaphysics/ Materialist	People who say they are receiving messages from spirits are either lying, gullible, or mentally ill.
	Relation to Group/ Collectivist	In team sports, it is better to contribute to the overall performance of the team rather than to be an outstanding individual player.
School	Relation to Authority/ Linear	In a classroom, lectures are better than discussions.
	Mutability/ Changeable	A great teacher could improve someone's behavior for life.
	Relation to Group/ Individualist	At school, it is better to spend more effort on individual projects rather than group projects.

Table 7. *(continued)*

Domain	Dimension/ Pole	Sample Item
Work	Relation to Authority/ Linear	At work, managers should make decisions for the workers to follow, rather than discussing them along with the staff.
	Agency/ Voluntarist	People decide to have good work habits; it is not just that they were taught to have them.
	Mutability/ Changeable	A strict boss could make a basically lazy person into someone who is very disciplined, even after this person leaves the job.
	Relation to Group/ Individualist	At a job, the most important thing is setting myself up for promotion or for a better next job.
Politics and social issues	Relation to Authority/ Lateral	In local politics, the City Council should have more decision-making power than the Mayor.
	Agency/ Determinist	Whether a person is honest or criminal is entirely because of what this person has learned from family and friends.
	Mutability/ Permanent	Criminals cannot be rehabilitated.
	Relation to Group/ Collectivist	I vote for what is best for the community as a whole, rather than what is best for me personally.

Table 7. *(continued)*

Domain	Dimension/ Pole	Sample Item
Faith community	Relation to Authority/ Linear	Important spiritual matters should be decided by the people at the top (like the leading nun, rabbi, minister, priest, imam, monk, or so forth), rather than discussed with the community.
	Mutability/ Permanent	No institution—no school, religion, or military training—really changes the kind of person that someone is at heart.
	Relation to Group/ Collectivist	I would donate my recreational spending money for one month if the head of my religious congregation asked for a donation for necessary repairs to our house of worship.

Scoring

For each scale, one pole was randomly chosen to have agreement with its items "score high," such that a participant response of "agree strongly" was assigned a score of 7, a score of "disagree strongly" was assigned a score of 1, and so forth. For each scale, the opposite pole was then reverse scored, such that a participant response of "agree strongly" was assigned a score of 1, a score of "disagree strongly" was assigned a score of 7, and so forth. Items left blank or marked "?" (which were relatively few in number) were assigned an intermediate score of 4.

Instructions

Each participant received the following printed instructions: "This is a survey of attitudes. There are no right or wrong answers. The best answer is what you feel is true for you. Please respond to *each* of the items by CIRCLING *one and only one* of the following:

Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??

Mark "??" if you *do not understand* what the item means. Mark "Cannot Say" if you cannot decide whether you agree or disagree with the item. Please try to use the "Cannot Say" response as little as possible. Please respond as quickly as possible to each item. Don't think a lot about each item — what first comes to mind is how you should respond. Please work alone on this survey."

Demographic Questionnaire

On a demographic questionnaire, each participant was asked to indicate gender, age, level of education, occupation, the languages spoken in the home, race and ethnicity, and religion. Responses were made by filling in blanks or by selecting from a set of options. In addition, participants were invited to comment upon the items of Development Version 4 or the Demographic Questionnaire.

Procedure

The researcher approached individuals whom he knew, and indicated that this questionnaire was a part of his dissertation research. He indicated very briefly that this was a study of attitudes, that participation was voluntary, and that the questionnaire was

anonymous. Those who wished to receive information about the findings of the study were encouraged to leave their name and address on a separate piece of paper, regardless of whether they chose to participate in the study. Questionnaires were distributed and participants filled them out at their leisure, returning them to the researcher at a time of their convenience. Of 24 individuals approached by the researcher, 23 agreed to complete the protocol, yielding a 96% response rate.

Data Analysis and Decisions

Response frequency distributions were calculated for all items, and adjusted item-total correlations were calculated for each item within each scale. Items were dropped if over 40% of respondents used one of the two extreme response categories ("Disagree Strongly" or "Agree Strongly"), in order to avoid the psychometric difficulties created by items that are essentially dichotomous or show little variability (P. Kline, 1994, p. 126). An item was dropped if the adjusted item-total correlation between that item and its scale was below .25. Exceptions were made to include a few items despite meeting exclusionary criteria, to test participant responses to these items with a larger sample.

Results

The result of Study 4 was the exclusion of 87 items from the original item set of 237. As shown in Table 2, each scale (including the Locus of Control scale) showed a drastic reduction, based on the

exclusionary criteria above, in the number of items retained between Development Versions 4 and 5. The remaining 150 items were included in Development Version 5, used in Study 5.

Study 5

The purpose of Study 5 was to construct the scales of the instrument in their final form, in such a way that each scale would show substantially greater internal consistency than was evident in the corresponding scales constructed in Study 3. In contrast to the report of the Studies 1 through 4, the results of Study 5 are reported in Chapter IV (Results).

Participants

It proved convenient to survey adults who were enrolled in programs of undergraduate or graduate study, although many participants were non-student adults. An attempt was made to obtain a sample that exhibited geographic and ethnic diversity. Ultimately, participants were recruited in substantial numbers from universities and colleges in New York City, Montana, and Texas; smaller numbers were recruited from among the professional staff of a hospital in New York City, and from postal workers in Philadelphia. A sample size of around 300 was sought, in keeping with the suggestion of researchers that sample sizes larger than that do not substantially change the outcome of a factor analysis (Tinsley & Tinsley, 1987, pp. 415-416). A detailed description of the sample is given in Chapter IV, Results.

Instruments

Development Version 5

Study 5 used Development Version 5 (Appendix C). This was identical to Development Version 4, used in Study 4, in terms of its response scale, scoring, and the instructions presented to the participants.

Development Version 5 contained 150 items. These included 134 items to represent the 6 scales under development, and 16 items derived from Rotter's (1966) locus of control scale, which were included to provide information about the relationship between locus of control and the other constructs addressed in this research. Each of the 6 scales under development included 22 items except for the Relation to Group scale, which included 24 items.

The items of Development Version 5 are presented, sorted by scale, in Appendix D, with the items of the Locus of Control scale. The protocol used during Study 5 presented participants with the items of all scales (including Locus of Control) mixed in random order.

Demographic Questionnaire

On a demographic questionnaire (Appendix C), each participant was asked to indicate gender, age, level of education, occupation, the languages spoken in the home, race and ethnicity, and religion. Responses were made by filling in blanks or by selecting from a set of options. In addition, participants were invited to comment upon the items of Development Version 5 or the Demographic Questionnaire.

Participants were permitted to describe themselves using multiple identifications for race, ethnicity, or religion, in recognition of the fact that an increasing number of individuals self-identify as multiracial or multiethnic (Beech, 1996; Root, 1996b), or as having multiple religious affiliations (Winston, 1998).

Some have questioned the propriety of using racial taxonomies of any type, because of a supposed implication of a biological basis to race (Cameron & Wycoff, 1998). However, the present researcher thought it best to give participants the non-mandatory option of self-identifying by racial categories, to facilitate potential comparisons with other multicultural counseling research that describes participants in racial terms (Carter, 1991).

Procedure

Data collection for Study 5 took place from February through July 1997. Some participants were approached through classes at their place of education, with the permission of the instructor. Others were approached at in-service meetings through their place of employment, with the permission of those in administrative authority.

Data were collected by this author and by several associates. In each instance of data collection, the procedure was essentially the same. The researcher or associate made an oral invitation to participate (Appendix E). The researcher or associate explained that this study was being conducted in connection with doctoral dissertation research in the counseling psychology program at New York University. The researcher or associate indicated very briefly that this was a study of

attitudes, that participation was voluntary, and that the questionnaire was anonymous. In classroom settings, it was explained that all class members would receive questionnaires, but that it was permitted to hand in blank questionnaires, and that neither the class instructor nor the researcher or associate would know who participated in the study and who did not. Those who wished to receive information about the findings of the study were encouraged to leave their name and address on a separate piece of paper, regardless of whether they chose to participate in the study. In most classroom settings, questionnaires were distributed to all members of the class, and were collected at the beginning of the following class session; in some classroom settings, participants filled out the protocols at the time of administration. In employment settings, questionnaires were distributed in person or through interoffice mail, and returned by participants at their leisure.

Data Analysis

Data gathered from the 23 participants of Study 4 were pooled with data gathered from participants of Study 5 for purposes of further statistical analysis. Items were appropriately scored (forward and reverse), and scale totals were calculated. Items marked "??" (which were very few in number) were recoded to indicate responses of "Can't Say." Subsequent analyses were performed on these adjusted scores.

As an initial step in evaluating items for retention, scale internal consistencies (as measured by Cronbach's alpha coefficient) were calculated. Items whose deletion would result in increased internal consistency for the scale were then dropped from further consideration.

This process was repeated until scale internal consistencies could not be further improved in this manner. Surviving items were passed on to the next step in the item evaluation process: item-score-level factor analysis.

A series of principal axis factor analyses were performed on participant's responses to Development Version 5 items. Items that did not show a sufficiently large loading (typically .30 or higher) on an appropriate factor were deleted from subsequent factor analyses. An "appropriate" factor for a given item was a factor where the overwhelming majority of large-loading items were from the same scale as the given item. For any individual factor analysis, only the largest loading of a given item across all scales was considered relevant.

Throughout the process of item evaluation, care was taken to have a balance of items on each scale that reflected both poles of each bipolar dimension. As will become apparent in the following chapter, the final set of items for five of the six WAI scales reflects an equal balance between both poles of the appropriate dimension.

Metaphysics scale items were handled somewhat differently from other items in terms of item retention decisions. In the first factor analysis, the Metaphysics scale items all loaded very strongly on a single factor, on which no items from other scales showed large loadings. These items as a group showed a very high reliability coefficient, well over .90. Consequently, because considerations of reliability could be served by a smaller number of items, it was decided to reduce the Metaphysics scale to a total of ten items. Items were selected for retention so as to maximize the breadth of item content,

while still keeping the overall length of the scale to ten items. These ten Metaphysics scale items were retained in subsequent factor analyses, due to the strength of their factor loadings.

Items that survived the item selection process were grouped into scales that were collectively designated as the Worldview Assessment Instrument (WAI). Subsequent data analyses were performed on participant responses obtained during Study 5 to items designated as part of the WAI. The WAI was not administered separately to participants.

After a final list of items was obtained for each scale, Cronbach's alpha coefficient was calculated as a measure of the internal consistency reliability of each scale. As an additional method of assessing internal consistency, item-total correlations were calculated, using the correction formula that applies when there are fewer than 100 items per scale (Nunnally, 1978).

Adapting standards suggested by Nunnally and Bernstein (1994, p. 305) and P. Kline (1986), the present researcher determined that the minimum satisfactory corrected item-total correlation for a WAI item would be .20, with a level of .30 suggesting strong internal consistency, and a level of .40 being most preferable. Adapting standards suggested by L. A. Clark and Watson (1995, p. 316), the present researcher determined that the average interitem correlation for each scale should fall in the range of .15 to .50. Adopting standards recommended by Cicchetti (1994), a minimum satisfactory value of Cronbach's alpha of .70 was set for the WAI scales, with a level of .80 suggesting strong internal consistency, and a level of .90 being most preferable.

Analysis of Construct Validity by Investigation of Factor Structure

After a final list of items was obtained for each scale, a principal axis factor analysis was conducted using the scale total scores. It was hoped that the scale scores would form a factor structure that could be interpreted easily in a meaningful way. Such a result would be evidence regarding the construct validity of the instrument as a whole, on the grounds of "factorial validity."

Limitations of the Present Research

Generalizations based on the results of this study are necessarily limited to the nature of the sample involved. Although efforts were made to construct a sample that was ethnically diverse, it was not possible within the constraints of the present research to engage in truly random or semi-random sampling of any ethnic group. Participants were predominantly undergraduate and graduate students, constricting thereby the socioeconomic variance of the sample. Participants were predominantly from the greater New York metropolitan area, Montana, Texas, and Pennsylvania, thus limiting the geographic and cultural variance of the sample. The sample was biased in that all the respondents were willing to participate in a study like this, which involved a paper-and-pencil task.

One weakness inherent in the methodology of survey questionnaires is the self-report nature of the elicited data. Two questions related to this issue are: one, do individuals report what they actually believe rather than what is socially acceptable or desirable (the

social desirability issue; Crowne & Marlowe, 1964); and, two, how aware are individuals of their own beliefs (the awareness issue)?

Concerning social desirability, P. Kline (1986) has noted that, in many instances, it is irrelevant that a scale or an item correlates significantly with social desirability. Some individuals are simply conventional and respond to the world in a socially desirable way; consequently, a valid instrument assessing belief or opinion might well show significant correlations with social desirability. However, in order to minimize the effect of a socially desirable response set, confidentiality was assured to participants, and it was requested that no identifying information along the lines of names or identification numbers be entered on the protocols.

Under the constraints of the present study, nothing could be done to address the awareness issue. Practical considerations ruled out elaborate "priming" procedures (e.g., viewing of vignettes, role playing) that might have led to increased awareness among the participants. Ultimately, this issue must be addressed through the assessment of validation in such a manner as interviews or judges' ratings of participants' beliefs.

Like all questionnaire research involving the self-assessment of attitudes using Likert-type response scales, the present research makes certain implicit assumptions about its participants, assumptions that may not be fulfilled within every culture or subculture from which participants were recruited. These assumptions include: a) participants can generate psychosocial judgments, b) participants can rank these judgments along a linear continuum, and c) participants can perform

self-assessment of their beliefs and attitudes (Lonner & Sundberg, 1985).
It was hoped that the possibility that these assumptions would be
justified would be maximized by collecting data primarily at
institutions of higher education, where it was presumed that
participants would have had some exposure to research methods like
these.

Chapter Summary

The first section of the chapter described the overall instrument
development process. Descriptions were given concerning some
decisions that were made early in the development process, in terms of
1) the way that the world view construct was operationalized (i.e., in
dimensional terms rather than categorical ones), 2) the basic format for
data collection (i.e., paper-and-pencil instruments using a Likert-type
response scale), and 3) the use of a basic statistical procedure (i.e.,
principal axis factor analysis applied to item-score-level data).

In the second section of the chapter, the sequence of five studies
that led to the development of the WAI was described. Results were
reported for the first four studies. (Results for Study 5 comprise the
following chapter.)

In the third section of the chapter, some limitations of
questionnaire research are described. Ways in which the present
research attempted to address some of these limitations were outlined.

CHAPTER IV

RESULTS

This chapter reports in detail the findings of Study 5, which had as its purpose the development of final scales for the Worldview Assessment Instrument (WAI). First, the sample is described in detail. Second, the results of an item-level factor analysis are given in detail. Third, the resulting scales are described in terms of their distributions, correlations, and reliabilities. Fourth, the scale-level factor structure of the WAI is described. The fifth and final section summarizes the chapter.

The Sample

A total of 306 protocols (Development Version 5, with 150 items) were received from participants. Of these, 15 protocols (4.9%) were rejected as unusable, because participants had, apparently inadvertently, skipped entire pages of items. Thus, a total of 291 usable protocols were received, which was very close (97%) to the goal of 300. The sources and a basic description of the participants are given in Table 8. As Table 8 illustrates, the sample was composed of a collection of sub-samples of convenience, which together comprise a heterogeneous collection of undergraduates, graduate students, and adults in the work force, in New York, Montana, Pennsylvania, and Texas.

Table 8

Sources for and Description of Participants in Study 5 (N = 291)

Source and Description of Participants	n	Percentage of Sample
Montana State University—Billings, Department of Psychology: undergraduate students	83	28.5
NYU School of Education, Department of Applied Psychology and Department of Teaching and Learning: master's and doctoral degree students	75	25.8
Philadelphia, PA: postal workers	42	14.4
Southern Methodist University (Texas), Department of Psychology: undergraduate students	39	13.4
Sunset Terrace Family Health Center, Brooklyn, NY: staff psychotherapists	30	10.3
NYU School of Education, Department of Drama Therapy: master's degree students	11	3.8
NYU Stern School of Business: adult staff	7	2.4
Buffalo, NY: staff at bookstore	4	1.4

The demographics of the sample are described in Table 9. The modal participant was a White non-Hispanic 27-year-old Roman Catholic female with some college education. The age of participants ranged from 18 to 66 years, with a median value of 27 years (mean age = 29.4, SD = 10.4). Race and ethnicity are tabulated both in the combined format used by the U.S. Census Bureau and also separately, in a format

adapted from one recommended by the Association of MultiEthnic Americans (Root, 1996b, pp. 415-416).

Table 9

Demographics of Participants in Study 5 (N = 291)[a]

Variable	Value	n	Percentage of Sample
Gender	Female	200	69.7
	Male	87	30.3
Age	<20	37	13.2
	20-29	144	51.2
	30-39	51	18.1
	40-49	29	10.3
	50-59	18	6.4
	60-69	2	0.7
Highest	8th Grade	1	0.3
Level of	Some High School	1	0.3
Education	High School graduate	10	3.5
	Some College	108	37.5
	Associate's Degree	19	6.6

(table continues)

Table 9. *(continued)*

Variable	Value	*n*	Percentage of Sample
Highest	Bachelor's Degree	40	13.9
Level of	Some graduate school	49	17.0
Education	Master's Degree	48	16.7
(continued)	Doctoral Degree	12	4.2
U.S. Census	American Indian	9	3.2
Categories	Asian	10	3.6
(Race &	Black non-Hispanic	14	5.1
Ethnicity)	Hispanic	37	13.4
	White non-Hispanic	207	74.7
Race[b]	American Indian	6	2.2
	Asian	12	4.3
	Black	12	4.3
	White	234	84.8
	Multiracial	12	4.3
Ethnicity[b]	Hispanic	25	9.0
	Non-Hispanic	198	71.5
	Multiethnic I[c]	12	4.3
	Multiethnic II[d]	42	15.2

(table continues)

Table 9. *(continued)*

Variable	Value	*n*	Percentage of Sample
Religion[e]	Atheist	4	1.5
	Agnostic	31	11.3
	Buddhist	7	2.5
	C/n—Roman Catholic	88	32.0
	C/n—Orthodox	1	0.4
	C/n—Protestant	70	25.5
	C/n—Latter-day Saint	7	2.5
	C/n—Other	14	5.1
	Ethical Culture	3	1.1
	Islamic	4	1.5
	Jewish—Orthodox	2	0.7
	Jewish—Reform	8	2.9
	Jewish—Conservative	7	2.5
	Jewish—Secular	8	2.9
	New Age	3	1.1
	None	31	11.3
	Santeria	1	0.4
	Taoist	4	1.5
	Unitarian Universalist	3	1.1
	Wiccan/Craft/Pagan	3	1.1

(table continues)

Table 9. *(continued)*

Variable	Value	n	Percentage of Sample
Religion[e]	Other	11	4.0

(continued)

[a]Not all participants responded to all items. 287 participants (98.6% of total sample submitting valid protocols) responded to the gender item, 281 (96.6%) to the age item, 288 (99%) to the education item, 277 (95.2%) to census race-ethnicity items, 276 (94.8%) to the race item, 277 (95.2%) to the ethnicity item, and 275 (94.5%) to the religion item. All percentages in body of table are based on number of participants submitting valid protocols who responded to the item involved.

[b]Racial and ethnic categories adapted from Root (1996b, pp. 415-516).

[c]Parents of Hispanic and non-Hispanic origin.

[d]Parents of different but non-Hispanic ethnic origin.

[e]Religion percentages total more than 100% because some participants indicated more than one choice: 26 participants (9.5% of respondents) indicated two choices, and 9 (3.3%) indicated three choices.

Item-Score-Level Factor Structure

As explained in Chapter III, participant responses to the 150 items of Development Version 5 were analyzed, and many items were deleted to maximize reliability and factorial validity. The Locus of Control scale items that survived the item selection process formed their own cohesive factor when factor analyzed against the items of the

six scales under development (see Appendix F); Locus of Control scale items were deleted from the final instrument. The remaining 54 items comprise the Worldview Assessment Instrument (WAI).

Using participant responses, collected during Study 5, to the 54 items of the WAI, a series of principal axis factor analyses (PAF) were performed on item-level data. Varimax rotation with Kaiser normalization was used in each factor analysis. An analysis using 6 factors provided the most interpretable factor structure for the data, accounting for 35.9% of the variance. (Although this is a smaller proportion of variance accounted for by the factors than one would hope for, the size of this proportion may reflect sample heterogeneity; S. Weinberg, personal communication, April 11, 2000.) The non-sphericity assumption was met (Bartlett's test of sphericity, $\chi^2(1431) = 5763.94$, $p < .001$), as were acceptable standards for sampling adequacy (Kaiser-Meyer-Olkin Measure of Sampling Adequacy = .785). Each of the 6 factors comprises one scale on the WAI. The results of the item-score-level factor analysis for the items of the six scales under development are given in Table 10. The factor loading given for each item is the largest loading for that item on any factor. Following Table 10, each scale is described in terms of its surviving constituent items.

The obtained value of Cronbach's alpha is noted in Table 10 for each scale; other measures of scale internal consistency are discussed in the following section of this chapter, "Scale-Level Analyses." A table with all factor loadings for all items (as well as for the items of the Locus of Control scale that survived the item selection process) is found in Appendix F.

Table 10

Item-Score-Level Factor Analysis of the WAI (N = 291)

Item (Corrected Item-Total Correlation)	Scale Alpha/ Item Factor Loading
Factor 1: Metaphysics Scale (Eigenvalue = 5.298; 10 items)	.91
3. There is a real spiritual realm that affects our life in this world. (.79)	.695
20. Nothing is really 'dead': spirit infuses everything and everyone. (.58)	.619
24. People can actually receive revelation or visions from the spiritual realm. (.67)	.709
41. Some people possess actual spiritual powers like healing and being able to foresee the future. (.54)	.620
49. We can receive messages from spirits. (.71)	.746
16.* There is only matter; there is no substance such as 'spirit.' (.69)	.695
37.* There is no such thing as an 'ultimate' or spiritual reality beyond everyday life. (.77)	.774
45.* When people say they feel joy through spiritual experiences, this is just the power of suggestion. (.66)	.654
28.* Prayer may make someone feel good, but otherwise it is pointless. (.63)	.635
12.* When we die, we die; there is no continued existence. (.72)	.764

(table continues)

Table 10. *(continued)*

Item (Corrected Item-Total Correlation)	Scale Alpha/ Item Factor Loading
Factor 2: Locus of Responsibility Scale (Eigenvalue = 3.564; 14 items)	.80
1. Some social groups can keep people down no matter how much the people want to succeed. (.42)	.448
8. Prejudice keeps many people from getting a job. (.44)	.491
21. Poor people can justly blame society for their position in life. (.39)	.463
25. When poor people do drugs, it is because society has made them desperate. (.32)	.470
46. A shift in company policies can make even a hard-working person unemployed and poor. (.36)	.383
42. People drop out of high school because of racism and prejudice in the school system. (.43)	.495
27. Poor people can justly blame rich people for their position in life. (.31)	.370
48.* No other group of people can keep you down if you are determined to succeed. (.46)	.475
17.* If people really want to succeed, they'll overcome any kind of discrimination. (.54)	.582
29.* Unemployment exists because some people don't want to work.[a] (.38)	.445
33.* When poor people do drugs, it's because they don't want to improve themselves. (.31)	.343

(table continues)

Table 10. *(continued)*

Item (Corrected Item-Total Correlation)	Scale Alpha/ Item Factor Loading
50.* Anyone who really wants to work can get a job. (.62)	.673
4.* If you work hard and manage your money well, you'll never have to worry about being poor. (.51)	.549
53.* Anyone who really values education will be sure to graduate from high school, at least. (.32)	.327
Factor 3: Agency Scale (Eigenvalue = 3.514; 8 items)	.81
5. Free will is part of human nature. (.56)	.604
22. People really have "free will" in making choices for their lives. (.55)	.559
30. It may take a lot of effort, but a person can decide to change even a very old habit. (.41)	.417
51. People can decide to live differently than any way they have ever been taught. (.30)	.348
38.* The idea of "free will" is a joke: there is no such thing. (.70)	.795
34.* Human beings are like computers: controlled by their programming, and without real choice. (.53)	.608
13.* People only believe in "free will" because they are taught to believe in it. (.53)	.580
9.* The feeling that we have personal choice is actually just an illusion. (.64)	.682

(table continues)

Table 10. *(continued)*

Item (Corrected Item-Total Correlation)	Scale Alpha/ Item Factor Loading
Factor 4: Relation to Group Scale (Eigenvalue = 2.975; 12 items)	.77
2. My country's needs come before my own. (.41)	.520
6. My neighborhood's needs come before my own. (.54)	.649
18. My family's needs come before my own. (.32)	.360
26. In a company, it is better to contribute to the overall performance of one's department rather than to just further one's career. (.37)	.424
39. As an employee, the company's needs come before my own. (.34)	.412
43. I would donate my recreational spending money for one month if the head of my religious congregation asked for a donation for necessary repairs to our house of worship. (.48)	.540
14.* My own goals are more important than the goals of my group, at work, school, or in my community. (.51)	.561
35.* My first allegiance is to myself, rather than to anyone or anything else. (.48)	.513
52.* I value my own freedom above even my family relationships. (.33)	.349
31.* What I think I should do is more important to me than what the leaders of my spiritual community think I should do. (.24)	.302

(table continues)

Table 10. *(continued)*

Item (Corrected Item-Total Correlation)	Scale Alpha/ Item Factor Loading
10.* Other people can take care of themselves; I've got to look out for Number One. (.40)	.436
54.* I would rather spend time working on my own projects than serve on the local community board for free. (.46)	.515
Factor 5: Relation to Authority Scale (Eigenvalue = 2.239; 6 items)	.71
7. A teacher should set rules in class rather than decide them along with the students. (.54)	.629
40. The important decisions in a family should be made by the parents alone, rather than deciding along with the children. (.51)	.598
36. It is important for twelve-year-old children to obey their parents' directions without dispute. (.33)	.416
23.* At work, managers and workers should work together to make important business decisions. (.41)	.456
47.* Teachers and students should work together to compose classroom rules. (.54)	.645
15.* At home, important decisions should be made by the parents and children together. (.37)	.435

(table continues)

Table 10. *(continued)*

Item (Corrected Item-Total Correlation)	Scale Alpha/ Item Factor Loading
<u>Factor 6: Mutability Scale</u> (Eigenvalue = 1.770; 4 items)	.65
11.* A person's character cannot be altered, tampered with, or changed. (.33)	.294
32.* Even 'brainwashing' or torture cannot really change someone's basic character. (.45)	.441
44.* A basically kind, optimistic person will remain that way, even after surviving a hostage experience. (.45)	.534
19.* Even a lot of bad friends cannot change a basically good child for long. (.50)	.582

Note. Scales are listed in descending order of eigenvalue. Item numbers refer to item position within the WAI. All corrected item-total correlations are significant at the $p < .001$ level.

*Reverse-scored.

[a]Adapted from Latting and Zundel (1986).

It is now possible to characterize each scale in terms of its constituent items:

The Metaphysics scale is composed of 10 items ($\alpha = .91$). It measures a dimension of world view that ranges from belief that there actually are such things as "spirit," a spiritual realm, and spiritual powers, to belief that there is no such thing as "spirit" or a spiritual realm at all.

The Locus of Responsibility scale is composed of 14 items (α = .80). It measures a dimension of world view that ranges from belief that people's circumstances in life (e.g., economic status) are primarily the result of social forces to a belief that people's circumstances in life are primarily the result of each individual's decision and effort.

The Agency scale is composed of 8 items (α = .81). It measures a dimension of world view that ranges from belief that free will is a significant component of behavior to belief that personal choice does not exist.

The Relation to Group scale is composed of 12 items (α = .77). It measures a dimension of world view that ranges from belief that the needs of the respondent's reference group (e.g., family, work group) come before those of the respondent, to belief that the respondent's individual agenda supersedes the agenda of any reference group.

The Relation to Authority scale is composed of 6 items (α = .71). It measures a dimension of world view that ranges from belief that authority should be exercised in a linear, top-down fashion (and that obedience should be rendered in a linear, bottom-up fashion) to belief that decisions and regulations should be made in a joint fashion.

The Mutability scale is composed of 4 items (α = .65). It measures the belief that a person's character is essentially permanent and unchanging in the face of external forces.

Comparison of these empirically-derived scale definitions with the conceptual definitions given at the conclusion of Chapter I above indicate a generally close agreement. That is, scale items reflect the

conceptual definitions as anticipated. The exception is the Mutability scale, whose items reflect only the Permanent pole of the conceptual definition; items are lacking to reflect the belief that personal character is malleable.

Scale-Level Analyses

This section of the chapter describes the WAI at the level of scales rather than items, and total scale scores rather than item scores. The meanings of scale total scores are described. The sample is characterized in terms of its scores in relation to the polarities of the WAI scales. The distributions of total scale scores are described. Correlations between the total scale scores are presented. Scale reliabilities are discussed in detail.

Interpretations of Scale Total Scores

The meanings of higher and lower scores on the WAI scales and Locus of Control scale are given in Table 11, and explained below. Scores are designated as "higher" or "lower" on the basis of relationship to the score of a hypothetical respondent indicating "Cannot Say" to all items.

For the Metaphysics scale, higher scores (i.e., scores substantially over 40) reflect the belief that there exists a real spiritual realm, pervading the physical world, that is a source of spiritual experiences and powers. Lower scores (i.e., scores substantially under 40) reflect the belief that there is no such thing as "spirit" or a spiritual reality or existence.

Table 11

Meaning of Higher and Lower Scores on the WAI and Locus of Control
Scales

| | Pole Reflected by Score | |
Scale	Higher Score	Lower Score
Metaphysics	over 40: Spiritualist	under 40: Materialist
Responsibility	over 56: External	under 56: Internal
Agency	over 32: Voluntarist	under 32: Determinist
Group	over 48: Collectivist	under 48: Individualist
Authority	over 24: Linear	under 24: Lateral
Mutability	over 16: Changeable	under 16: Permanent
Control	over 20: External	under 20: Internal

For the Locus of Responsibility scale, higher scores (i.e., scores
substantially over 56) reflect the belief that unfavorable circumstances
in life (e.g., poverty, unemployment, drug abuse, incomplete
education) are the result of larger social forces (e.g., racism, prejudice,
economic discrimination). Lower scores (i.e., scores substantially under
56) reflect the belief that personal circumstances, favorable or
unfavorable, are the result of personal attributes, such as effort, and
attitudes towards work and education.

For the Agency scale, higher scores (i.e., scores substantially over
32) reflect the belief that free will is an actual component of human
nature, and that people choose at least some aspects of their behavior.

Lower scores (i.e., scores substantially under 32) reflect the belief that free will is illusory, and that people's behavior is determined in the way that a machine's "behavior" is.

For the Relation to Group scale, higher scores (i.e., scores substantially over 48) reflect the belief that the needs and goals of the respondent's reference group (e.g., family, work group, faith community) have priority over the individual's personal needs or goals. Lower scores (i.e., scores substantially under 48) reflect the belief that the respondent's personal goals have priority over those of the respondent's reference group.

For the Relation to Authority scale, higher scores (i.e., scores substantially over 24) reflect the belief that, in a family or educational setting, authority and obedience should be exercised in a linear, top-down fashion. Lower scores (i.e., scores substantially under 24) reflect the belief that, at home, school, or work, decisions and guidelines should be set through consensus.

For the Mutability Scale, lower scores (i.e., scores substantially below 16) reflect the belief that a person's character and outlook is permanent and relatively unchangeable in the face of external forces. Higher scores (i.e., scores substantially over 16) reflect rejection of this belief, perhaps thereby implying the belief that character is changeable through external forces.

For the Locus of Control scale, higher scores (i.e., scores substantially over 20) reflect the belief that contingencies or rewards in life are the result of luck. Lower scores (i.e., scores substantially under 20) reflect the belief that contingencies or rewards are the result of

personal attributes, such as hard work, or circumstances other than luck.

Distribution of Sample among WAI and Locus of Control Polarities

The distribution of the sample among the poles of the WAI and Locus of Control scales is given in Table 12.   The distribution of the participants ranges from a relatively mild imbalance for the Locus of Control scale to an overwhelming imbalance for the Agency scale.

Table 12

Percentages of Sample Scoring in Bi-Polar Ranges of WAI and Locus of Control Scales (N = 291)

Scale	Pole: Percentage		Pole: Percentage		Borderline
Metaphysics	Spiritualist:	77.0%	Materialist:	19.9%	3.1%
Responsibility	External:	34.7%	Internal:	63.6%	1.7%
Agency	Voluntarist:	96.2%	Determinist:	3.4%	0.3%
Group	Collectivist:	37.1%	Individualist:	59.4%	3.4%
Authority	Linear:	26.5%	Lateral:	68.7%	4.8%
Mutability	Changeable:	63.2%	Permanent:	28.2%	8.6%
Control	External:	52.2%	Internal:	40.6%	7.2%

Note. "Borderline" refers to the percentage of the sample whose score was identical to that of a hypothetical participant who responded "Cannot Say" to all items of a given scale. Totals do not add to 100% due to rounding error.

Distributions of Scale Total Scores

Descriptive statistics for the sample regarding the WAI scale total scores are given in Table 13. Information regarding the Locus of Control scale is also given, for purposes of comparison with the WAI scales. It is clear that the distributions for several of the scales are far from normal. A fair degree of variability is evident in the scale scores.

Table 13

Descriptive Statistics for the WAI and Locus of Control Scales (N = 291)

Scale	# items	Mean	SD	Min.	Max.	Range	Skew	Std.Error
Metaph.	10	48.19	12.70	11	70	59	-.550	.744
Respons.	14	51.44	12.44	18	94	76·	.092	.729
Agency	8	46.25	6.74	15	56	41	-.882	.395
Group	12	44.86	10.72	12	78	66	.004	.628
Authority	6	19.90	6.33	6	35	29	.008	.371
Mutability	4	17.48	4.23	6	28	22	-.168	.248
Control	5	20.50	5.72	5	35	30	-.230	.335

Note. See Table 11 for interpretive guide to meaning of higher vs. lower scores for each scale. "Metaph." = Metaphysics; "Respons." = Locus of Responsibility; "Group" = Relation to Group; "Authority" = Relation to Authority; "Control" = Locus of Control; "SD" = Standard Deviation; "Min." = minimum score; "Max." = maximum score.

The data in Table 13 indicate that, for the Agency scale, responses were very heavily skewed in a negative direction (i.e., exhibiting a preponderance of high scores). In addition, for the Metaphysics scale, responses were strongly skewed in a negative direction. These findings suggest that the sample as a whole showed a decided preference for the position that human beings exhibit free will; in addition, the sample as a whole showed a tendency to hold the position that reality has a spiritual aspect in actuality.

Table 14

Intercorrelations of the WAI and Locus of Control Scales (N = 291)

Scale	2	3	4	5	6	7
1. Metaphysics	.08	.27***	.20***	-.06	.05	.05
2. Responsibility	—	-.07	.03	-.23***	.17**	.29***
3. Agency		—	.11	-.14*	.08	-.03
4. Group			—	-.11	-.02	-.06
5. Authority				—	-.07	-.02
6. Mutability					—	-.05
7. Control						—

*$p < .05$. **$p < .01$. ***$p < .001$.

Scale Correlations

The pattern of correlations among the WAI and the Locus of Control scale scores is given in Table 14. The correlations among WAI

total scale scores tended to be weak (median absolute value = .08), with the largest correlation accounting for 7.3% of observed variance. In addition, the correlations between the Locus of Control measure and the WAI scales tended to be weak (median absolute value = .05), with the largest correlation accounting for 8.4% of observed variance. This pattern of correlation suggests that the WAI scales vary essentially independently of one another, and independently of the Locus of Control scale. As evidence of orthogonality, these findings provide support for the construct validity of the WAI scales.

Scale Internal Consistencies

Internal consistency for scales was assessed in three ways: a) minimum, median, and maximum corrected item-total correlation for each scale; b) mean item intercorrelation for each scale; and, c) Cronbach's alpha coefficient. Corrected item-total correlation data and mean item intercorrelations for each scale are reported in Table 15.

As shown in Table 15, all items of all WAI scales met the minimum standard (.20) set by the present researcher for corrected item-total correlations. For all but one of the scales, all items exceeded the .30 level for corrected item-total correlation, suggesting strong internal consistency.

Table 15

Minimum, Median, and Maximum Corrected Item-Total Correlations,
and Mean Item Intercorrelations, of WAI Scales (N = 291)

| Scale | Corrected Item-Total Correlation | | | Mean |
	Minimum	Median	Maximum	r_{ii}
Metaphysics	.544	.683	.792	.507
Locus of Responsibility	.306	.407	.623	.218
Agency	.302	.538	.702	.344
Relation to Group	.236	.403	.541	.222
Relation to Authority	.327	.458	.538	.294
Mutability	.326	.450	.499	.316

As is also shown in Table 15, for all practical purposes, all scales met the standard set by the present researcher in terms of the average interitem correlation. That is, essentially, for each scale, the average interitem correlation fell in the range of .15—.50. This would seem to suggest a good degree of internal consistency, while not compromising scale validity through redundancy. However, examination of the range and distribution of the individual interitem correlations revealed some problems with internal consistency. As the most prominent example, 56% of the interitem correlations on the Metaphysics scale were over .50 (the highest being .70), suggesting the need for some concern regarding item redundancy on this scale (L. A. Clark & Watson, 1995, p. 316).

The internal consistency reliability of each scale in the WAI, as assessed by Cronbach's coefficient alpha, is given in Table 16. For purposes of comparison, this table also lists the internal consistency reliabilities of the corresponding scales developed in the course of Study 3. As Table 16 demonstrates, the scales of the WAI represent, on the whole, a substantial improvement in internal consistency reliability over the scales developed during Study 3.

Table 16

Internal Consistencies (Cronbach's Alpha) of WAI Scales (N = 291)

Scale	Cronbach's Alpha	
	Scales Developed During Study 3	WAI
Metaphysics	.88	.91
Agency	.65	.81
Locus of Responsibility	.71	.80
Relation to Group	.67	.77
Relation to Authority	.54	.71
Mutability	.50	.65

Using the standard set by Nunnally and Bernstein (1994, p. 265), the Metaphysics, Agency, and Locus of Responsibility scales of the WAI would all be considered adequate; the Relation to Group scale would nearly attain this standard, as well. Applying the more articulated set

of standards of Cicchetti (1994) to the WAI scales, the Metaphysics scale has an "excellent" level of clinical significance, the Agency and Locus of Responsibility scales each have a "good" level of clinical significance, the Relation to Group and Relation to Authority scales each have a "fair" level of clinical significance, and only the Mutability scale has an "unacceptable" level of clinical significance.

Scale-Score-Level Factor Structure

To explore the underlying structure of the WAI at the level of scale total scores, a factor analysis was performed using the total scale scores for each of the six WAI scales plus the Locus of Control scale. The procedure used was a Principal Component Analysis using an eigenvalues-greater-than-one criterion to extract factors. The non-sphericity assumption of factor analysis was fulfilled for these data (Bartlett's $\chi^2(27) = 107.5$, $p < .0001$). Factor analysis revealed three underlying factors, shown in Table 17. The three eigenvalues together account for 56.1% of the observed variance.

An Orthotran/Varimax procedure was used to rotate factors. Rotated factor loadings for the WAI scales and the Locus of Control scale are presented in Table 18 below.

Table 17

Eigenvalues from Scale-Score-Level Factor Analysis of WAI and Locus of Control Scales (N = 291)

Value #	Magnitude	Proportion of Variance Accounted For	Cumulative Variance Accounted For
1	1.531	.219	.219
2	1.335	.191	.410
3	1.056	.151	.561

Table 18

Factor Loadings for WAI and Locus of Control Scales (N = 291)

Scale	Factors		
	1	2	3
Metaphysics	.728	.121	.015
Agency	.642	-.206	.207
Relation to Group	.625	.021	-.062
Locus of Control	-.013	.809	-.173
Locus of Responsibility	-.016	.729	.426
Mutability	-.088	-.122	.832
Relation to Authority	-.257	-.244	-.498

Note. Factor loadings above .40 are judged to be significant (following Nunnally, 1978, p. 434), and are underlined in the body of the table.

These three factors can be interpreted in terms of very general categories of approaches to life: an overall vision of life and its metaphysical setting, a sense of the powers functioning in life, and a sense of the pathways life should take. Each of these factors is interpreted below.

Factor 1: Vision of Life: The Pueblo or the Pool Hall?

The Metaphysics, Agency, and Relation to Group scales load very strongly (.6 level or higher) on Factor 1. The pattern of loading suggests that participants who tend toward the Spiritualist pole of the Metaphysics dimension also tend toward the Voluntarist (Free Will) pole of the Agency dimension, as well as toward the Collectivist pole of the Relation to Group dimension. In the same way, participants who tend toward the Materialist pole of the Metaphysics dimension also tend toward the Determinist pole of the Agency dimension, as well as toward the Individualist pole of the Relation to Group dimension.

This factor seems to reflect views about what might be called one's overall "vision of life" and its major metaphysical underpinnings. At one extreme, one sees life as a "Material Deterministic Individualist": reality is defined in purely material terms; this material universe is sheerly deterministic (especially in terms of what forms one's own behavior); and, within the framework of this material and deterministic universe, one's own goals and agenda take precedence over those of any group to which one is attached. At the other extreme, one sees life as a "Spiritual Free Will Collectivist": there is an actual spiritual dimension to reality; one exists

in this spiritual universe as someone with actual moral agency and free will; and, within the framework of this universe, the goals of one's group take precedence over one's own agenda as an individual.

This difference may be seen by reference to a parabolic comparison. Is life best understood as a Pueblo, or as a Pool Hall?

One takes a very distinctive perspective on and approach to the world if one views it as a pueblo—particularly if one has been born into a pueblo-dwelling Native American group, such as the Hopi (Aberle, 1951/1967). In the Hopi view, the world is permeated with spirit and spiritual influences (consistent with the Spiritualist orientation of the Metaphysics dimension). For the Hopi, the ideal person shows the virtues of self-control and obedience to law, traits that imply the capacity to choose behavior (consistent with the Voluntarist pole of the Agency dimension). The Hopi also have a strong orientation towards serving their clans and religious societies (consistent with the Collectivist pole of the Relation to Group dimension). Thus, the world view of those who score high on WAI Factor 1 (Vision of Life) can be said to resemble the perspective of one looking at the world from within a pueblo. (Of course, very many communities could be used to illustrate this perspective, such as the 1st century Essene sectaries of Judaism and the 19th century Mormon pioneers; Arrington, Fox, & May, 1976; Margolis & Marx, 1927/1969).

The perspective of the world one gets from a pool hall is rather different. There is no unseen world here; this is the realm of the green felt and the bumpers. As far as the game of pool itself is concerned, only what is seen is real (analogous to the Materialist position on the

Metaphysics dimension). Whatever their beliefs in regards to human nature, all pool and billiards players—depending for success on the mastery of Newtonian laws of cause and effect (e.g., Byrne, 1987)—are strictly determinists when it comes to the behavior of billiard balls (this being analogous to the Determinist pole of the Agency dimension). Finally, the opposing players in a game of pool are each concerned only for her or his own score and victory. Even in team play, there is never a reason to sacrifice one's own agenda for the good of someone else's; this reflects the Individualist position on the Relation to Group dimension. Thus, the world view of those who score low on WAI Factor 1 (Vision of Life) can be said to resemble the perspective of someone within a pool hall.

Factor 2: Power in Life: The Match Boy or the Marshal?

The Locus of Control and Locus of Responsibility scales load strongly (.7 level or stronger) on Factor 2. The pattern of loading suggests that individuals who tend toward an External Locus of Control tend towards an External Locus of Responsibility; conversely, individuals who tend toward an Internal Locus of Control tend towards an Internal Locus of Responsibility.

This factor seems to reflect views regarding the locations from which power is exerted in one's life. At one extreme, the "External Responsibility—External Control" sector, one believes that external influences (prejudice or other social forces, genetics, fate, or luck) are responsible for an individual's position and opportunities in society, and are much more powerful than an individual in controlling that

individual's receipt of reinforcements. At the other extreme, the "Internal Responsibility—Internal Control" pole, one believes that an individual's behavior and characteristics are responsible for that individual's position and opportunities in society, and are much more powerful than external factors in controlling that individual's receipt of reinforcements.

This difference may be seen by reference to a different comparison. Does life offer one opportunity and power in the way it offered it to the Match Boy, or to the Marshal?

To Mark, the match vendor of the Horatio Alger story set in 19th century New York (Alger, 1866/1962), a background of poverty and lack of social status was no bar to opportunity, consistent with the Internal Locus of Responsibility orientation. His mentor, Richard "Ragged Dick" Hunter, had advanced from being a homeless bootblack to being a bookkeeper, "partly due to good fortune, but largely to his own determination to improve, and hopeful energy" (Alger, 1866/1962, p. 221), consistent with the Internal Locus of Control orientation. Thus, the world view of those who score high on WAI Factor 2 (Power in Life) can be said to resemble the perspective of the Match Boy.

Life was quite different for a 19th Century military Marshal, however—particularly if that marshal was living, not in New York, but in Neuteich, as an officer in the Prussian Army. For such a marshal, opportunity was a fact of birth, his opportunity to reach his rank a class privilege conferred by lineage (Vagts, 1959/1967), a matter of luck consistent with the External Locus of Responsibility. In addition, his opportunities for advancement were largely out of his

hands, dependent on the vagaries of political favor and the skill of his troops, consistent with the External Locus of Responsibility. (Although this caste system worked to the Marshal's advantage, of course the outcomes would likely not be so pleasant for those born into different circumstances, such as a so-called lower caste in Asia; Almeida, 1996). Thus, the world view of those who score low on WAI Factor 2 (Power in Life) can be said to resemble the perspective of the Marshal.

Factor 3: Pathway through Life: The Surfer or the Soldier?

The Mutability, Relation to Authority, and Locus of Responsibility scales load strongly on Factor 3. The pattern of loading suggests that participants who tend toward the Changeable pole of the Mutability dimension also tend toward the Lateral pole of the Relation to Authority dimension, as well as towards the External pole of the Locus of Responsibility dimension. In the same way, participants who tend toward the Permanent pole of the Mutability dimension also tend toward the Linear pole of the Relation to Authority dimension and the Internal pole of the Locus of Responsibility dimension.

This factor seems to reflect views about what might be called "the pathway of life." At one extreme, the "Winding Pathway" view is that, in human life, character is changeable; it is external factors that have shaped one's past successes or failures, this way and that; and, a lateral or shared approach to authority is natural. On the other hand, the "Direct Pathway" view is that character is essentially unchangeable; a linear approach to authority is natural; and, it is one's own

responsibility as to whether one has made a success or failure of oneself . in life.

This difference may be seen by reference to another parabolic comparison. Is the pathway one takes through life that of the surfer, or that of the soldier?

In most regions where the sport of surfing is practiced, authority regarding who is permitted to surf is widely dispersed among the group of local or neighborhood surfers, a phenomenon known as "localism" (Werner, 1993, p. 80), which reflects the Lateral position on the Relation to Authority dimension. A surfer has to go, literally, with the flow of things, given that one cannot control the waves that provide one with the opportunity to surf (analogous to the External position on the Locus of Responsibility dimension). And, a surfer has an inherently fluid identity; today's surfer is tomorrow's sailboard or hang glider enthusiast (analogous to the Changeable pole on the Mutability dimension). Thus, the world view of those who score high on WAI Factor 3 (Pathway through Life) can be said to resemble the perspective of the Surfer.

On the other hand, to the soldier, all soldiers are *not* equal, but are ranked in a chain of command (reflecting a Linear position on the Relation to Authority dimension); this applies even within the most purportedly 'individualistic' of military units, Special Forces teams (Simons, 1997). Anecdotal evidence suggests that one's opportunities in the modern American military are not based on considerations of race, ethnicity, or social class (consistent with the Internal position on the Locus of Responsibility dimension). And, once a soldier, always a

soldier; one never hears of a retiree from the Army joining the Navy, for example (analogous to the Permanent pole on the Mutability dimension). Thus, the world view of those who score low on WAI Factor 3 (Pathway through Life) can be said to resemble the perspective of the Soldier.

Correlations Between Scale-Level Factors

The pattern of correlations among the three factors is given in Table 19. The factors are weakly correlated, with the largest correlation accounting for approximately 5.4% of shared variance. This pattern suggests that these three higher-order factors are essentially orthogonal.

Table 19

Intercorrelations of Higher-Level Factors Found in Analysis of WAI and Locus of Control Scales (N = 291)

Factor	1	2	3
1. Vision of Life	—	.091	-.197***
2. Power in Life		—	-.232***
3. Pathway through Life			—

***$p < .001$.

Chapter Summary

This chapter reported the results of Study 5, which had as its purpose the development of final scales for the instrument. The final

form of these scales was designated collectively as the Worldview
Assessment Instrument (WAI).

In the first section of the chapter, the sample was described. The
geographical setting and a brief characterization of each subsample of
participants was given (Table 8). The demographic characteristics of the
sample as a whole were described, in terms of gender, age, education,
race, ethnicity, and religion (Table 9).

The second section of the chapter set forth the results of an item-
score-level factor analysis of the WAI (Table 10). Each of the factors
arising in this analysis comprises a scale on the WAI.

The third section of the chapter described the scales of the WAI,
in terms of the meanings of higher and lower scores (Table 11) and
their distributions and descriptive statistics as observed in the sample
(Tables 12 and 13), scale intercorrelations (Table 14), and internal
consistency reliability coefficients (Tables 15 and 16). It was found that
scale intercorrelations are low, suggesting that the scales are orthogonal
(Table 14). For the most part, scale internal consistencies as assessed by
minimum and median corrected item-total correlations and mean
item intercorrelations are satisfactory (Table 15). For the most part
(except for the Mutability scale), scale internal consistency reliabilities
as measured by coefficient alpha are satisfactory (Table 16).

The fourth section of the chapter described the scale-score-level
factor structure of the WAI. Factor analysis revealed three higher-
order factors (Tables 17 and 18), which can be interpreted in terms of
categories of approaches to life. Specifically, these factors are
interpretable in terms of differing visions of life and its metaphysical

underpinnings (Factor 1), differing beliefs about what powers (external or personal) are most powerful in influencing life (Factor 2), and what is the proper pathway one should take through life (Factor 3). Factor intercorrelations are low (Table 19), suggesting that these three factors are orthogonal.

CHAPTER V

SUMMARY AND DISCUSSION

The first part of this chapter evaluates the success of the present research project in terms of its psychometric objective. The second part of the chapter sets out recommendations for further validation efforts regarding the WAI. The third part of the chapter reflects on what the present study has to contribute to a discussion of contemporary American world view beliefs. The fourth part of the chapter discusses what the present study reveals concerning higher-order world view structures. The fifth part of the chapter makes recommendations for the use of the WAI in research within generic and multicultural counseling and psychotherapy. A summary concludes the chapter.

Attainment of Psychometric Objectives

This part of the chapter first considers to what extent the present research was successful in developing a reliable instrument for the assessment of world views with some preliminary indications of validity. It next evaluates and critiques the scales developed, as a group and individually. Finally, critiques of the research methodology are made, with suggestions for improvement.

Evaluation of the WAI as a Whole

At an initial level of analysis, an instrument is no better than the individual scales that comprise it. The scales of an instrument can be evaluated in terms of reliability (as demonstrated by internal consistency and corrected item-total correlations) and in terms of preliminary indicators of validity (such as item-score-level factor structure). At the next level of analysis, as further preliminary indicators of validity, the ways in which scales interact can be addressed. Thus, scale intercorrelations can be assessed, along with higher order (i.e., scale-score-level) factor structure. Each of these elements is discussed below.

The internal consistency reliability of the WAI scales is generally good. As Table 16 illustrates, three of the six scales show a value for Cronbach's alpha at the .80 level or higher, which suggests that these scales are suitable for use in group research under the strictest standards (Nunnally & Bernstein, 1994). Using reasonable and practical standards (Cicchetti, 1994, p. 286), one of the six scales shows a value of Cronbach's alpha above .90, which indicates that it possesses an "excellent" level of clinical reliability; two scales show a value in the .80—.89 range, indicating a "good" level of clinical reliability; two more scales show a value in the .70—.79 range, indicating a "fair" level of clinical reliability. Only the Mutability scale shows a problematic value for Cronbach's alpha (.65), suggesting that Mutability scale scores should be interpreted with caution. All of this suggests that, overall, the scales of the WAI are internally consistent to a sufficient degree to support their use in research.

Within each scale, corrected item-total correlations are generally in acceptable ranges. As Table 15 shows, the median corrected item-total correlation for each scale was at the .40 level or higher. In addition, for each scale but Relation to Group, the minimum observed corrected item-total correlation was at the .30 level or higher; as shown in Table 10, the Relation to Group scale had one item (WAI item #31) for which the corrected item-total correlation was .24. All of this serves as another indication of internal consistency for each of the WAI scales (Haynes, Nelson, & Blaine, 1999, p. 138).

The item-score-level factor structure is strong, as shown in Table 10 (which included in the factor analysis only WAI items) and Appendix F (which included in the factor analysis both WAI items and Locus of Control scale items). Each item loads most strongly on the factor that pertains to its scale. This strongest loading is at least at the .30 level in almost all instances, and in most cases is much higher. In a factor analysis that included only WAI items, seen in Table 10, only in one instance is an item's strongest loading below .30 (.294, for WAI item #11, on the Mutability scale). All of this suggests that the items of the WAI cohere into scales in a manner consistent with their presupposed affiliations. This is an indicator of what has been termed internal structure reliability (Haynes, Nelson, & Blaine, 1999, p. 129) or factorial validity (Nunnally, 1978, p. 112). (It should be noted that Nunnally found the latter term problematic, and appeared to describe findings like those of the present study simply in terms of support for construct validity; Nunnally, 1978, pp. 112-113. In this, Nunnally was perhaps like Kerlinger & Lee, 2000, pp. 677, 679.)

The scales show an appropriate degree of orthogonality. This is demonstrated by the weak degree to which the scales are correlated, as shown in Table 14, where the largest correlation among the six WAI scales accounted for 7.3% of observed variance. In addition, the WAI scales are orthogonal relative to the Locus of Control scale. Relative orthogonality is demonstrated by the fact that the largest correlation of any WAI scale with the Locus of Control measure accounted for only 8.4% of observed variance. All of this suggests that the WAI scales measure different constructs, both from one another and from the Locus of Control measure. This is an indicator of discriminant validity.

The higher-order factor structure of the WAI (i.e., analyzing factor structure at the scale-total-score level) is also strong, as shown by Table 18. Each of the scales shows a strong loading at the .50 level or higher on one and only one factor. (The Locus of Responsibility scale shows a loading of .43 on an additional factor.) The eigenvalues underlying the factors account for over half the observed variance (Table 17). The factors defined by these eigenvalues are essentially orthogonal, as shown by their weak correlations with one another (Table 19), and they are easily interpretable in world view terms. All of this provides additional indications of internal structure reliability and discriminant validity for the WAI scales.

In sum, the present research indicates that the WAI items form coherent and essentially orthogonal scales, that these scales are generally internally consistent, and that these scales, in turn, form essentially orthogonal higher-order factors that are easily interpreted in

terms of world view. These findings provide some evidence suggesting construct validity for an assessment instrument (Cronbach & Meehl, 1955/1977). Thus, the present research may be judged an overall success, in terms of having fulfilled its objective of developing an instrument to assess selected aspects of world view that would fulfill accepted standards of reliability and show preliminary indications of validity. A copy of the WAI, suitable for administration, is given in Appendix G. A scoring guide, scoring summary, and brief interpretive guide are supplied in Appendix H.

Evaluation and Critique of WAI Scales

This section begins with a consideration of a problem that is present across WAI scales: a pattern of key words. Next, WAI scales are critiqued individually.

Key Word Patterns

Despite the judgment expressed above that the present research is, overall, a success, there is room for improvement. One area in which improvement can be made in each of the scales is variation in item wording. In retrospect, each scale has at least one key word or linguistic marker that serves to set many of its items apart from the other WAI scales. These linguistic markers are set forth in Table 20.

Table 20

Possible Linguistic Markers in WAI Scales

Scale	No. of Items	Key Word(s)	No. of Items Showing Key Word(s) in the WAI	
			This Scale	Other Scales
Metaphysics	10	"spirit(s)," "spiritual"	8	0
Locus of Responsibility	14	"people"	10	7
		"social group," "society"	3	0
Agency	8	"free will"	4	0
Relation to Group	12	"I," "my"	10	0
		"needs"	4	0
Relation to Authority	6	"teacher(s)," "students"	2	0
Mutability	4	"basic," "basically"	3	0
		"character"	2	0

As Table 29 demonstrates, certain words in each scale appear in that scale alone (this being the defining characteristic of a key word). This creates a situation in which it is difficult to tell whether a participant's responses to a scale's items are responses to the idea behind the items' content, or rather reflect a recognition of similar wording across a scale's items. That is, participants may be responding in an artificially consistent way to items with the same key words,

without full regard to item content. This is a potential threat to the construct validity of the instrument as a whole.

Certainly in practice a number of instruments used to assess world view have a similar problem, in that individual subscales are identifiable by key word. To name only a few of many possible examples, a key word pattern is evident on the subscales of the Individualism—Collectivism Scale (Hui, 1988), the Spiritual Orientation Inventory (Elkins, Hedstrom, Hughes, Leaf, & Saunders, 1988), and four out of five subscales of the Scale to Assess World Views (Ibrahim & Kahn, 1984).

Beyond the matter of the widespread nature of this problem in practice, is not clear whether this type of problem can be addressed in a completely satisfactory way, even in principle. For example, given the nature of the polarity addressed by the Relation to Group scale, just how much can one avoid the use of the first person pronoun, or something like it?

In sum, it would be desirable to seek improvement in this area, within whatever limits may be imposed by the nature of the subject area.

Critiques of Individual Scales

Each scale of the WAI is critiqued below. The critique of each scale involves its psychometric performance and suggestions for improvement.

Metaphysics Scale

The Metaphysics scale shows very strong internal consistency in terms of Cronbach's alpha (.91) and corrected item-total correlations (minimum r_{it} = .54, median r_{it} = .68) . Its 10 items are also equally balanced between each pole of the bipolar construct. As such, it meets the requirements set for satisfactory scales in Chapter III.

In terms of future improvement, perhaps it would be possible to add items of a concrete or behavioral nature. In addition, first person items may be included. For example, "I participate in rituals to put me in touch with a higher world," or, "Rituals meant to put one in touch with a hidden reality are just so much superstition." Greater variation in item content should be sought, even at the cost of internal consistency as measured by Cronbach's alpha; the fact that 56% of the interitem correlations on this scale were in the range .50—.70 raises some concerns regarding item redundancy (L. A. Clark & Watson, 1995, p. 316).

Locus of Responsibility Scale

The Locus of Responsibility scale shows strong internal consistency in terms of Cronbach's alpha (.80) and corrected item-total correlations (minimum r_{it} = .31, median r_{it} = .41). Its 14 items are also equally balanced between each pole of the bipolar construct. As such, it meets the requirements set for satisfactory scales in Chapter III.

In terms of improvement, it may be worthwhile to add items that expand the scope of the scale even farther (i.e., beyond the realms of employment, education, finances, and drug abuse). In addition, first

person items may be included. For example: "My health has suffered primarily because of inadequate national health care policies," or, "My current state of health has resulted primarily from my own lifestyle choices."

Agency Scale

The Agency scale shows strong internal consistency in terms of Cronbach's alpha (.81) and corrected item-total correlations (minimum r_{it} = .30, median r_{it} = 54). Its 8 items are also equally balanced between each pole of the bipolar construct. As such, it meets the requirements set for satisfactory scales in Chapter III.

In terms of future improvement, perhaps it would be possible to add items of a concrete or behavioral nature. In addition, first person items may be included. Examples of the latter might include, "I can choose to do something that goes against everything I have ever been taught," or, "I could not choose to do something against the way I was brought up."

Relation to Group Scale

The Relation to Group scale shows satisfactory internal consistency in terms of Cronbach's alpha (.77) and corrected item-total correlations (minimum r_{it} = .24, median r_{it} = .40). Its 12 items are also equally balanced between each pole of the bipolar construct. As such, it meets the requirements set for satisfactory scales in Chapter III.

In terms of future improvement, perhaps it would be possible to add items of a more general nature. For example, "It is best for people

to sacrifice their own goals for the good of the community," or, "The best motto is, 'every one for themselves'." Efforts should be made to increase scale internal consistency at least to the .80 level. Application of the Spearman-Brown Prophecy formula suggests that an increase of similar items to a total of 14 or 15 would be required to attain a reliability coefficient in the .80 range.

Relation to Authority Scale

The Relation to Authority scale shows satisfactory internal consistency in terms of Cronbach's alpha (.71) and corrected item-total correlations (minimum r_{it} = .33, median r_{it} = .46). Its 6 items are also equally balanced between each pole of the bipolar construct. As such, it meets the requirements set for satisfactory scales in Chapter III.

In terms of future improvement, perhaps it would be possible to add items of a more general nature. For example, "It is best to have a strong leader," or, "It is best to have no particular leader." Efforts should be made to increase scale internal consistency at least to the .80 level. Application of the Spearman-Brown Prophecy formula suggests that an increase of similar items to a total of 10 or 11 would be required to attain a reliability coefficient in the .80 range.

Mutability Scale

The Mutability scale shows unsatisfactory internal consistency in terms of Cronbach's alpha (.65), although it exhibits satisfactory standards for corrected item-total correlations (minimum r_{it} = .33, median r_{it} = .45). Its 4 items reflect only one pole of the bipolar

construct. As such, it fails to meet all the requirements set for satisfactory scales in Chapter III.

Despite the disappointing level of internal consistency shown by this scale, it should be noted that some other world view instruments in the literature show even lower levels of internal consistency. This is the case with one subscale of the Intercultural Values Inventory (α = .54; Carter & Helms, 1987), one of the subscales of the Individualism—Collectivism Scale (α = .41; Hui, 1988), and all subscales of the Multidimensional Belief in a Just World Scale (α ranging from .32 to .43; Lipkus, 1991). Thus, although improvement is to be sought here, the reliability of the Mutability subscale is still inside the range shown by some instruments that some researchers have found acceptable for use in psychological research, if used and interpreted with caution.

This having been said, much can be done to improve the Mutability scale. It requires items to reflect the changeable pole of the dimension. An increase in the scale's internal consistency is imperative. Efforts should be made to increase scale internal consistency at least to the .80 level. Application of the Spearman-Brown Prophecy formula suggests that an increase of similar items to a total of 9 or 10 would be required to attain a reliability coefficient in the .80 range.

Critique of Research Methodology

One aspect of the research methodology is particularly
vulnerable to criticism. This concerns the phrasing of the demographic
questionnaire.

This author has some dissatisfaction with the wording of some
of the designations for racial and ethnic categories on the demographic
questionnaire. For the present research, it was decided to implement
the designations used by the U.S. Census, as well as an adaptation of
the designations suggested by the Association of MultiEthnic
Americans (AMEA; Root, 1996b). However, some of these designations
are problematic.

In the AMEA system, ethnic groups are designated simply as
"Hispanic" and "Non-Hispanic," as if all Hispanic and all non-Hispanic
ethnic groups were, respectively, essentially equivalent. This is
completely unjustified in light of the heterogeneity present among
"Hispanics," as well as among "non-Hispanics" (S. Sue, Kurasaki, &
Srinivasan, 1999).

In addition, in the AMEA system, multiethnicity is defined in
terms of Hispanic ethnicity (i.e., people are "multiethnic" if their
parents include one Hispanic parent and one non-Hispanic parent),
again as if all non-Hispanic ethnic groups should be lumped into the
same category. These practices seem to imply that Hispanic ethnicity is
a standard of comparison, in the same way that the designations
"White" versus "non-White" do (American Psychological Association,
1994, p. 59).

Consequently, in future research, it is recommended that a more articulated series of identifiers for ethnic identity be used—presenting, for example, a list with more alternatives, perhaps like that supplied for religion in the present research. A comprehensive listing of ethnic groups in the United States as of the late 1970's is available in a work edited by Thernstrom (1980). In addition, multiethnicity should be defined in terms of this expanded list of ethnic groups. (An attempt was made to address this issue in the present research, with the use of the "Multiethnic II" designation, but this can be improved upon by using a single, more broadly defined designation for multiethnicity.)

Some additions should also be made to the list of religions. Notably, the list lacks designations for tribal religions and animism. Suitable designations as used by adherents to these traditions should be added to the list.

Recommendations for Future Validation Efforts

As is always the case with a new instrument, it is important to replicate the obtained psychometric properties of the instrument with independent samples (Haynes, Nelson, & Blaine, 1999, p. 145). Given that a participant's responses to an item are affected by the content of adjacent items (N. Schwarz, 1999, p. 96), it would be wise to replicate the obtained psychometric properties of the instrument using an alternative form of the instrument, with items mixed in a different order. There are also processes such as "cognitive interviewing" that can be used to investigate whether participants are thinking through the protocol items in a manner consistent with the intent of the

researcher (N. Schwarz, 1999, pp. 96-97). Following successful replication, further psychometric research should focus on construct validation, in its many facets.

The construct validation component of an instrument development project has been called "a never-ending process" (Anastasi, 1986, p. 4). This part of the chapter outlines approaches that can be taken for the further construct validation of the WAI scales in terms of, first, specific recommendations for assessing convergent validity on a scale-by-scale basis, second, a general recommendation for assessing discriminant validity, and third, a general recommendation for assessing temporal reliability.

Assessing the Convergent Validity of the WAI Scales

The development process described in the present study has generally followed the procedures recommended by Anastasi (1986); "validity is thus built into the test from the outset rather than being limited to the last stages of test development" (Anastasi, 1986, p. 3). Adherence to these procedures has resulted in a set of scales for the WAI that evidences both generally satisfactory internal consistency (Table 16) and satisfactory factor structure (Table 18). However, we have now arrived at the final stage of test validation, a stage beyond the scope of the present study, which "includes validation and cross-validation of various scores ... through statistical analyses against external, real-life criteria" (Anastasi, 1986, p. 3).

An ideal approach to construct validation would involve theory-based predictions of test score performance in relating WAI

scores to other observations in a wide-ranging assessment of convergent validity, discriminant validity, and predictive validity (Anastasi, 1982, 1986). Examples exist in the literature of validation projects that have followed this format successfully (e.g., Fischer, Tokar, & Serna, 1998). The problem lies in determining what it is that theory would predict regarding world view scale scores. At this stage of world view theory, we know relatively little about how world view scales should be associated with the behavior of individuals or groups; this does not provide much information to construct the "nomological net" needed to make theory-based predictions against which to validate a scale (Cronbach & Meehl, 1955/1977).

Despite this, in this section, several relatively simple predictions are made to further the validation process in terms of assessing the convergent validity of the WAI scales. The approach that is taken is to validate scales on an individual basis, assessing convergent validity by an abbreviated version of a multitrait-multimethod matrix approach (Campbell & Fiske, 1959). Discriminant validity is addressed in the following portion of the chapter. At this stage of research, we know too little about world view to address validation in terms of predictive validity. (It should be noted, however, that a procedure to assess predictive validity is outlined below, in this portion of the chapter, for the Relation to Authority scale.)

Metaphysics Scale

Two behavioral measures are relevant to the validation of the Metaphysics scale: the practice of personal prayer, and the practice of

personal rituals (e.g., reading of sacred texts, performance of rituals meant to fulfill spiritual obligations or accomplish spiritual purposes). In each case, it is predicted that individuals scoring at the Spiritualist end of the Metaphysics scale would engage in these behaviors more frequently than individuals scoring at the Materialist end. This prediction is based on the idea that prayer and other ritual behaviors have a function within a Spiritualist universe, while they are useless within a Materialist one.

It should be noted that the emphasis here is on private personal practices, as opposed to public group worship. This is because engaging in public group worship may be influenced by factors of social desirability or extrinsic religiosity (Allport & Ross, 1967), rather than resulting from a Spiritualist position on the Metaphysics dimension.

Two personality constructs are relevant to the validation of the Metaphysics scale: religious orientation and openness to mystical experience. Predictions and appropriate measures are recommended below.

Religious orientation refers to the way in which individuals are oriented to religion in general, as either a means or an end (Allport & Ross, 1967). Individuals exhibiting the extrinsic religious orientation tend to see religion in an instrumental manner, as a means to some other end (e.g., to obtain comfort when misfortune occurs, to obtain a happy life, etc.). Individuals exhibiting the intrinsic religious orientation tend to see religion as an end in itself (e.g., religion lies behind the person's entire approach to life).

It is predicted that individuals scoring at the Spiritualist end of the Metaphysics scale would, as a group, score more heavily as having an intrinsic religious orientation, while individuals scoring at the Materialist end would, as a group, score more heavily as having an extrinsic religious orientation. This prediction is based on the idea that religion as an institution would have more intrinsic value for a Spiritualist than for a Materialist. An instrument to assess religious orientation is the Inquiry Concerning Social and Religious Values (Allport & Ross, 1967).

Mystical experiences show, as a group, certain distinctive characteristics (Stace, 1960). It is predicted that individuals who score at the Spiritualist end of the Metaphysics scale will, as a group, have more mystical experiences than individuals who score at the Materialist end. In addition, it is predicted that individuals who score at the Spiritualist pole will score more highly in a measure of relative mysticality of their experiences over their lifetime. These predictions are based on the notion that mystical experiences can be made sense of within a Spiritualist universe (Walsh & Vaughan, 1993), while in a Materialist universe they can only be considered evidence of psychopathology (e.g., Fauteux, 1987; Group for the Advancement of Psychiatry, 1976; cp. Deikman, 1977), and are thus likely to be suppressed by the individual (Maslow, 1970b). An instrument to assess relative mysticality of experiences over an individual's lifetime is the Mysticism or M Scale (Hood, 1975; see also Hood, 1970). Survey questions to assess frequency of mystical experiences can be borrowed from any of numerous research studies cited by Wulff (1997).

Agency Scale

Convergent validity for the Agency scale can be addressed through the use of significant-other reports. It is suggested that this report take the form of a forced-choice response to a question about the behavior of someone else to whom the WAI has been administered ("the Participant" below), as follows:

> Which of the following best describes the Participant's behavior best when she or he makes a mistake?
>
> 1. She or he accepts responsibility for her or his actions.
>
> 2. She or he says "I had no choice" because this behavior is a habit, an instinct, or "just the way I'm put together."

It is predicted that significant others will choose the first alternative for Participants who score at the Voluntarist pole of the Agency scale, while significant others will choose the second alternative for Participants who score at the Determinist pole. These predictions follow from the conceptual definition of the Agency dimension of world view.

Relation to Group Scale

Convergent validity for the Relation to Group scale can be addressed through the use of significant-other reports. It is suggested that this report take the form of forced-choice responses to questions about the behavior of someone else to whom the WAI has been administered ("the Participant" below), as follows:

When the Participant sees a conflict of interest between something you want and something that the Participant wants, whose wish gets met?

1.   The Participant's.

2.   Yours.

When the Participant sees a conflict of interest between something his/her family wants and something that the Participant wants, whose wish gets met?

1.   The Participant's.

2.   The Participant's family's.

These kinds of questions can be reframed in terms of other conflicts of interest, such as those between the Participant and the Participant's spouse/partner/romantic interest, children, work group, friends, and so forth. It is predicted that, for each type of conflict of interest, the first alternative will be chosen by significant others more frequently in reference to Participants who score at the Individualist pole of the Relation to Group scale, while the second alternative will be chosen more frequently in reference to Participants who score at the Collectivist pole. These predictions follow from the conceptual definition of the Relation to Group dimension.

Three behavioral measures are also suggested for use in validating this scale. First, it is predicted that formal charitable contributions (e.g., to social service agencies or religious organizations; not including political contributions), as a percentage of after-tax income, will differ for Individualists and Collectivists, with the latter donating more. Second, it is predicted that informal charitable donations (e.g., to homeless individuals) will differ for Individualists

and Collectivists, with the latter donating more. Third, it is predicted that Collectivists will spend more of their personal time volunteering in not-for-profit community service projects (e.g., soup kitchens) than Individualists (based on a suggestion by K. M. Schmid Koltko-Rivera, personal communication, March 27, 2000). These predictions follow from the conceptual definition of the Relation to Group dimension.

Locus of Responsibility Scale

Convergent validity for the Locus of Responsibility scale can be addressed through the use of significant-other reports. It is suggested that this report take the form of forced-choice responses to questions about the behavior of someone else to whom the WAI has been administered ("the Participant" below), as follows:

When the Participant complains about her or his opportunities for success in life, who or what gets blamed?

1. The Participant's behavior or character.

2. Larger social forces (for example, prejudice or favoritism).

It is predicted that the first alternative will be chosen by significant others more frequently in reference to Participants who score at the Internal pole of the Locus of Responsibility scale, while the second alternative will be chosen more frequently in reference to Participants who score at the External pole. These predictions follow from the conceptual definition of the Locus of Responsibility dimension.

A behavioral measure is also suggested for use in validating this scale. It is predicted that individuals who score at the External pole on

the Locus of Responsibility scale will participate more frequently as members of certain types of social change organizations (e.g., those focused on equal economic opportunity) than individuals who score at the Internal pole. This prediction follows from the notion that Externals would see the source of obstacles to success in life as residing in social forces, rather than in people's character or personal behavior. For practical reasons, it may be necessary to restate the prediction as follows: People who participate in certain types of social change organizations are more likely to score as External on the Locus of Responsibility scale than others.

It should be noted that the predicted difference does not hold for Internals versus Externals in relation to the Locus of *Control* scale (which primarily pits the individual against luck, rather than societal forces). Consequently, a finding of differences in the predicted direction for the Locus of Responsibility scale, accompanied by no differences for the Locus of Control scale, would be evidence of discriminant validity for the Locus of Responsibility scale.

Mutability Scale

A behavioral measure is relevant to the validation of the Mutability scale: engaging in personal counseling or psychotherapy as a client. It is predicted that more individuals scoring at the Changeable end of the Mutability scale would engage in this behavior than individuals scoring at the Permanent end. This prediction is based on the idea that striving to change one's habits or character through the external influence exerted in counseling or therapy makes sense in a

Changeable universe, while this would be a futile enterprise within a Permanent one.

It should be noted that the emphasis here should be on the reading of self-help books about changing habits or personality traits (i.e., acquiring more beneficial ones, or eliminating those with deleterious or self-destructive consequences). Books that are not included in this category involve advice on how to succeed in business or investments, or other non-character-relevant self-improvement.

Relation to Authority Scale

Convergent validity for the Relation to Authority scale can be addressed through the use of significant-other reports. It is suggested that this report take the form of forced-choice responses to questions about the behavior of someone else to whom the WAI has been administered ("the Participant" below), as follows:

> Which of the following best describes the Participant's behavior with her/his children?
>
> 1.   The Participant sets the rules for the children to follow.
>
> 2.   The Participant sets the rules in conjunction with the children.

This kind of questions can be reframed in terms of other relationships, such as those between the Participant and the Participant's spouse/partner/romantic interest, co-workers, students, and so forth. It is predicted that, for each type of conflict of interest, the first alternative will be chosen by significant others more frequently in reference to Participants who score at the Linear pole of the Relation to

Authority scale, while the second alternative will be chosen more frequently in reference to Participants who score at the Lateral pole. These predictions follow from the conceptual definition of the Relation to Authority dimension.

A predictive validity measure is also appropriate for use with the Relation to Authority scale. It is predicted that, in a period where military service is voluntary, more Linear-scoring individuals than Lateral-scoring ones (as assessed at or before the beginning of training) will successfully develop a career in the armed forces. This prediction follows from the notion that the military functions as an inherently Linear organization, and as such is a better fit for Linear-scoring individuals than for Lateral-scoring ones.

Discriminant Validity for the WAI Scales

A procedure has been outlined above for the assessment of discriminant validity for the Locus of Responsibility scale in reference to the locus of control construct. In addition, all WAI scales can be assessed for discriminant validity in reference to social desirability response tendencies. Instruments for the assessment of social desirability response set include the Marlowe—Crowne Social Desirability Scale (Crowne & Marlowe, 1964) and other scales adapted by Fischer, Tokar, and Serna (1998). It should be noted, however, that an undue concern with response sets is not recommended: "Rather, the extent of external validity is the most important determinant in self-report questionnaires" (Butcher, 1999, p. 162).

It is, of course, important in scale development to know not only what a scale measures, but what it does not, and to use this knowledge to assess validity, both convergent and discriminant (Butcher, 1999; L. A. Clark & Watson, 1995; Haynes, Nelson, & Blaine, 1999). However, at this stage of our knowledge regarding world view, it is difficult to tell what relationships should—or should not—exist between, on the one hand, dimensions of world view, and, on the other hand, constructs such as personality traits, cognitive characteristics, behaviors, or even psychopathological symptoms. Consequently, it is difficult to determine what it is that world view dimensions should *not* covary with—except, in some cases, other world view dimensions. And this may be, for the near term at least, the best test of discriminant validity: the mutual relative orthogonality of measures of different world view dimensions.

The WAI Scales as Measures of Traits, Not States

An additional evidence of construct validity mentioned by Cronbach and Meehl (1955/1977) may be termed "temporal reliability," that is, stability over time, as assessed by test-retest reliability coefficients. (The term "temporal reliability" is meant to distinguish this form of reliability from measures of internal consistency, which is also considered a form of reliability; Haynes, Nelson, & Blaine, 1999, p. 129.) Temporal reliability is particularly important to assess for world view measures as part of the construct validation process, because it seems reasonable to consider world view as a relatively permanent trait, not an ephemeral state. One would expect world view to remain

constant, at least after young adulthood, with the exception of, at most, the intervention of such events as trauma, religious conversion, intensive psychotherapy and counseling, or thought reform.

Consequently, it is to be expected that world view, for most adults, should remain constant over periods far longer than the two weeks that are so often part of the assessment of the temporal reliability of an instrument. Thus, the period over which temporal reliability should be assessed should be substantially longer. In accordance with recent findings in the study of attitude development, which indicate that political attitudes are least susceptible to change in roughly the age range of 40 to 60 years (Visser & Krosnick, 1998), perhaps one appropriate test of temporal stability in world view would be a test-retest comparison with a sample of participants in the 40-to-60-years-old age range, with a period between assessment trials of at least one year. The expected level of temporal reliability would be very high (.90 and above).

Sample and Population World Views

Although the American population was not systematically sampled in the present study, nonetheless the participants represent a fairly diverse sample. Data was gathered across four states in the Northeast, Far West, and Deep South, from people predominantly with some college or university education (73.9%), particularly at secular public and private universities drawing from a wide spectrum of the general public (60.5%; Table 8). Thus, although we cannot confidently generalize to the American population at large, we can use

these data to give us something of an educated guess, at least, concerning American world views among those with some college education.

Participant world views as revealed in the sample data will be focused upon in terms of two areas of interest. These are the notable skews seen in the direction of the Voluntarist and Spiritualist positions.

The Voluntarist Skew

As shown in Table 13, the greatest skew (-.88) in participant responses on the WAI concerns the Agency scale. As a group, the participants clearly showed a preference for the Voluntarist position, reflecting the belief that human beings have free will to choose at least some of their behaviors. Indeed, as shown in Tables 12 and 13, 96% of the sample scored in the Voluntarist range on the Agency scale, with the mean score being quite high (46.25, with possible scores ranging from 8 to 56). Making a highly tentative logical leap in generalizing from the sample to American values in general, what would be the meaning and consequences of a highly Voluntarist skew to American values?

At present, it is not possible to know whether this Voluntarist skew would be something distinctly American, or whether a similar skew would be found across national boundaries; that is a question to be addressed by researchers in multicultural psychology and sociology. However, an interesting question is raised by these data for professionals in counseling and psychotherapy.

It has been asserted that a thoroughgoing determinism is basic to the outlook of a scientific psychology (Kimble, 1989/1998, p. 20). Perhaps as a consequence of this position, it has also been asserted that virtually all systems of psychotherapy, including humanistic approaches, are founded upon the implicit assumption of determinism (Slife & Williams, 1995). As controversial and, perhaps, inaccurate as this assertion might be (particularly with regard to humanistic approaches; Rychlak, 1979, 1997), it does highlight the notion that many approaches to psychotherapy (particularly psychodynamic or behavioral approaches, at the least) seem to have a profoundly determinist bent. Given this, the question arises, is there a contradiction involved in applying therapeutic treatments whose philosophies of treatment are based on an assumption of determinism to a client base that clearly embraces an assumption of voluntarism? And, if so, what are the therapeutic consequences of this contradiction?

This is a matter of no small importance. It bears on questions such as the ethicality of conducting therapy from a philosophical stance that is opposed to many clients' values and world views. For that matter, this issue raises the question of the integrity of conducting therapy from a philosophical stance that may be opposed to many *therapists'* values and world views.

This matter is deserving of attention from theorists in the ethics and philosophy of psychology, psychotherapy, and counseling. For the professional practitioner, it would be appropriate and ethical to think through the practitioner's stance on matters of human agency, and to address such matters in a thoughtful way with clients. Given the

assertion expressed by some that successful psychotherapy, rather than being based on determinist notions, is actually founded on a voluntarist base in philosophy (Bakan, 1996; Rychlak, 1979), it might be useful for theoreticians across schools of psychotherapy to investigate and explicate the interwoven themes of determinism and voluntarism that run through their different approaches.

The Spiritualist Skew

The second greatest skew (-.55) to be noted in participant responses on the WAI concerns the Metaphysics scale (Table 13). As a group, the participants clearly showed a preference for the Spiritualist position, reflecting the belief that there is a real but spiritual realm in which the material world is deeply immersed. As shown in Tables 12 and 13, 77% of the sample scored in the Spiritualist range on the Metaphysics scale, with the mean score being somewhat elevated (48.19, with possible scores ranging from 10 to 70). Making another highly tentative logical leap in generalizing from the sample to American values in general, what would be the meaning and consequences of a notable Spiritualist skew to American values?

Here again, without comparative data, it would be difficult to tell whether this would be truly an American phenomenon or one that crosses international boundaries, a question that awaits the attention of researchers. However, yet again, this response skew underlies a matter of interest to the practitioner of psychotherapy and counseling.

It has long been noted that there appears to be a conflict between the ideologies underlying many psychotherapeutic approaches and

traditional value positions in the general population, particularly as regards religion and spirituality, such that client beliefs about spirituality have often been ignored or denigrated (Bergin, 1980a, 1991; Giglio, 1993). Given the prevalence of the Spiritualist position among the sample (and, perhaps, the general population), this implies that psychotherapists may be violating their ethical mandate to respect client world views (American Psychological Association, 1992; note particularly Section 1.08: Human Differences, and Section 1.09: Respecting Others).

Besides the ethicality issue, the issue of therapy effectiveness is raised. It has been noted that apparently effective, spiritually-based forms of emotional healing have a long history, both in European cultures (Ehrenwald, 1976; Ellenberger, 1970) and in indigenous cultures worldwide (Davis, 1998; Halifax, 1979; Nicholson, 1987; Voss, Douville, Little Soldier, & Twiss, 1999). It may be that psychotherapists who fail to address client spirituality in order to help clients with their presenting issues thereby ignore a potentially powerful therapeutic ally—the client's own Spiritualist belief system.

Leading practitioners of multicultural counseling and psychotherapy have consistently noted the therapeutic importance of working with a client's spiritual beliefs and practices, rather than ignoring them or working against them (American Psychological Association, 1993; Delgado, 1979; Gerber, 1994; Lee & Armstrong, 1995; D. W. Sue & D. Sue, 1999; Voss, Douville, Little Soldier, & Twiss, 1999). The time is long overdue for psychotherapists and counselors, whether working in a multicultural mode or not, to learn how to gain

therapeutic leverage from their clients' spiritual groundings. This is something that some practitioners have said for some time (Bergin, 1980a, 1980b, 1991; Butler & Harper, 1994; Koltko, 1990; Lovinger, 1984, 1990; Parker, 1996; Waldfogel & Wolpe, 1993; Weber & Cummings, 1999), and which has lately been the focus of several major works published by the American Psychological Association (W. R. Miller, 1999; Richards & Bergin, 1997, 2000; Shafranske, 1996).

Higher-Order Structure of World Views

A serendipitous finding of the present study involved the higher-order structure of world views (Tables 17 and 18). The three factors that emerged from the scale-score-level factor analysis happened to be easily interpretable in terms of differing visions of the metaphysical background of life (Factor 1, Vision of Life), the influences that determine a person's position and outcomes in life (Factor 2, Power in Life), and the pathways one might take through life, in terms of relating to authority, to one's own human nature, and to societal influences on one's success in life (Factor 3, Pathways through Life).

Although the reliability of these factors is yet to be determined, the presence of interpretable higher-order factors is itself an indirect argument for validity, both in terms of the conceptual approach to world view taken in the present study, and in terms of the psychometric strength of the WAI. However, the precise nature of these factors raises intriguing questions. Clearly, these factors capture three powerful clusters of world view beliefs. But why should the

particular beliefs in these clusters hang together? The remainder of this part of the chapter investigates this question with regard to each of the three higher-order factors on the WAI.

Factor 1: Ontology, Volition, and Ethics

Factor 1 includes three scales: Metaphysics, Agency, and Relation to Group. Someone who scores high on this factor holds a Spiritualist position in terms of ontological Metaphysics (i.e., reality is immersed in the spiritual), a Voluntarist position on Agency (i.e., people have free will), and a Collectivist position on Relation to Group (i.e., one's reference group's agenda has priority over one's own). Conversely, someone who scores low on this factor holds a Materialist position in terms of ontological Metaphysics (i.e., reality is purely material), a Determinist position on Agency (i.e., human behavior is completely determined), and an Individualist position on Relation to Group (i.e., one's personal agenda has priority above that of one's reference group).

Why should these world view beliefs cluster together in this fashion? There are two explanations that come to mind to explain this phenomenon: one based on naive reasoning, and one focused on historical factors.

The "Naive Reasoning" Explanation for the Structure of Factor 1

One explanation for the structure of Factor 1 proposes that, in some fashion, a particular position on one or more of these scales somehow seems to logically imply the other world view positions that cluster with it in Factor 1. For example, perhaps there is something

that seems logically consistent about the Spiritualist and Voluntarist positions, on the one hand, and the Materialist and Determinist positions, on the other. As it happens, from the point of view of naive reasoning (i.e., logic applied by a non-specialist in an everyday way), there is some support for this position.

In a Spiritualist universe, by definition, there is something separate from matter—spirit—in which consciousness of some sort is thought to reside. In some cultural traditions, this is the nature of the personal "soul" (Greek ψυχη, *psyche*). This is what purportedly enables non-corporeal, spiritual beings (e.g., the "spirits" that many religious traditions mention) to think and act. Without spirit, in a Materialist universe, it seems difficult, in a naive reasoning way, to "locate" consciousness and agency; on a more sophisticated level, this has lead some theorists to consider consciousness as some sort of chemical epiphenomenon (Rychlak, 1997). Thus, as naive psychologists, it may seem logical to people to hold Spiritualist and Voluntarist beliefs together, and thus also to hold Materialist and Determinist beliefs in tandem. However, this line of reasoning does not explain the covariance of Collectivist beliefs with Spiritualist and Voluntarist ones.

An objection may be raised to the "naive reasoning" explanation for the structure of Factor 1 on the grounds that there is a philosophical stance that firmly opposes a Spiritualist orientation in favor of a Materialist one, and that yet provides support for the Voluntarist and Collectivist belief positions. This is the stance of philosophical Marxism. Marxism takes a rigorously Materialist position on the Metaphysics dimension (Marx, 1932/1978a, pp. 115, 121; 1964/1978b, p.

172), but at the same time holds to a Voluntarist position regarding agency (Marx, 1888/1978c, p. 144, 3rd Thesis on Feuerbach), and clearly emphasizes the importance of the group's agenda over the individual's (Marx & Engels, 1888/1978, p. 490). Thus, at least on strictly logical grounds, there appears to be little or no difficulty in combining Materialist, Voluntarist, and Collectivist beliefs.

However, to the present author, this objection is misdirected. The naive reasoning explanation does not state that there is *actually* a logical contradiction to combining, for example, Materialist and Voluntarist beliefs. The naive reasoning explanation merely states that *to the naive reasoner it appears* that there is a logical contradiction. The factor analysis reported in Table 18 reports how the participants understand the world, on the basis of what they believe—not on the basis of what is actually logical or not. Consequently, objections to the naive reasoning explanation on the grounds that naive reasoning may not actually be correct or logically consistent are irrelevant. It is possible that, were this survey to be made among populations where philosophical or political Marxism hold sway, a very different factor structure would be noted—a matter for future research to explore.

In sum, the naive reasoning explanation shows no obvious contradictions, but fails to explain the entire phenomenon. Naive reasoning may have some role in explaining the structure of Factor 1. However, other explanations also need to be called into play. As it happens, at least one other explanation is also available.

Historical Explanations for the Structure of Factor 1

As shown in Table 9, 65.5% of participants described themselves as Christian, and 9% of participants described themselves as Jews. (No other identifiable religious tradition accounted for as much as 3% of the sample.) Thus, approximately three quarters of the sample described themselves as being a part of what has been called the Judaeo-Christian tradition, and it would be reasonable to expect that their world view beliefs would be colored by that historical background. As it happens, Jewish and Christian beliefs, historically speaking, have tended to strongly endorse Spiritualist, Voluntarist, and Collectivist beliefs simultaneously.

The oldest Jewish literature, the Hebrew Bible (*Tanakh*, 1985), describes in several places the use of spiritual powers (e.g., Exodus chapters 7-10), and encounters with spiritual beings (e.g., Genesis 3:24; 21:17; Ezekiel chapter 1). A massive amount of ancient Jewish homiletical literature assumes the existence of free will (e.g., in the Bible, Exodus chapter 20; in the Talmud, tractate *Pirkei Avot*). Putting the welfare of others ahead of one's own self-interest is also an ethical staple of Jewish literature, whether considered in the biblical period (Exodus 20:13, verse 15 in Christian bibles; Leviticus 19:11, 13; 25:14), the Talmudic period (as in the maxim, "Do not keep yourself aloof from the community"; *Pirkei Avot* 2:5; Birnbaum, 1949, p. 486), the late medieval period (as Rabbi Eliezer said, "Oh my friend ... you are thinking only of yourself. How about forgetting yourself and thinking of the world?" Buber, 1958/1966, p. 162), the Renaissance (Luzzato,

1966/1973), or modern times (as Martin Buber put it, "You cannot really love God if you do not love men" [sic], Buber, 1958/1966, p. 233).

Christianity inherited some of the beliefs of Judaism, elaborating upon them in the New Testament (*The Holy Bible*, 1611/1979). For example, the New Testament describes encounters with spiritual beings and powers (Luke 1:11, 26; Mark chapters 4-7; Revelation chapter 4). A large homiletical literature assumes the existence of free will (e.g., the New Testament epistles of James and Peter, and many chapters of the letters of Paul). A strong emphasis is placed upon service over self-interest (as Jesus is reported to have said, "whosoever will be chief among you, let him be your servant," Matthew 20:27; 6:33). A similar focus is seen in the sacred writings of more recently organized Christian groups. For example, Latter-day Saint scriptures describe encounters with spiritual beings (*The Book of Mormon*, 1830/1981, 1 Nephi chapter 11), the reality of free will (*The Pearl of Great Price*, 1851/1981, Moses 4:3), and the value of service (e.g., "when ye are in the service of your fellow beings ye are only in the service of your God," *The Book of Mormon*, 1830/1981, Mosiah 2:17).

Thus, one plausible explanation for the structure of Factor 1 of the WAI is that the three scales (Metaphysics, Agency, and Relation to Group) are correlated due to an unseen fourth variable: the influence of organized religion in the Judaeo-Christian tradition. That is, the influence of Jewish or Christian organized religion is such as to promote certain positions on these three scales in a consistent way, hence these beliefs would tend to cluster together to form a single

factor. This is a statistically sound explanation (Weinberg & Goldberg, 1990, p. 119), as far as it goes.

However, this explanation raises another issue very quickly. Although a comprehensive review of religious cultures is well beyond the scope of this dissertation, inspection of the survey literature suggests that *all* major world organized religious traditions now extant have held to very similar belief positions on the three dimensions under consideration (H. Smith, 1991; see also M. Adler, 1986). This is certainly the case, as exemplified by an investigation of central sacred texts, with Islam (Rodwell, 1909/1994), Buddhism (Byrom, 1993; Tenzin Gyatso, 1995), and Hinduism (B. Miller, 1986). (There are exceptions to this rule, such as the occult 'magickal' tradition known as Thelema, and the Church of Satan, each of which adopts a strongly Individualist position; Crowley, 1938/1976; LaVey, 1976. However, these exceptions are in general relatively recent and minor influences on the religious scene.) Thus, the historical explanation, which is based on the historical specifics of the Judaeo-Christian tradition, turns out to apply, equally well, across all other major traditions.

This situation naturally begs the question, why do all major religious traditions, which differ in so many other ways, agree on these world view positions? Wilson (cited in Hood, Spilka, Hunsberger, & Gorsuch, 1996, p. 379) and others (e.g., Wright, 2000) have asserted sociobiological explanations for many religious beliefs, including altruism and communalism, on the grounds that such beliefs are adaptive for the group as a whole. Sociobiological explanations may have some explanatory power, but other explanations are also possible.

Such an important question lies well beyond the scope of this dissertation, but may be approached by theory or research in the psychology of religion and social psychology, as well as by the disciplines of philosophy of religion (Schuon, 1953; H. Smith, 1992), history of religion, comparative religion, and theology.

For our purposes, however, the begged question may not be crucial. It will suffice to say that the beliefs held to by the historical traditions of Judaism and Christianity are such as to facilitate the formation of a belief cluster such as that which we see in Factor 1 of the WAI.

The historical explanation also sheds some light on the matter of why the other scales of the WAI do *not* load significantly on Factor 1. Quite simply, the Jewish and Christian traditions are ambivalent concerning the world view positions represented by the other scales.

In terms of Locus of Control and Locus of Responsibility, for each of these traditions, sometimes positive or negative circumstances are a result of a person's actions, but sometimes they are due to external circumstances, such as chance, social injustice or bias, or the grace or will of God. (In the Hebrew Bible [HB], see Ecclesiastes 9:11, and the book of Job; in the New Testament [NT], see John 9:1-3.)

The exhortation to personal repentance is integral to both religious traditions (HB: Isaiah 1:16; NT: Matthew 3:2), which would seem to imply that, overall, human nature is mutable. Nonetheless, each tradition seems to recognize that change can be so difficult that, in practice, it is as if human nature were permanent (HB: Proverbs 22:6; NT: Acts 26:28).

In terms of Relation to Authority, each tradition has stated that God's authority is supreme and unconditional, implying a linear relation between God and people (HB: Psalms 83:19, verse 18 in Christian bibles; NT: Luke 6:35). However, each tradition has also stated that, in the eyes of God, all people are equivalent, implying a lateral relation between people (HB: Deuteronomy 1:17 and Proverbs 24:23; NT: Romans 2:11 and 1 Peter 1:17).

In sum, the historical explanation appears to be able to explain both why some of the WAI scales load heavily on Factor 1, and why the other WAI scales do not load significantly on Factor 1. As it happens, explanations for the reasons underlying the loadings noted on Factors 2 and 3 proceed from very different bases.

Factor 2: Who Runs the Show?

The belief cluster seen in Factor 2 is relatively easy to explain. Both the Locus of Responsibility dimension and the Locus of Control dimension speak to the matter of which powers are most influential in life: the efforts exerted by, and the personal characteristics of, the individual, or other powers, such as the political or social environment, or sheer luck. This similarity in theme is what joins the two respective scales in Factor 2, despite the difference between them.

This difference involves the nature of the external forces that impinge upon the individual. The Locus of Responsibility scale pits the individual against social forces such as prejudice and bias. The Locus of Control scale items that survived the item selection process contrast the power of the individual against luck.

It is notable that the Locus of Control items that survived the item selection process long enough to be entered into factor analysis with the WAI items represent a slight narrowing of the original conception of locus of control. Locus of control, as implemented in the I-E Scale (Rotter, 1966), contrasted the power of the individual against the power of several external forces, including not only luck (6 items), but also accident or chance (2 items), petty personal prejudice (3 items), the social power structure (2 items), fate (1 item), unfairness (1 item), a "balancing" force (1 item), and unknown forces (7 items). The item selection process described in Chapter III of the present study resulted in the survival only of items dealing with luck, which was the specified external force that was represented by the most items on the original I-E Scale. Thus, although the Locus of Control items used in the present study represent a narrowing of the original conceptualization of the construct, nonetheless these items seem to represent the core of the construct as it was implemented in Rotter's instrument.

In sum, Factor 2 is composed of scales that speak to a joint issue from slightly different perspectives. The factor is easy to interpret and to explain.

Factor 3: Fluid and Fixed Roles in Life

Factor 3 presents the researcher with a seemingly unrelated bundle of scales: Mutability, Relation to Authority, and Locus of Responsibility. Someone who scores high on this factor holds a Changeable position on Mutability (i.e., human nature is changeable), a

Lateral position on Relation to Authority (i.e., preference for egalitarian authority structures), and an External position on Locus of Responsibility (i.e., societal factors strongly influence one's opportunities in life). Conversely, someone who scores low on this factor holds a Permanent position on Mutability (i.e., human nature is not changeable), a Linear position on Relation to Authority (i.e., preference for hierarchical authority structures), and an Internal position on Locus of Responsibility (i.e., personal behavior and characteristics are what create success in life).

Why should these world view beliefs cluster together in this fashion? Although at first they seem unrelated, these beliefs reflect an underlying theme that unites them into one coherent factor. This theme seems to involve the matter of whether roles in life are relatively fixed or fluid.

Seeing roles in life as relatively fixed is consistent with a Permanent position in terms of the Mutability dimension: one's role stays constant, so there is no need to change one's basic nature in order to fit the needs of the role; indeed, a change in one's nature could very well threaten one's ability to fulfill the role as one has done so to date. A fixed approach to roles in life is also consistent with a Linear position in terms of Relation to Authority: if one's role is fixed, one needs to relate to others in a consistent way, where one's position relative to others is known and unlikely to change. Finally, a fixed approach to roles in life is consistent with an Internal position in terms of Locus of Responsibility: if transient and changing societal factors are not

relevant to success, then one does not have to change one's role in order to address them.

On the other hand, seeing roles in life as relatively fluid is consistent with a Changeable position in terms of the Mutability dimension: one's role may change, therefore it may be necessary to alter one's habits or character in order to fit the needs of the role. A fluid approach to roles in life is also consistent with a Lateral position in terms of Relation to Authority: if one's role may change, different people may need to act in supervisory or supporting roles in relation to oneself. Finally, a fluid approach to roles in life is consistent with an External position in terms of Locus of Responsibility: if transient and changing societal factors are highly relevant to success, then one may well have to change one's role in order to address them.

Thus, Factor 3, which in content addresses ways in which the individual may choose to navigate pathways through life, on another level seems to be structured around two different approaches to roles in life. In this light, the structure of the factor is not difficult to understand.

Use of the WAI in Counseling and Psychotherapy Research

This section considers applications for the WAI in counseling and psychotherapy research. The need for theory to guide world view research is addressed. Cautions are given regarding the use of the WAI as an assessment technique within an etic approach to culture. An appeal is made for descriptive world view research in counseling and psychotherapy. Attention is then paid to descriptive and hypothesis-

testing research in "generic" (i.e., monocultural) psychotherapy and counseling. Following this, consideration is given to descriptive and hypothesis-testing research in multicultural counseling and psychotherapy. Finally, some implications that this research would have for counseling and psychotherapy are outlined. (Research suggestions for other areas of psychology are found in Appendix I.)

Theory-Driven Research and the WAI

Given that the WAI has been evaluated, in a preliminary way, in terms of reliability and validity, the time has come to consider applying the instrument in research. The bulk of the remainder of this chapter (as well as Appendix I) is concerned with suggestions for such research applications. However, before moving on to those suggestions, it is important to consider the role of theory in driving research that addresses the world view construct.

"The basic aim of science is theory" (Kerlinger & Lee, 2000, p. 11). In turn:

> Theory, broadly defined, refers to a conceptualization of the phenomena of interest. The conceptualization may encompass views about the nature, antecedents, causes, correlates, and consequences of a particular characteristic or aspect of functioning. Also, the theory may specify the relations of various constructs to each other. There are different levels of theory in terms of their breadth, generality, and scope of affect, cognition, and behavior they attempt to encompass. (Kazdin, 1999, p. 8)

Such theory guides research by generating testable hypotheses and organizing the resultant obtained facts (Kerlinger & Lee, 2000, pp. 13-14).

Thus, taking all these notions of theory and research into account, it is clear that the best research using the WAI would be driven and directed by a theory of world view that provides a conceptualization of the nature of world view, the "causes, correlates, and consequences" (Kazdin, 1999, p. 8) of holding a given world view, and that specifies the relation of world view to other psychological constructs, including processes of affect, cognition, and behavior. However, here is where the would-be WAI researcher encounters a serious problem: no such theory has heretofore been described in the literature.

The literature reviewed in Chapter II and Appendix A (and recast in Appendix B) does not constitute many, or even one, formal theory of world view. This literature is actually a collection of models, each *describing some components of* the world view construct, models in which very little, if anything, was said *relating other constructs to* the world view construct—which would constitute a formal theory. To construct a psychological assessment instrument, a psychometrician needs a model, of which we have seen many. However, to carry out a research program, a researcher needs not just models but theories, of which we have seen none. This hamstrings the would-be researcher of world view; for, without a theory, a researcher cannot even decide upon an appropriate hypothesis to test (Serlin, 1987, p. 365).

Some might claim that the personal construct psychology of George A. Kelly (1955) constitutes a theory of world view. It is certainly the case that Kelly's "personal constructs" are what the present study calls world views. However, two factors combine to exclude Kelly's

work as a full-scale theory in the sense indicated in the quotation from Kazdin, above. Kelly deliberately avoided relating "personal constructs" to important constructs (as the term is usually defined) in psychology: "In this new way of thinking about psychology, there is ... no *motivation*, no *emotion*, no *cognition*, ... no *ego*" (Kelly, 1963, p. xi, emphases in original). In addition, Kelly postulated no specific widely-held world view dimensions. Kelly's work (with its fundamental postulate and many corollaries concerning personal constructs) constitutes a sort of prolegomena to a more comprehensive world view theory, without being such a theory itself.

Thus, it is the case within the study of world view as it is for some other important areas of human psychology: "the cry for good theory has reached the level of cacophony" (Hood, Spilka, Hunsberger, & Gorsuch, 1996, p. 446). Although it cannot be said that the present author has answered that cry, an attempt has been made to address the need for formal theory regarding the world view construct. Beginning with a few notions that are implicit in much of the reviewed literature, and explicit in a few places (e.g., Treviño, 1996), the present author has outlined a preliminary theory of world view, which may be found in Appendix J. The research questions and hypotheses that follow, in this chapter and in Appendix I, are broadly based on this theory. Researchers may find the WAI useful, not only in addressing the specific hypotheses and research questions outlined herein, but to test the extent to which this theory accords with the realities of world view phenomena.

Cautions Regarding the Use of the WAI as an Etic Instrument

An important caveat must be given regarding the use of instruments like the WAI. As mentioned earlier, the WAI is based on an implicitly etic model of research, which attempts to study behavior using categories derived from outside the cultural/conceptual system in which the behavior is embedded (Veroff & Goldberger, 1995, p. 15). While there is much value in etic approaches, there are also certain inherent risks involved.

> The etic approach assumes that the variables of interest … and the ways of assessing these are not so imbedded in the researcher's own culture or value system as to be inappropriate, inapplicable, or meaningless in a different culture. Such assumptions inherently run the risk of importing theories and values from one culture to another and "measuring" the culture under consideration by comparing it with the researcher's culture. (Veroff & Goldberger, 1995, p. 15)

Thus, the burden of proof falls on the researcher, in any given project, to ascertain that the dimensions assessed by the WAI are appropriate, applicable, and meaningful in the culture of the participants involved in the research. It also is the responsibility of the researcher to demonstrate that the assumptions involved in the assessment format used in the WAI are justified for use with their participants (e.g., participants can rank their psychosocial judgments along a linear continuum; Lonner & Sundberg, 1985; see "Limitations of the Present Research" in Chapter III of the present work).

The Value of Descriptive Research

A case could be made that, at this stage of world view research, exploratory studies are to be recommended over hypothesis-testing studies. It has been noted that

> It is unclear at this time which of the dimensions of cultural variation [i.e., which world view dimensions] are of the greatest significance [for counseling and therapy]. Nor do we know how these dimensions must be incorporated in our thinking about counseling and therapy. Much research remains to be done on these issues. (Triandis, 1985, p. 21).

Under circumstances like these, it could be argued that we need to learn more about the construct through descriptive studies before we make hypotheses about the construct.

As it happens, a small literature has developed concerning world view differences specifically as found between clients or potential clients and counselors or counselor trainees (e.g., Mahalik, 1995; Mahalik, Worthington, & Crump, 1999). Conducted in the Kluckhohn model, some researchers have found that, in an essentially monocultural White sample, counselors and clients differed in world view (Mau & Pope-Davis, 1993). This finding paralleled other research, conducted within the Sue model, which also found client—counselor world view differences (Latting & Zundel, 1986). This type of research regarding client—counselor differences is important to replicate with the dimensions assessed in the WAI—dimensions which, it has been argued here, are particularly relevant to the work of the practicing psychotherapist and counselor. (For that matter, numerous descriptive studies suggest themselves concerning other sorts of dyads and groups. What is the effect of world view similarity or difference on satisfaction

or endurance within a marriage, family, or work or therapy group? Such studies are based in part on suggestions by K. Schmid Koltko-Rivera, personal communication, March 27, 2000.) Despite the importance of such descriptive research, in the interest of describing research about the construct from as many directions as possible, plausible hypotheses will be outlined in each subsection below.

World View in Generic Therapy Research

The term "generic" here follows the usage of Ibrahim (1991). That researcher employed the term to refer to counseling and psychotherapy that was not specifically focused on culturally diverse populations or multicultural concerns.

Research in psychotherapy and counseling is centered on the examination of the process and outcome of therapy (Lambert & Hill, 1994). That is, this research typically focuses on one of two basic questions: 1) "What happens *during* therapy?," the topic of process research, or, 2) "What happens *after* therapy?," the focus of outcome research. Within process research, world view can be conceptualized as an important independent variable. Within outcome research, world view can be conceptualized as either an independent variable or as a dependent variable.

This subsection considers the use of world view theory and the WAI to address research questions in generic counseling and psychotherapy, and contains four portions. The first portion addresses world view as an independent variable in process research. The second portion takes up world view as an independent variable in outcome

research. The third portion considers world view as a dependent variable in outcome research. Finally, in the fourth portion, an approach is described that implements world view theory and the WAI in accordance with a paradigm that has been much honored in the literature but rarely applied: the so-called "matrix paradigm" for therapy outcome research (Paul, 1967; Stiles, Shapiro, & Elliott, 1986).

Process Research with World View as an Independent Variable

Using world view as an independent variable, process research would address the following fundamental issue: How do therapist and client world views affect counselor and client perceptions, cognitions, affects, behaviors, and interactions that occur during therapy sessions? Typical dependent variables used in process research include: a) type and frequency of verbal response modes used by the therapist or the client, b) use and frequency of specific techniques by therapist, such as interpretation of transference, c) intentions of therapist, d) therapist-offered empathy, e) vocal quality of client, f) emotional reaction of client, g) agreement between client and therapist regarding goals and tasks, and h) frequency of, for example, dominance and affiliation behaviors by client and therapist (Lambert & Hill, 1994). In addition, process research has considered as dependent variables such "impression" variables as: i) client rating of therapist credibility, and j) client reported "liking" of therapist (Atkinson & Lowe, 1995). There is no reason, in principle, not to include the converse as dependent variables: k) therapist rating of client credibility, and l) therapist

reported "liking" of client. (A list of measures that are frequently used in process research is available in Hill, Nutt, & Jackson, 1994.)

Many opportunities exist for further exploratory studies in the area of therapy process research. For example, it has been noted that differences in world view may lead clients to attach meanings to symptoms that are different from the meanings attached to those symptoms by therapists and counselors (Altarriba & Santiago-Rivera, 1994). Aside from the matter of symptoms, the constructivist approach in psychotherapy emphasizes the importance of meaning, culture, and agency in the therapeutic encounter (Neimayer & Mahoney, 1995). In light of these considerations, the WAI would be useful in investigating questions such as the following: How do people with different world views describe symptoms, disorders, issues, problems in living, and challenging existential situations? How are different world views associated with perceived and expressed meanings, and with the expression of culture and agency, in the therapeutic situation?

In terms of hypothesis testing, the following hypotheses are plausible and useful for investigation:

- *Hypothesis 1.* Differences in terms of the Relation to Authority dimension will be associated with differences in terms of response modes, dominance behaviors, and affiliation behaviors in therapy sessions, in the following manner: a) therapists who tend towards the Linear pole of the Relation to Authority dimension will tend to use more directive responses, b) therapists who tend towards

the Lateral pole of the Relation to Authority dimension will tend to use more non-directive responses,

c) therapist—client dyads where therapist and client take opposite positions on the Relation to Authority dimension will exhibit more dominance behaviors than other dyads, and d) therapist—client dyads where therapist and client take similar positions on the Relation to Authority dimension will exhibit more affiliation behaviors than other dyads.

- *Hypothesis 2.* Therapist—client dyads where therapist and client take similar positions on WAI Factor 1 (Vision of Life) will reach agreement on therapeutic goals more quickly and with more mutual perceived satisfaction than other dyads.

- *Hypothesis 3.* Therapist—client dyads where therapist and client take similar positions on WAI Factor 3 (Pathway through Life) will reach agreement on therapeutic goals more quickly and with more mutual perceived satisfaction than other dyads.

- *Hypothesis 4.* Therapist—client dyads where therapist and client take similar positions on WAI Factor 2 (Power in Life) will experience more mutual perceived satisfaction with counseling sessions on a session-to-session basis than other dyads.

These hypotheses derive from logical considerations of the dimensions of the world view model used in this study, and the factors

of the WAI that emerged in data analysis. The use of directive responses seems consistent with a linear orientation to authority (Hypothesis 1a), in the same way that the use of non-directive responses seems consistent with a lateral orientation (Hypothesis 1b). It seems likely that therapist—client incongruity in terms of relating to authority would result in a more pronounced power struggle in the counseling relationship (Hypothesis 1c), in the same way that therapist—client congruity in this regard would lead to a more cooperative relationship (Hypothesis 1d).

Again, purely on logical grounds, it seems plausible that the process of agreeing on therapeutic goals would be facilitated if client and therapist took compatible positions on the metaphysical background to the events of life, on the matter of whether or not the client has choice in selecting behavior, and on whether it is the client's agenda or that of the client's reference group that take priority, which dimensions compose Factor 1 (Vision of Life) on the WAI (Hypothesis 2). For similar reasons, it seemed plausible that the process of agreeing on therapeutic goals would be facilitated if client and therapist took compatible positions on whether the client can actually change in the first place, and on how two people should relate in an authority-laden situation, which are the two major dimensions composing Factor 3 (Pathway through Life) on the WAI (Hypothesis 3).

Finally, it seems plausible to expect that the session-to-session task of conducting therapy would be more mutually satisfying if client and therapist agreed on the matters of how the client has arrived at her or his situation in life (locus of responsibility), and how the client can

make progress henceforth (locus of control). Anecdotal evidence suggests that consideration of these issues comprises a great deal of the substance of many therapeutic discussions of problems in living and relationship issues (Engler & Goleman, 1992). These issues are addressed directly by the two dimensions composing Factor 2 (Power in Life) on the WAI (Hypothesis 4).

Outcome Research with World View as an Independent Variable

Outcome research is crucial to psychotherapy and counseling. One of the "breakthrough problems" in the field involves the improvement of the usefulness and efficacy of these interventions (Mahrer, 1997, p. 84).

Outcome research typically addresses some specific form of the general question, How do such-and-such independent variables affect what happens after therapy? Typical dependent variables used in outcome research include: a) change in client functioning, as rated by client, therapist, and/or significant others, and b) change in experienced symptoms (Lambert & Hill, 1994). An additional dependent variable often studied is c) frequency of premature termination of therapy (Atkinson & Lowe, 1995; Garfield, 1994, p. 195). The choices involved in devising a measurement strategy for dependent variables in outcome research are notoriously complex (Lambert & Hill, 1994). However, as it happens, some sophistication is also involved regarding choice of independent variable, because there are many potential ways to implement world view as an independent variable in outcome research.

It has long been noted that different methods of counseling and psychotherapy, for the most part, yield substantially similar therapeutic outcomes (Smith & Glass, 1977; Stiles, Shapiro, & Elliott, 1986; Wampold, Mondin, Moody, Stich, Benson, & Ahn, 1997; cp. Crits-Christoph, 1997; Howard, Krause, Saunders, & Kopta, 1997; Wampold, Mondin, Moody, & Ahn, 1997). Several approaches have been taken to illuminate this puzzling finding, approaches that result in a variety of ways to conceptualize world view as an independent variable in outcome research.

One approach taken to this matter involves the supposition that the apparent equivalence of therapeutic outcome across methods is due to the effect of common features or factors shared across psychotherapy methods. These common features may include, among others:

a) general therapist factors (e.g., therapist attitudes and expectations),

b) general client factors (e.g., client attitudes and expectations), and

c) aspects of the therapeutic alliance (Fischer, Jome, & Atkinson, 1998; Lambert & Bergin, 1994; Stiles, Shapiro, & Elliott, 1986). General therapist and client factors may include world view dimensions. Indeed, it has been hypothesized that a world view shared by client and counselor is one of four crucial common factors underlying efficacious counseling (Fischer, Jome, & Atkinson, 1998). World view theory and the WAI are applicable to the study of potential common factors as independent variables, and their effects on therapy, as outlined below.

Therapist World View as Independent Variable in Outcome
Research

Surprisingly little research has addressed "the problem of
identifying specific therapist values that are associated with various
treatment outcomes" (Beutler, Machado, & Neufeldt, 1994, pp. 240-241).
This may be a function of a research prejudice in which therapist
characteristics generally have been considered nuisance variables in
research (Lambert, 1989). However, as some therapy researchers have
pointed out (Bergin, 1997; Garfield, 1997; Lambert, 1989), the time has
certainly arrived to address the matter of therapist characteristics and
their effect upon therapeutic outcome. Therapist world views would
certainly seem to be a fruitful area for research in this vein. Of course,
this research departs radically from the clinical-trials or "technological"
model of psychotherapy research (Docherty, 1984), and represents a
revisiting, from a new direction, of issues raised by scholars in the
"common factors" approach, such as Jerome Frank (1973).

It is the belief of the present author that specific therapist world
view configurations may be less important to therapeutic outcome
than either: a) client-therapist similarity (Beutler & Bergan, 1991), or
b) the ability of the counselor to understand and empathize with the
client's world view, and to accurately convey that understanding and
empathy. However, at this stage of knowledge, it is certainly
premature to rule out main effects for therapist world view. The
following hypotheses seem plausible:

• *Hypothesis 5.* Positive therapy outcome will be associated
  with therapists who hold the following beliefs: a) people

have free will in choosing at least some of their behaviors,

and, b) human nature, and one's habits, are changeable.

- *Hypothesis 6.* Negative therapy outcome will be

  associated with therapists who hold the following beliefs:

  a) human behavior is completely determined, and,

  b) human nature, and one's habits, are fixed and

  permanent.

Hypothesis 5(a) follows from work in the philosophy of psychology which suggests that the assumption of the reality of human agency more accurately reflects the human situation, and is the more useful assumption for a therapist to make in the therapeutic enterprise (Bakan, 1996; Howard, 1994a; Rychlak, 1979). I hold this to be the case in spite of evidence suggesting that the ability to exercise such control may be very limited (Bargh & Chartrand, 1999), on the grounds that focusing on the control that can be exerted, however small, is of paramount importance in counseling and psychotherapy. Hypothesis 5(b) follows from the suggestion of Triandis (1985), that a belief in a changeable human nature bespeaks an optimism about the therapeutic enterprise in general, implying positive treatment process and outcome. Hypotheses 6(a) and 6(b) are each simply the converse of Hypotheses 5(a) and 5(b), respectively.

Client World View as Independent Variable in Outcome Research

Research on the effect of client variables on therapeutic outcome has focused on the effect of such variables as ego strength, and various aspects of presenting psychopathology (Garfield, 1994), rather than on

the effect of client values or world views. Although there is some evidence that specific client attitudes may constitute a common core to successful therapy experiences (Stiles, Shapiro, & Elliott, 1986), relatively little research into the effect of specific client attitudes has been conducted, other than the effect of client expectations regarding therapy (Garfield, 1994). Nonetheless, on a priori grounds, client attitudes may be expected to have a large impact on therapy outcome. Of course, client world views are an aspect of client attitudes, and the effect of client world views on therapy thus is a worthy topic of research. The following hypotheses in this area seem plausible:

- *Hypothesis 7*. Positive therapy outcome will be associated with clients who hold the following beliefs: a) people have free will in choosing at least some of their behaviors, and, b) human nature, and one's habits, are changeable.

- *Hypothesis 8*. Negative therapy outcome will be associated with clients who hold the following beliefs:
  a) human behavior is completely determined, and,
  b) human nature, and one's habits, are fixed and permanent.

Hypotheses 7 and 8 are, of course, expressions of the same ideas behind Hypotheses 5 and 6, respectively, but put in client terms. The same justifications for the plausibility of Hypotheses 7 and 8 apply as for their precedent hypotheses.

Client—Therapist World View Match as Independent Variable in Outcome Research

What effect do initial client—therapist world view similarities and differences have on therapeutic outcome? Certainly findings from the values research literature are mixed in this regard. Summarizing a number of research reviews, Beutler and Bergan found that "none ... arrived at a clear conclusion about whether initial value similarity or ... dissimilarity is more closely related to various counseling outcome criteria" (Beutler & Bergan, 1991, p. 18). These authors noted, however, that the values literature is characterized by the lack of a consistently applied typology of values, a lack which the aforementioned authors attempted to address through the use of an adaptation of the Kluckhohn model (Beutler & Bergan, 1991). Nonetheless, as mentioned much earlier, there is some reason to question the utility of the Kluckhohn model for therapy research. Thus, in the opinion of the present author, the question of the effect of client—therapist world view similarity on therapy outcome is yet to be adequately addressed.

Sue and Sundberg (1996, p. 332) have explicitly hypothesized that counseling effectiveness will increase with an increase in client—therapist world view similarity. Indeed, these authors speculate that "client—counselor congruence on values and attitudes may be more important than client-counselor match on ethnicity" (Sue & Sundberg, 1996, p. 333), a point that is echoed by Beutler and Bergan (1991), and one to which we shall return later, in considering suggestions for research in multicultural counseling and

psychotherapy. In light of these considerations, the following multi-part hypothesis seems plausible:

- *Hypothesis 9.* Across outcome measures, positive outcome will be associated with initial client—therapist world view similarity in terms of beliefs regarding: a) agency, b) mutability, c) relation to authority, d) relation to group, e) locus of responsibility, and f) metaphysics.

The justification for this hypothesis can be found in the literature review given in Chapter II. That is, these world view dimensions have been selected particularly for their relevance to counseling and psychotherapy; it is thus plausible that world view compatibility on these dimensions especially should be related to positive therapy outcome.

World View as Dependent Variable in Outcome Research

The basic question addressed when world view is considered as a dependent variable in outcome research is: How does therapy affect client world view? This question can be addressed in terms of both short-term effects (i.e., tracking world view changes over the course of therapy) and long-term effects (i.e., assessing sustained changes to world view, in terms of pre-, post-, and follow-up measures). In addition, there is much latitude to be taken in terms of the aspect of therapy that can be studied as the independent variable, including initial therapist world view, therapist orientation, and a host of process variables (such as those mentioned by Beutler, Machado, & Neufeldt, 1994).

There is some evidence for the proposition that client world view will come to resemble therapist world view over the course of at least a successful course of psychotherapy. For example, it has been found that therapist attitudes towards transcendence exert a powerful effect on patient attitudes on this matter (Sorenson, 1997). On a much broader scale, the values literature (as reviewed by Beutler & Bergan, 1991) suggests that, in successful psychotherapies, some client values come to resemble therapist values. However, these findings certainly do not apply to all values, and for the most part the world view attributes focused upon in the present study have not been studied. Again, exploratory studies are recommended; however, the following hypotheses are worthy of investigation:

- *Hypothesis 10.* For clients with an initial (i.e., pre-therapy) world view position of Determinism on the Agency dimension, positive therapy outcomes will be associated with change towards the Voluntarist position on the Agency dimension.

- *Hypothesis 11.* For clients with an initial (i.e., pre-therapy) world view position of Permanent on the Mutability dimension, positive therapy outcomes will be associated with change towards the Changeable position on the Mutability dimension.

The justifications for these hypotheses are rooted in the philosophical underpinnings to theories of counseling and psychotherapy. Despite the large and apparently ever-increasing number of forms of counseling and psychotherapy available (Corsini,

1984; Herink, 1980), two concepts seem foundational to most or all approaches in the therapeutic enterprise: choice and change.

As opposed to some other psychologically-oriented activities, such as thought reform or "brainwashing," therapy seems based upon the notion that human beings exert conscious influence over at least some of their behaviors. It has been argued that a belief in determinism is a philosophical underpinning to many approaches to therapy, even including humanistic approaches (Slife & Williams, 1995). However, this creates a logical problem. In most instances, coming to therapy seems to constitute a personal choice; in most forms of therapy, the client is confronted with numerous choice points, and is coming to therapy to discover how to better deal with life choices. Even in psychoanalysis, which purportedly is based in part on the notion that no mental events result from free will (Figueira, 1990, p. 73), it is noteworthy that the point of the therapeutic enterprise revolves around the notion of increasing conscious control: "Where id was, there ego shall be" (Freud, 1933b/1965, p. 71).

Thus, therapy would seem to be based on the implicit assumption that at least some human behaviors are consciously chosen. This would imply that those who engage as clients in successful therapies possess or take on the world view position of Free Will in the Agency dimension. This is the basis of Hypothesis 10.

Therapy is initiated because someone (typically, although not always, the client) wishes to see change occur in the client's life. Thus, therapy would seem to be based on the implicit assumption that human nature is changeable in other than some superficial way. This

would imply that those who engage as clients in successful therapies possess or take on the world view position of Changeable in the Mutability dimension. This is the basis of Hypothesis 11.

The "Matrix Paradigm" and Therapy Outcome Research

Many years ago, a sophisticated approach to psychotherapy outcome research was described:

> The question towards which all outcome research should ultimately be directed is the following: *What* treatment, by *whom*, is most effective for *this* individual with *that* specific problem, and under *which* set of circumstances. (Paul, 1967, p. 111; italics in original)

This approach has been called the "matrix paradigm," because it specifies a 5-dimensional matrix within which to lay out the parameters of therapy research (i.e., treatment x therapist x client x problem x circumstances; Stiles, Shapiro, & Elliott, 1986, p. 168).

The matrix paradigm, although sophisticated, presents tactical difficulties in terms of finding sufficient numbers of clients and therapists to fill the cells in the design (Stiles, Shapiro, & Elliott, 1986). In the remainder of this subsection, a method is outlined to adapt the matrix paradigm for practical research into the effect of world view on therapy outcome and process.

As shown schematically in Figure 2, Paul's matrix paradigm can be adapted to investigate the relationship of world view and therapy outcome.

The cube at the top of the figure has, as one dimension, variation in client world view. Each point along this dimension can be considered a discrete world view position on a single dimension, such

as "Client believes all human behavior is determined," "Client beliefs reflect internal locus of responsibility," or "Client beliefs reflect Strict approach to WAI Factor 3." Thus, each alternative for world views as assessed by the WAI is represented, both in terms of the bipolar attributes of the WAI scales, and in terms of the bipolar alternatives for the three WAI factors that emerged in the scale-score-level factor analysis.

In addition, the cube at the top of the figure has, as another dimension, variation in counselor or psychotherapist world view. In the same way as the previous dimension of the cube, each variation of world view as assessed by the WAI is represented.

Finally, the cube at the top of the figure has, as its third dimension, variation in presenting concern or diagnosis. Each point along this dimension can be considered as a discrete presenting concern or diagnosis, with the nosology left to the discretion of the researcher. One of the more sophisticated nosologies available would be the *DSM-IV* (1994), with the stipulation that all so-called "V codes" (which involve non-psychiatric counseling concerns, such as marital difficulties and spiritual concerns) would be included in the nosology. (Enhancements to the *DSM-IV*'s nosology may be necessary in order to give a more articulated view of, for example, difficulties within a couple, intrafamilial conflict, or spiritual concerns.)
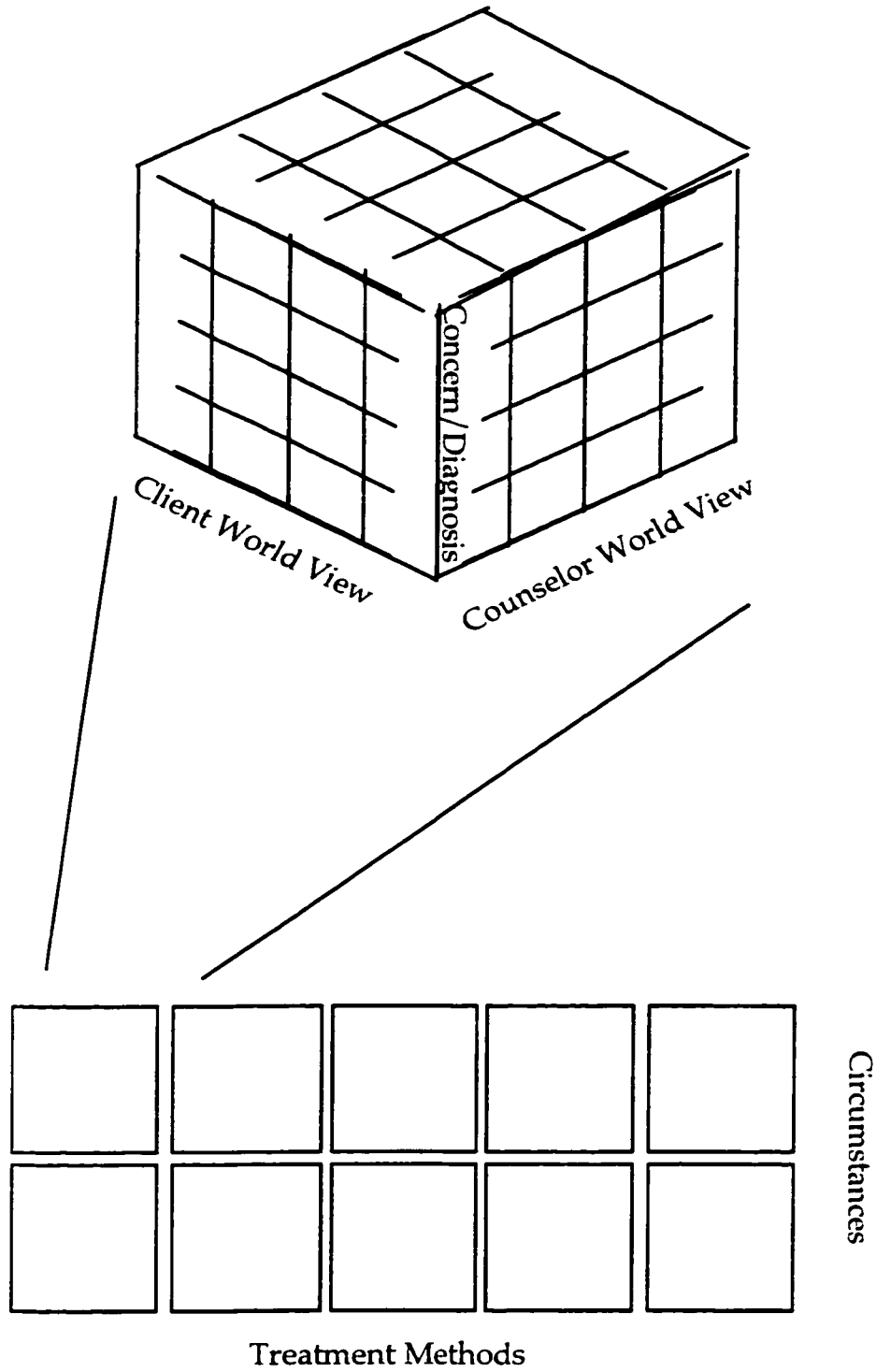
Figure 2. World view applied to the matrix paradigm for therapy research.

Each cell of the cube thus is located at a unique intersection of client world view aspect, counselor world view aspect, and presenting concern or diagnosis. For example, one such cell would represent the situation where the client's belief reflected a collectivist position, the counselor's belief reflected an internal locus of responsibility, and the presenting concern was conflict between the client and the client's family of origin. Another such cell would represent the situation where the client believed that human behavior reflects the reality of agency, the counselor believed the same, and the presenting concern was major depression of mild severity without psychotic features.

Although each cell thus occupies a different and unique location, the "content" of each cell is identical: measures of therapy outcome. Strictly speaking, the content of each cell is a set of data points representing the numerical values obtained by a number of clients on a uniform set of therapy outcome variables. For example, each cell might contain the scores of 50 clients on the Beck Depression Inventory, the Symptom Checklist-90, and ratings of global functioning as assessed by three of each of the clients' significant others (in all cases, pre- and post-therapy, with 6-month followup).

As noted at the bottom of the page, the matrix paradigm has additional levels of complexity. One can consider multiple cubes such as have just been described, each cube itself occupying a unique position within a two-dimensional grid. One dimension of the grid involves treatment method (e.g., psychoanalytic psychotherapy, cognitive therapy, several flavors of eclectic psychotherapy, and so forth). The other dimension of the grid involves surrounding

circumstances. "Circumstances" may include, for example, settings such as one-on-one private practice setting, college counseling center, inpatient hospitalization, or outpatient mental health clinic. Alternatively, a researcher may wish to construe "circumstances" to refer to socio-economic status of the client, or other contextual characteristics. (Of course, there is nothing to prevent the model from being extended to additional levels of complexity by adding more contextual dimensions.)

Two things should be clear from an inspection of Figure 2 and its description. One, this is a reasonably adequate implementation of Paul's sophisticated matrix paradigm for psychotherapy research. It reflects the five basic dimensions mentioned by Paul, specifically construing the client and counselor characteristics in world view terms. As such, this would be an excellent way to investigate the effect of client and counselor world views on therapy outcome.

Two, this design involves many, many cells, a problem often encountered in attempting to use the matrix paradigm (Stiles, Shapiro, & Elliott, 1986). Even a small portion of this design would involve many cells, and hence many clients. A comprehensive study conducted in the matrix paradigm would involve thousands of clients in counseling and psychotherapy, comprising one of the most massive therapy studies ever conducted. It is virtually inconceivable that the appropriate governmental or private agencies would fund such a study as a set of clinical trials. On that basis, many potential readers of this proposal might conclude that such a study would be too impractical to conduct. However, this would not be an accurate judgment.

The key to understanding how such a study might be conducted is to understand that the clinical-trial paradigm need not be superimposed on the matrix paradigm. There are many problems with the clinical-trial paradigm for psychotherapy research, as noted by Goldfried and Wolfe (1996). Clinical trials are far removed from the realities of psychotherapeutic work. Random assignment of clients or patients to different clinical trial conditions is at best simply impractical, because clinicians do not randomly assign clients to therapy conditions, to say nothing of the ethical issues involved. Clinical trial data do not typically permit inclusion of patients with multiple disorders, which is rather typical in the clinical situation. Further criticisms are available (Docherty, 1984; Goldfried & Wolfe, 1996).

As an alternative to the clinical-trial paradigm, Goldfried and Wolfe (1996) have proposed a revival of single-case research. Of course, one disadvantage of such an approach is that it does not yield a strong power to generalize, a power that is afforded by a large number of participants. However, what one single-case study cannot accomplish, a mass of thousands of single-case studies can achieve.

Every day, just in New York City, psychotherapy and counseling is conducted by psychologists, psychology predoctoral interns, and psychology postdoctoral fellows, at a minimum of twelve outpatient clinics, four state hospitals, three Veterans Administration hospitals, and three college counseling centers. (Consideration is restricted here to locations with APA-accredited predoctoral internship programs, plus a few sites with postdoctoral fellowships). It would be a fairly

conservative estimate to reckon that psychologists and interns alone at these 22 sites see an aggregate of at least 500 different clients for sessions of individual psychotherapy each week (not counting emergency or multiple sessions, intakes, testing, or group therapy), and possibly many more. It is a reasonably conservative estimate that this client load "turns over" at least three times over the course of a year, on the average, meaning that at least 1500 different individuals are seen annually in such settings for courses of individual therapy. Add to that the individuals seen in individual psychotherapy in private practice settings or in other outpatient settings, and it is clear that several thousands of clients are seen in individual psychotherapy of various sorts each year in New York City alone.

The point of this thought experiment is to point out that the matrix paradigm does not require a massive NIMH clinical trial with an impossibly high budget. In a manner of speaking, Nature is already conducting this study, using a quasi-experimental design (Campbell & Stanley, 1963/1966); all that remains for us is to collect the data.

At its simplest, a full implementation of the matrix paradigm would involve administering to a client the WAI and some measures of psychological or social functioning (see Kendall, Flannery-Schroder, & Ford, 1999, p. 348, for options), all administered both at the beginning and at the conclusion of therapy. (Given the realities of client attrition, it would be wise to administer a "mid-term" assessment of functioning and world view after every three to six sessions of therapy.) The total time invested by the client would probably be less than two hours. The clinician involved would need to keep track of (a) the number of

sessions attended by each client before termination, and (b) the nature of termination (i.e., satisfactory or not). The clinician also would need to fill out the WAI once, all at the cost of a few minutes per clinician (not per session).

Thus, if a number of sites and individual clinicians could be recruited into the study, the matrix paradigm could be implemented to investigate the relationship of world view to psychotherapy and counseling, for a relatively low cost. The costs would involve reproduction or purchase of measures, postage, data encoding, and data analysis. Because data collection is distributed across a large number of volunteer clinicians, no full-time professional staff salaries are required for data collection. Because participants in the study are regular therapy clients rather than special recruits, participant financial compensation would not be required.

It is likely that this quasi-experimental study will find some cells of the cube filled to overflowing with clients (e.g., most cells dealing with major depression, substance abuse, or relationship concerns) and other cells of the cube practically empty (e.g., cells dealing with a diagnosis of Dissociative Identity Disorder treated by Cognitive-Behavioral Therapy). This does not present a problem if what we are concerned with is getting a sense of how world view and therapy outcome interact in the real world of the practicing clinician. The study outlined above has the advantages of the matrix paradigm, and avoids many of the disadvantages of clinical trial research, inasmuch as it reflects how therapy is actually done, with real patients, in an

investigation of how important personality variables affect how treatments actually work.

Finally, it should be noted that the study above involves nothing more complicated than paper-and-pencil measures for data collection. A somewhat more sophisticated means of data collection, using microcomputer technology at little additional cost of time, has been described by McCullough, Farrell, and Longabaugh (1986).

World View in Multicultural Counseling and Therapy Research

This portion of the chapter proposes a way to conceptualize world view as a variable in multicultural research, and then outlines hypotheses and suggestions for research relating world view to process and outcome in multicultural counseling and psychotherapy. The reader is referred to the preceding portion of this chapter for a parallel consideration of these issues in regard to generic counseling and psychotherapy, and for a more detailed discussion of the meaning and assessment of process and outcome.

The Place of World View as a Variable for Research in Multicultural Psychotherapy and Counseling

In order to understand how best to conceptualize world view as a research variable, it is important to understand the nature of the typical independent variables in multicultural psychotherapy and counseling research: race and ethnicity. Although U.S. government classification by race and ethnicity historically has used artificial and restrictive categories based on supposed biological descent (Fernández, 1996), race and ethnicity are much more complex as constructs. Race

and ethnicity are, on multiple levels, socially constructed (King & DaCosta, 1996), and as such relate to other cultural sub-constructs and affiliated constructs such as language, history, and values.

Thus, when used as variables in research, races and ethnicities are actually stand-ins for cultures and, in turn, for world views (Okazaki & Sue, 1995, p. 368). So much is implicit, for example, in the oft-repeated recommendation that the mental health field should recruit "more ethnic therapists who presumably are bilingual or are *familiar with ethnic cultural values*" (S. Sue & Zane, 1987, p. 38, emphasis added). Several theorists have argued that "demographic descriptors are only indirect reflections of ... social values and attitudes, which imperfectly characterize people of different races, ages, and ethnic groups" (Beutler & Bergan, 1991, p. 16). From this perspective, much multicultural research (i.e., that which uses race and ethnicity as the primary independent variables) appears to function as a somewhat inefficient attempt to assess the effect of world view.

Values priorities (and thus, by implication, world views) have been asserted to be "perhaps the most central" of key elements in a culture (P. B. Smith & S. Schwartz, 1997, p. 79). Indeed, some theorists have attempted to recast the construct "culture" in terms that give belief systems a central place in the meaning of the construct, while strongly de-emphasizing the importance of race and ethnicity as defining characteristics of a culture (Baber, Garrett, & Holcomb-McCoy, 1997). As some researchers have put it:

> After all, what is culture, if not a set of values and attitudes, a world view, and so forth that are shared by a large number of people who also share, to a greater or lesser extent, other

demographic and physical characteristics? (Okazaki & Sue, 1995, p. 368)

It has been suggested that the most important level on which to understand a culture is that of the "deep structure" of world views (A. P. Jackson & Meadows, 1991). For Triandis, culture is essentially shared world view (cited in Sciarra, 1999, p. 19). Such formulations give central importance to world view as a means to understand culture, suggesting that the direct assessment of world view is important in any attempt to conduct quantitative research in the area of multicultural studies.

The American Psychological Association Office of Ethnic Minority Affairs noted in its provider guidelines:

> Psychological service providers need a sociocultural framework to consider diversity of values, interactional style, and cultural expectations in a systematic fashion. ... Likewise, there is a need to develop a conceptual framework that would enable psychologists to organize, access, and accurately assess the value and utility of existing and future research involving ethnic and culturally diverse populations. (American Psychological Association, 1993, p. 45)

The world view construct is a credible candidate to provide these needed frameworks, as it ties together systematically such constructs as values, cultural expectations, and behavior (see Appendix J).

An instrument like the WAI, which directly assesses world view apart from other aspects of culture or ethnicity, would facilitate two types of research. First and foremost, such an instrument facilitates research that addresses world view directly, rather than through the stand-in or proxy variables of ethnicity or race. Second, such an instrument facilitates assessment of the differential effects of various

aspects of ethnic culture (language, history, custom, etc., as well as world view). The research suggestions described below reflect these concerns, by way of modifying designs that have been used previously in multicultural psychotherapy and counseling. As long as researchers are careful to differentiate between individual-level and culture-level discussions of world view (P. B. Smith & S. Schwartz, 1997), much useful information can be gathered on important questions in multicultural counseling and psychotherapy.

Questions to Address in Multicultural Therapy Research

It should be emphasized that, in a multicultural context, the most fundamental research need is simply to assess world view beliefs within ethnic communities, so that counselors have a sense of typical intragroup and intergroup variation. It would be crucial to address ethnic community membership with careful attention to the great number and variety of ethnic communities present within such global categories as, for example, "Hispanic" or "Chinese." Each of these category labels masks a highly heterogeneous diversity of ethnic groups (Okazaki & Sue, 1995, p. 369; S. Sue, Kurasaki, & Srinivasan, 1999). Consequently, careful attention must be paid to using a high degree of specificity in ethnic designations. For similar reasons, attention must be paid to assessing degrees of acculturation (Kendall, Flannery-Schroeder, & Ford, 1999, p. 347).

A blossoming literature exists regarding ethnic variations for world view dimensions as seen through the Kluckhohn model (Carter, 1991; Kwan, Sodowsky, & Ihle, 1994; Sodowsky, Maguire, Johnson,

Ngumba, & Kohles, 1994), but there is little or no literature on cultural differences in the world view dimensions addressed in the present study—dimensions that, it has been argued here, are particularly of interest to counseling and psychotherapy. Beyond this important matter, however, questions in therapy research take other distinctive directions when applied to multicultural therapy and counseling.

Much research in multicultural counseling and psychotherapy has been designed to address one of three issues (Atkinson & Lowe, 1995; Leong, Wagner, & Tata, 1995): a) the effect of therapist—client ethnic similarity vs. difference on therapy process and outcome, b) client preferences for therapist ethnicity, and c) racial and ethnic variations in help-seeking attitudes. In addition, a small literature has developed concerning d) "therapist culture" and world view. Finally, e) the special circumstances of multiethnic and multiracial individuals are becoming a focus of interest (Root, 1996b). Each of these issues is addressed below with suggestions for exploratory and/or hypothesis-testing research.

Therapist—Client Ethnic and World View Match as Independent Variables in Studies of Therapy Process and Outcome

In their reconceptualization of multicultural counseling, Fischer, Jome, and Atkinson (1998) state that a world view shared by counselor and client is one of four common factors accounting for positive outcomes across different methods of counseling and psychotherapy. A small number of studies has been reported in the counseling psychology literature concerning the effect of

therapist—client ethnic similarity on treatment outcome and process. These studies, overall, found an association between therapist—client ethnic similarity and positive treatment outcomes (Atkinson & Lowe, 1995, pp. 396-397). In addition, these studies found a positive association between therapist—client ethnic similarity and what we might call "evaluative" process variables, such as client expectations of counselor helpfulness, and client liking of therapist; conflicting findings emerged regarding the effect of ethnic similarity on client judgment of therapist credibility (Atkinson & Lowe, 1995, pp. 393-396).

It would be of interest to see how much of an ethnic similarity effect is due to world view similarity and how much to non-world view aspects of ethnic similarity. This is especially of interest, given recent findings suggesting that ethnic minority therapists actually have world views that more closely resemble a White middle-class American world view than they resemble the modal world view of their own ethnic groups (Mahalik, Worthington, & Crump, 1999).

One relatively uncomplicated way to address this issue would be to administer the WAI and collect demographic data from both therapists and clients, and collect simple data regarding outcome (drop out rate, length of treatment, and client-reported satisfaction with treatment) and process (client judgment of therapist credibility, client liking of therapist, client expectation for therapist helpfulness, therapist liking of client) for each therapist—client dyad. It would then be a statistically simple matter to determine to what extent positive outcome and positive evaluative process was associated with therapist—client similarity in terms of ethnicity, and in terms of each

of the six dimensions of world view assessed by the WAI. Plausible hypotheses include the following:

- *Hypothesis 12.* The most positive therapy outcome and process will be associated with therapist—client dyads that are similar in terms of both ethnicity and world view (i.e., the six dimensions and three factors assessed by the WAI).

- *Hypothesis 13.* The least positive therapy outcome and process will be associated with therapist—client dyads that are dissimilar in terms of both ethnicity and world view.

- *Hypothesis 14.* The effect of world view matching on therapy outcome and process will be larger than the effect of ethnicity matching. (The most direct test of this would be a comparison of two groups, one composed of therapist—client dyads that are similar on the six dimensions of world view assessed by the WAI but dissimilar in ethnicity, the other composed of dyads that are ethnically similar but dissimilar in terms of world view.)

It should be noted, however, that not every voice raised on this issue agrees that client—counselor world view similarity is to be preferred. In particular, Sciarra (1999) has held for the position that an interaction of different worldviews can be therapeutic through "fomenting more divergent thinking" (p. 21). This view is consistent with the point of view that if a therapist and a client share too much of a world view in common, "the holes in their heads are in the same places" (J. Lopez, personal communication, Spring 1989)—not a

situation that would bode well for the usefulness of the therapeutic encounter.

Clearly there is some merit to both sides of this dispute. On the one hand, research evidence suggests that therapy consistent with client cultural values shows greater improvement than other forms of therapy (e.g., Costantino, Malgady, & Rogler, 1986). On the other hand, identical client—therapist world views would seem to detract from the "dialogical and intersubjective nature of the counseling process" (Sciarra, 1999, p. 187). It may be that research in this area needs to paraphrase the approach taken towards psychotherapy research by Paul (1967), quoted earlier in this chapter. Thus, the appropriate question would be, *what* interventions are effective with *what* client—therapist world view combinations on *which* world view dimensions, in the context of *what* presenting concerns and *which* circumstances?

Client Preference for Therapist Ethnicity and World View

A number of studies of therapy process have addressed the issue of clients' preferences regarding therapist ethnicity. Most of this research tends to support the contention that clients prefer therapists of similar ethnicity to the clients, but there are many qualifications to be made to this simple statement, based on such factors as client level of acculturation, stage of client ethnic identity, and nature of presenting concern (Atkinson & Lowe, 1995, pp. 390-393).

It would be of interest to assess the relative importance of world view similarity and non-world view aspects of ethnic similarity, as they affect preference for therapist ethnicity. It has been hypothesized

by researchers in this area that "quite possibly, it is the clash of worldviews between racially and ethnically dissimilar counseling dyads that underlies much of the preference for ethnic similarity in counseling" (Leong, Wagner, & Tata, 1995, p. 421). It is of particular interest in this regard to note that several studies have found that most ethnic minority client participants ranked preferences for similarities such as "similar attitudes and values" more highly than similar ethnic group membership (Lowe & Atkinson, 1995, p. 392).

One type of research in this area uses the simple choice method, in which a participant is asked to make a choice between descriptions of two therapists of different ethnicities, one of which is identical to the participant's (Lowe & Atkinson, 1995). As an adaptation of this method, the present author proposes that participants be asked to rank order preferences for four therapists: a) same ethnicity as client—similar world view to client's, b) same ethnicity as client—different world view from client's, c) different ethnicity from client—similar world view to client's, and d) different ethnicity from client—different world view from client's. It should be noted that "world view" in this design could refer to any of the six dimensions and three factors of world view assessed in the WAI, singly or in any combination, thus providing for a rich design. Plausible hypotheses include:

- *Hypothesis 15.* The highest client preference ranking will be associated with therapists who are highly similar to the client in terms of both ethnicity and world view.

- *Hypothesis 16.* The lowest client preference ranking will be associated with therapists who are highly dissimilar to the client in terms of both ethnicity and world view.

- *Hypothesis 17.* The effect of world view matching on clients' preference for therapists will be larger than the effect of ethnicity matching. (Assessment of this hypothesis would require not only simple choice, but a rating scale of some sort, e.g., "On a scale from 1 to 10 inclusive, rate your preference for a therapist with the following characteristics.")

Another type of research in this area uses the paired-comparison method, in which participants make a number of forced choices between descriptions of counselors who differ in terms of a variety of characteristics (e.g., ethnicity, gender, age, personality characteristics, education; Lowe & Atkinson, 1995). As an adaptation of this method, one of the characteristics to be varied in the descriptions would be world view. It should be noted that "world view" in this design could refer to any or all of the six dimensions and three factors of world view assessed in the WAI, thus providing for a rich design. A plausible hypothesis would be:

- *Hypothesis 18.* Therapist world view will be more important than any other single factor (e.g., therapist ethnicity, gender, age, etc.) in determining client preference for therapist.

<u>World View and Help-Seeking Attitudes and Behaviors</u>

Ethnic group differences exist in terms of help-seeking attitudes
and behaviors, including utilization of mental health services (both in
terms of entering the system and continuing within it), expectations of
mental health care, favorable vs. unfavorable attitudes towards seeking
help for psychological issues, appropriateness of services as perceived
by the client, conceptualizations of problems (e.g., source of mental
health difficulties), acceptable means of problem resolution, acceptable
goals for treatment, and cultural mistrust of counselors (Leong,
Wagner, & Tata, 1995; Nickerson, Helms, & Terrell, 1994). This is a
field that is particularly ripe for exploratory studies. As an overarching
hypothesis, however, the following is plausible:

- *Hypothesis 19.* World view will be a more powerful
  predictor of client help-seeking attitudes and behaviors
  than ethnicity.

<u>"Therapist Culture" and World View</u>

Research has been done, particularly in the Kluckhohn tradition,
concerning the matter of world view beliefs that pertain to the
"culture" of therapists. As mentioned earlier, in a White sample of
clients and counselors, counselors seemed to take world view positions
that were different from their clients (Mau & Pope-Davis, 1993). A
recent study has found that counselor distinctiveness in terms of world
view exist across therapist ethnic groups, such that "therapists of
different racial/ethnic groups ... were similar to each other on
worldview reflecting membership in a 'therapist culture' " (Mahalik,

Worthington, & Crump, 1999, p. 2). These findings suggest these plausible hypotheses:

- *Hypothesis 20.* The "therapist culture" effect will be found for the WAI-assessed dimensions of world views, such that counselors of different ethnic groups will be more similar to other counselors than to other individuals of the counselors' ethnic group.

This is simply an extension of the work of Mahalik, Worthington, and Crump (1999) to the world view dimensions assessed by the WAI.

- *Hypothesis 21.* The "therapist culture" effect is to some extent explainable by a "therapist trainee self-selection" effect, such that individuals who self-select for therapy training (particularly those who ultimately complete training) already resemble the "therapist culture" in terms of world view more than they do their ethnic culture of origin.

This reflects a speculation put forth by Mau and Pope-Davis (1993, p. 48).

World View and Multiethnic/Multiracial People

Individuals who are multiethnic or multiracial in terms of family background are rapidly growing in number, relative to the monoracial/monoethnic population (Root, 1996a). The status of being multiethnic and/or multiracial raises many issues relevant to adjustment and mental health in the life of the individual (many of

which are explored in Root, 1996b, and C. B. Williams, 1999). In terms of world view research, this is virtually *terra incognita*, as multiethnic/multiracial people have not been the focus of much psychological research.

Under these circumstances, hypotheses are less appropriate to outline than questions for exploration, which would include the following: What relationship exists between the world view of a multiethnic/multiracial individual and the modal world views of the relevant ethnic and racial groups involved? How do matters of racial and ethnic identity affect that relationship? Given that racial and ethnic identification may change and develop over time, what relationship exists between changes in racial and ethnic identification, and changes in an individual's world view?

What Difference Would This Research Make?

What practical difference would the proposed research agenda make? This author believes that the confirmation of these hypotheses would have important implications for theory, practice, and training in counseling and psychotherapy. Finding that counselor-client similarities or discrepancies make a difference in counseling or therapy process (Hypotheses 1-4 and 12-14), in client preference for therapist (Hypotheses 15-18), in help-seeking attitudes (Hypothesis 19), or, especially, in counseling or therapy outcome (Hypothesis 9) would have major implications for the matter of matching professionals with clients. These implications would be important in both generic and multicultural contexts.

Finding that certain world view positions are more conducive to positive outcome (Hypotheses 5-8, 10-11) and affect help-seeking attitudes (Hypothesis 19) would have major implications for professional training, and for counseling and therapy process. Findings about a "therapist culture" effect (Hypotheses 20-21) would have impact on professional training. Finally, finding that world view research has major implications for professional practice and training surely implies the importance of accounting for world view in our theories of counseling and psychotherapy.

In sum, the outcome of the proposed research agenda has major implications for theory, research, practice, and training in counseling and psychotherapy. World view should be a major focus of counseling and psychotherapy research in at least the early part of the 21st Century.

Chapter Summary

The chapter began with an evaluation of the success of the present research project in terms of its psychometric objective. The present research was judged to be an overall success, in terms of having fulfilled its objective of developing an instrument to assess aspects of world view relevant to counseling and psychotherapy that would fulfill accepted standards of reliability and show preliminary indications of validity. Individual scales and aspects of the research methodology were critiqued, and suggestions for improvement were made.

In the second part of the chapter, recommendations were made regarding future development efforts involving the WAI. Further validation procedures and improvements to scales were suggested.

In the third part of the chapter, consideration is given to the findings of the present study as they shed light on contemporary American world view beliefs and higher-order world view structures. The notable skews of the sample in favor of the Voluntarist and Spiritualist positions are discussed, particularly in terms of consequences for practitioners of counseling and psychotherapy. A discussion is made of the three higher-order factors of the WAI, as they touch upon the structure of personal world views.

The fourth part of the chapter discussed recommendations for the use of the WAI in counseling and psychotherapy research. Specifically, recommendations were made for: a) exploratory and hypothesis-testing research in generic therapy outcome and process research (including the implementation of the "matrix paradigm" for outcome research), and b) exploratory and hypothesis-testing research in multicultural counseling and psychotherapy, adapting current research models for world view issues, and adding exploratory research suggestions addressing multiethnic/multiracial concerns. Findings resulting from this research would have major implications for theory, research, practice, and training in counseling and psychotherapy.

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APPENDIX A

REVIEW OF PREVIOUS APPROACHES TO DESCRIBING AND
ASSESSING THE WORLD VIEW CONSTRUCT

To understand the world view concept, we must consider the
way this construct has been construed by several theorists. After a brief
description of religio-philosophical approaches to world view through
the late 19th Century, we shall consider several 20th Century theorists
and research investigators. For each of the major 20th Century
theorists, we shall consider contributions to a model of world view,
and critiques that can be made of the model. Available
instrumentation shall be mentioned briefly.

It is important to note that many of the theorists mentioned
here did not themselves use the term "world view." This is an artifact,
perhaps, of a lack of unity regarding theory and nomenclature. For our
purposes, one is a world view theorist if one has addressed issues
regarding the conceptual definition of world view mentioned in
Chapters I and II of the present study. An effort has been made to
include all theorists who have had a substantial impact on other
theorists or researchers.

Please note that the term "world view" is used herein both
generically (to refer to the world view *construct*) and specifically (i.e., to
refer to a *particular* world view, such as one that is predominant
among a given ethnic group). Context should make clear which

meaning of the term is used in a given instance; the former meaning of the term is usually intended.

Religio-Philosophical Approaches

World views are found, at least implicitly, in the earliest records of human thought. Indeed, it may be said that any philosophical or religious system is itself a way of viewing the universe and hence describes a world view. The accounts given in virtually all known ancient cultures of theogony (how the gods came to be) and cosmogony (how the earth was created and populated) provided a sense of how the world works and what beings exist in it (including the human and the suprahuman). Ancient Greek philosophy, concerned with the ultimate nature of physical matter, took this process a step further. In describing the world as being composed ultimately of fire, or water, or some combination of elements, these philosophers literally described a "world view."

To focus on the last century or so, Friedrich Nietzsche's (1872/1956) description of the Apollonian and Dionysian approaches to life marked two developments in the study of world views. First, Nietzsche recognized that world views encompass more than theogony and cosmogony, and include a sense of what human life and activity is supposed to be directed towards. In addition, Nietzsche's description of two competing systems was an explicit reference to the fact that there are alternative world views, mutually exclusive approaches to life and descriptions of reality. Previous to this point, philosophical discussion concerning world views had proceeded along the lines of exclusionary

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claims to truth. Nietzsche's insight was that different world views have an independent validity and appeal for those who hold them, and that there is worth in comparing world views in other ways than merely to claim that one or the other is exclusively true.

For the German philosopher Wilhelm Dilthey (b. 1833, d. 1911), *Weltanschauungen* (in the plural) were systems of contextualized knowledge regarding patterns of human values (Dilthey, 1957/1970; Giorgi, 1970). In Dilthey's thought, a world view was a product of human science, rather than a personal psychological possession, and was restricted to statements of meaning and value, probably to the exclusion of existential propositions such as beliefs about the existence of a supernatural or transcendent reality.

Freud and *Weltanschauungen* (1933)

Model

As in many areas, Sigmund Freud prefigured several important issues in the study of world views. In contrast to Dilthey, however, Freud scorned the notion that world views have worth or utility.

For Freud, "a *Weltanschauung* is an intellectual construction which solves all the problems of our existence uniformly on the basis of one overriding hypothesis, which, accordingly, leaves no question unanswered and in which everything that interests us finds its fixed place" (Freud, 1933b/1965, p. 139). Freud, then, saw world views as concepts that individuals hold consciously, philosophical constructions, "Handbooks to Life" (Freud 1926/1959, p. 22) designed to

tie the world up into neat and explainable packages. As such, he

derided world views:

> I am not at all partial to the fabrication of *Weltanschauungen*.
> Such activities may be left to philosophers, who avowedly find it
> impossible to make their journey through life without a
> Baedeker of that kind to give them information on every subject
> . . . . even the most up-to-date of them [i.e., *Weltanschauungen*]
> are nothing but attempts to find a substitute for the ancient,
> useful and all-sufficient Church Catechism. (Freud, 1926/1959, p.
> 22)

However, as much as Freud derided world views, he also

outlined several important dimensions of a world view, particularly in

the last of his *New Introductory Lectures*. Freud defined four basic

types of world views: Science, Religion, Philosophy, and Art (Freud,

1933b/1965). While this is an unnecessarily constrained view of the

varieties of world view, in delineating these specimens Freud defined a

critical matter. For Freud, epistemology, specifically the method of

establishing knowledge, is the critical dimension in distinguishing

among various types of world views. For example, concerning the

world view of Science, Freud felt that "[Science] asserts that there are

no sources of knowledge other than the intellectual working-over of

carefully scrutinized observations—in other words what we call

research—and alongside of it no knowledge derived from revelation,

intuition or divination" (Freud, 1933b/1965, pp. 139-140).

There are other aspects of world views that Freud mentioned,

some only in passing, in the last chapter of the *New Introductory

Lectures* (Freud, 1933b/1965). He noted a difference between the belief

that one is able to change something in the world through magic, and

the belief that the only way to change something is through direct

action. He pointed out differences between his notions of religious and scientific world views in terms of both cosmogony and descriptions of the source of well-being (i.e., protection and happiness). Implicit in his notion of the distinction between what he termed "religious" and "scientific" world views is a distinction in metaphysics, that is, between a view of reality where the spiritual is real, and a view of reality that embraces a thoroughgoing materialism.

Figueira (1990) has pointed out that there are several components of a psychoanalytic world view that can be identified, one of which is that there is no distinction between 'caused' and 'random' mental events, because "according to Freud there are no psychical events which result from pure chance or from 'free will' " (Figueira, 1990, p. 73). These considerations suggest that voluntarism (free will) versus determinism defines an important dimension of world view.

In sum, then, Freud pointed out either briefly or at length, and either explicitly or implicitly, at least seven aspects of world view: beliefs regarding sources of knowledge (i.e., epistemology), the origin of the universe (i.e., cosmogony), sources of well-being, the efficacy of magical vs. direct action, the existence of unconscious determinants of thought and behavior, the issue of voluntarism (free will) versus determinism, and the matter of spiritual versus materialist metaphysics.

Relation to Other Conceptions of World View

Freud's clearest explicit contribution to the study of world views was to emphasize the importance of epistemology. It is interesting to

note that the epistemological aspect of world views is found in several approaches to the concept, without mention of Freud's thought on this matter, a fact that independently confirms the validity of Freud's insight concerning the importance of this dimension. As will be discussed below, Royce (1964) considered epistemology to be the crucial defining aspect of different world views. Bergin (1980a), Ellis (1980), and Walls (1980) each gave an important place to epistemology in their consideration of the humanistic versus theistic world views, an emphasis echoed by Kahoe (1987) in his discussion of psychotheology. Two of the six dimensions of world views outlined by Montgomery, Fine, and James-Myers (1990) in their discussion of Afrocentric world views are, in fact, devoted to epistemology: a dimension they name "ontology," which actually deals with how knowledge may be gained through sensory versus non-sensory means, and a dimension called "acquisition of knowledge," which is concerned with the use of external sources versus intuition for knowledge acquisition.

Implicit but crucial in Freud's distinction (1933b/1965) between religious and scientific world views is metaphysics, particularly the difference between spiritualist and materialist approaches to metaphysics. That is, the distinction between what Freud called the religious and scientific world views hinges, to some extent, on whether one believes that reality has a spiritual aspect, or that reality is best described by a thoroughgoing materialism. The importance of the metaphysics dimension in distinguishing between world views is underscored by the philosophical work of Stace (1960) regarding mysticism and mystical experiences. Stace's model appears to be

mirrored in Maslow's (1968, 1970b) work regarding peak experiences, and forms the basis of some of Hood's (e.g., 1975) research in the psychology of religion. Differences in metaphysics result in different approaches to life, and imply different paths in counseling and therapy (Bergin, 1980a, 1980b; Ellis, 1980; Richards & Bergin, 1997; Walls, 1980).

Also implicit in Freud's metapsychology is the notion of determinism versus agency. For Freud, all behavior and mental events are determined by biological (including intrapsychic) and social forces; "according to Freud there are no psychical events which result from pure chance or from 'free will' " (Figueira, 1990, p. 73). A different position in relation to this matter is voluntarism, that is, the notion that humans exert free will or moral agency in choosing at least some of their behaviors.

World view positions regarding agency are implicit in many, if not all, psychological theories (Slife & Williams, 1995)—again unsurprising, given the importance of this issue within philosophy (Ewing, 1962). Questions regarding agency have been debated in psychology for a long time, and from many perspectives (Bakan, 1996; Bargh & Chartrand, 1999; Howard, 1993, 1994a; Mahoney, 1993; Rychlak, 1979; Slife & Fisher, 2000; Tinsley, 1993; Valentine, 1992; Wegner & Wheatley, 1999). Even among generally voluntarist positions, different approaches are possible, for example, concerning whether agency is considered absolute or not, or whether it is placed in a private ego or in a social context (Richardson, 1994; R. N. Williams, 1994). Indeed, it has been claimed that, even in principle, it is impossible to prove any given idea about free will as true or false on logical grounds, because

different and irreconcilable but unprovable assumptions about the nature of philosophy are at the foundation of different ideas about free will (Double, 1996). Coan (1974, 1979) found that stances regarding agency defined basic world view differences among both psychologists and non-psychologists. This is a matter of no small importance in psychology; differences in notions of agency imply different paths, both in life and in therapy (Richards & Bergin, 1997). Agency is also a matter of no small importance in everyday life, as witnessed by the number of recent films for the general public that have focused on questions of free will versus determinism (e.g., Niccol & Weir, 1998; Proyas, Dobbs, & Goyer, 1998; Wenders, Handke, & Stevens, 1998). Thus, it appears that Freud's thoughts on determinism versus voluntarism express an important issue within life and psychology.

In sum, then, several of the dimensions that Freud identified as aspects of world views happen to be important in others' conceptions of the world view construct. These dimensions particularly include epistemology, metaphysics, and agency.

Critique

There are several major problems with Freud's approach to world views. First, and perhaps most importantly, he seemed to consider world views optional. Freud explained the appeal of world views on psychodynamic grounds, ignoring the notion that without some sort of interpretive system, one cannot make sense of reality. Indeed, he derided at some length thinkers who suggested that different concepts of reality have relative, not absolute value; Freud

referred to such thinkers as "intellectual nihilists" (Freud, 1933b/1965, p. 154), while nowadays we might consider them to be proponents of a hermeneutic approach to reality. Contemporary, and particularly postmodern, approaches to the matter suggest that world views are mandatory aspects of the human psychological equipment (Neimeyer & Mahoney, 1995; Sarason, 1984; Shweder, 1995).

Another criticism of Freud's approach regards his assumption that world views are consciously chosen. This is an odd position to take for someone like Freud, who based his considerable intellectual edifice on the concept of the *unconscious* determinants of behavior.

Freud considered a world view to be something that neatly describes the world, a Baedeker to reality, an ontological catechism. It is more useful, however, to think of a world view not as a tourist guide or catechism which one reads as a description of reality, but as a lens through which one reads reality. "A world view acts as a 'filter' through which phenomena are perceived and comprehended" (M. E. Miller & West, 1993, p. 3). At least to contemporary thinkers, world views are altogether more subtle things than Freud considered them to be.

Another important criticism to be leveled at Freud's notion of world view regards his derision towards the construct, an attitude that implied that he and psychoanalysis have no distinct world view, an attitude echoed more recently by Schafer (1976). However, as Figueira (1990) has noted, Freud's denial of a psychoanalytic world view carries with it the tinge of a neurotic negation.

It appears that Freud and his translators had some difficulty in dealing with the very term *Weltanschauung*. One of Freud's early translators, W. J. H. Sprott, translated the term as "a philosophy of life" in the title of the last of the *New Introductory Lectures* (Freud, 1933a), while in the text he left the term untranslated. The Stracheys never translated the term in the text proper (Freud, 1926/1959, 1933b/1965), although in a footnote James Strachey observed that "this word might be translated 'A View of the Universe' " (Freud, 1933b/1965, p. 139, n. 1). Freud claimed that "*Weltanschauung* is . . . a specifically German concept, the translation of which into foreign languages might well raise difficulties" (Freud, 1933b/1965, p. 139). One is tempted to think that perhaps it was not the term that posed the problem for Freud, but rather the concept itself—with its implication that Freud himself might hold to unproven and unprovable heuristic assumptions that frame reality in ways that are somewhat arbitrary. In a sense, Freud was an apostle of modernism. In this spirit, it would have been difficult for him to give serious consideration to the world view construct, as the construct is inherently postmodern in its implicit position that reality is subjectively constructed rather than objectively universal (Kvale, 1995).

Jung and *Weltanschauungen* (1942)

Model

Some of the difficulties with Freud's notion of world view seem to be addressed in the work of Jung. For Jung, a world view is something firmly entrenched in an individual's psychology, largely

unconscious, and culturally transmitted, an element of personality that guides the person's perceptions and choices.

> Another possibility [for research in psychotherapy] . . . is the investigation of the world view factors which have proved to be of such cardinal importance when it comes to choosing and deciding. . . . The very greatest significance attaches to the investigation of these so-called world view factors, not only in regard to the aetiology [of neurosis] but—what is far more important—in regard to the therapy and necessary *reconstruction of the personality.* . . . A substantial part of these factors was termed by [Freud] the "super-ego," which is the sum of all the collective beliefs and values consciously handed down by tradition. These . . . constitute a solidly entrenched psychic system which is superordinate to the ego and the cause of numerous conflicts [in the neurotic]. (revised translation by this author of Jung, 1951/1954b, par. 245, pp. 119-120, italics in original)

But it is not only in the neurotic that the world view comes into play. For Jung, the possession of a world view was unavoidable as a condition of human life; indeed, the therapist as well as the patient had to come to grips with the issues raised by conflicting world views.

> [One's world view is] the most complex of psychic structures. . . . It guides the life of the therapist and shapes the spirit of his or her therapy. Since it is an essentially subjective system despite the most rigorous objectivity, it may and very likely will be shattered time after time on colliding with the truth of the patient, but it rises again, rejuvenated by the experience. (revised translation by the present author of Jung, 1942/1954a, par. 180, p. 79)

For Jung, one's world view includes positions on reality that are typically addressed by the doctrines of the various religions of the world, for example, regarding fate, the prospect of personal immortality, and so forth. But these are not dry intellectual positions, nor do they make one's world view a merely intellectual construction.

Although we like to use the word "doctrine" for these—psychologically speaking—extremely important ideas [i.e., religious doctrines], it would be a great mistake to think that they are just arbitrary intellectual theories. Psychologically regarded, they are *emotional* experiences whose nature cannot be [merely] discussed. . . . Logical arguments simply bounce off the facts felt and experienced. Original sin, the meaning of suffering, and immortality are emotional facts of this kind. (Jung, 1942/1954a, par. 186, pp. 81-82, emphasis added)

Critique and Summary

To sum up Jung's thought, world views exist at or near the level of an individual's depth psychology, and greatly affect volition, affect, and behavior, as well as cognition. They are heavily laden with affect, and are part of the warp and woof of personality, rather than being academic or intellectual constructions.

It must be noted, however, that Jung merely hinted at the details of the structure of a world view. For a concept that he deemed so important, it is unfortunate that Jung was not more explicit in describing what world views consist of.

Pepper and World Hypotheses (1942)

Model

The philosopher Stephen C. Pepper (1942/1970) described a small set of "root metaphors," based on everyday experience, that are used to explain reality. These root metaphors, Pepper wrote, enabled ancient humanity to understand the world, and became refined into "world hypotheses" (i.e., world views), which in turn provided the fundamental assumptions of various schools of philosophy. Pepper mentioned six of these world hypotheses, which he termed animism,

mysticism, formism, mechanism, organicism, and contextualism. After declaring the first two of these to be inadequate ways to approach the world, Pepper described in detail the remaining four world hypotheses:

Formism uses the root metaphor of similarity. Formism seeks to understand reality by assigning phenomena to classes (i.e., to categories of similar forms). Thus, for example, a formist would explain an act of violence on the basis of some classification (e.g., the person committed an act of violence because she is a person with a poor control of her temper).

Mechanism uses the metaphor of the machine to understand the world. This world hypothesis assumes that understanding the chain of cause and effect, and understanding how component parts interact with each other, will lead to understanding the whole. Thus, a mechanist would explain an event on the basis of an understanding of component parts and their interaction in a strict cause-effect chain (e.g., the person committed an act of violence because she was raised in a culturally deprived environment).

Contextualism uses the living event, the in-the-moment incident, as the metaphor to describe reality. This approach assumes that, as events in everyday life can be understood idiographically and in context, so too the world should be understood as a constantly changing series of events that only make sense in context. For example, a person's act of violence might be explained by noting that, in this particular situation, a combination of factors occurred which

might never occur again—the person was the target of a humiliating comment, on the day after failing an important examination, etc.

Organicism uses the metaphor of the living organism. Organicism seeks to understand reality in terms of complex, integrated, organic processes which result in the unfolding of a larger whole which was only implicit in the previous state. For example, an act of violence might be interpreted as the result of an attempt to work out anger in such a way that 'unfinished business' could be resolved by the individual, with a resulting liberation from chronic hostility.

In essence, then, Pepper's system of world hypotheses is a system of explanation regarding causation. Each of the root metaphors describes a way in which we explain what caused events in the world.

Pepper's system has been applied to psychoanalytic metapsychology (McGuire, 1979), and psychological theory and research in general (Overton, 1984). Berry (1984) has called for this perspective to be applied to experimental psychology, and noted that it has been applied to industrial/organizational psychology, so-called 'Christian' psychology, general psychology, and behavioral medicine.

Pepper's model of world view has been operationalized in the World Hypotheses Scale (Bethel, 1975; Fontana, Dowds, & Bethel, 1976; Germer, Efran, & Overton, 1982; Harris, Fontana, & Dowds, 1977; Johnson, Germer, Efran & Overton, 1988; Lo, Osaka, & Laird, 1994), the Organicism-Mechanism Paradigm Inventory (Germer, Efran, & Overton, 1982; Johnson, Germer, Efran, & Overton, 1988; Lyddon and Adamson, 1992; Ortiz and Johnson, 1991; Vasco, 1993; Vasco, Garcia-Marques, & Dryden, in press), and the Social Paradigm Belief Inventory

(Kramer, Kahlbaugh, & Goldston, 1992a, 1992b, 1992c; Kramer &
Melchior, 1990). These studies have used the Pepper model, for
example, to study client—counselor similarity, gerontology, gender,
and treatment outcome with patients exhibiting alcoholism.

Critique and Summary

Despite the use which some investigators have made of this
model in a variety of subfields in psychology, the model itself is of
limited scope. That is, Pepper's is essentially a model of four ways in
which people answer the question, "How shall I interpret or explain
the causes behind an event?" While an important issue in itself, this
single concept hardly seems sufficient to carry the weight of an
individual's entire approach to reality.

In sum, although Pepper's contribution to the study of world
views is limited, he did point out an important dimension of world
views. That dimension may be considered one of explanation or
causation.

Kluckhohn and Value Orientations (1950)
Model

Florence Rockwood Kluckhohn (1950; Kluckhohn & Strodtbeck,
1961/1973) provided an intricate model of the world view construct
that has had much influence on contemporary thought and research in
this area. In Kluckhohn's scheme, an individual's (or a culture's)
world view is defined by the answers to questions in six basic areas or
"orientations" of human thought regarding world views:

Human Nature Orientation. What is the character of innate human nature? Kluckhohn postulated this range of responses: that human nature is good, or evil, or neutral, or a mixture of good and evil.

Mutability Orientation. Can human nature be changed, or not? In other words, is human nature mutable, or immutable? Kluckhohn considered this a variation upon the human nature orientation, a sort of sub-dimension that she did not name separately; "mutability orientation" is a designation by the present author.

Man-Nature Orientation [sic]. What is the relation of human beings to nature? That is, do people live in subjugation to nature, in harmony with it, or in mastery over it?

Time Orientation. What is the temporal focus of human life? That is, in making decisions about behavior, does the person prefer to focus on considerations regarding the past (as in upholding tradition), the present (as in living-in-the-moment), or the future (as in planning for one's future welfare)?

Activity Orientation. What is the modality of human activity? That is, does the person prefer "being" activities that spontaneously express personality, "being-in-becoming" activities that have as their goal the development of an integrated self, or "doing" activities that focus on measurable achievement or reward?

Relational Orientation. What is the modality of interpersonal relationship? That is, does the person prefer hierarchical forms of relationship, "collateral" forms that emphasize collegiality and consensus, or individualism?

Usage of Model: Theory, Research, and Assessment

Kluckhohn's model has been widely used, particularly in discussions involving multicultural counseling, psychotherapy, and social work (F. R. Kluckhohn, 1951; Ibrahim, 1985a, 1985b; D. W. Sue & D. Sue, 1999; Treviño, 1996), multicultural family therapy (Kluckhohn, 1958; Papajohn & Spiegel, 1975), multicultural assessment (Dana, 1993), and multicultural educational practice (Kluckhohn, 1967b). It has also been recommended in discussions of general or "generic" counseling and therapy (Chapman, 1981; Green, 1979; Ibrahim, 1988, 1991). An extensive review of multicultural empirical investigations following this model (primarily descriptive studies or clinical impressions) has been presented by Carter (1991); many such studies have been conducted since Carter's review (e.g., Berkow, Richmond, & Page, 1994; Cheng, O'Leary, & Page, 1995; Hickson, Christie, & Shmukler, 1991; Ihle, Sodowsky, & Kwan, 1994; Kwan, Sodowsky, & Ihle, 1994; Lo, Osaka, & Laird, 1994; Mahalik, Worthington, & Crump, 1999; Sodowsky, Maguire, Johnson, Ngumba, & Kohles, 1994).

In their original investigation, Kluckhohn and her colleagues (Kluckhohn & Strodtbeck, 1961/1973) used the Value-Orientation Schedule. Currently, the most widely used (although yet unpublished) instrument is the Scale to Assess World Views (SAWV), prepared by Ibrahim and Kahn (1984, described in Ibrahim & Kahn, 1987, and Ibrahim & Owen, 1994); this instrument has been used in a wide variety of investigations, in the fields of counseling, multicultural psychology, and nursing (Berkow, Richmond, & Page, 1994; Chu-Richardson, 1989; Cunningham-Warburton, 1988; Furn, 1987; Hickson,

Christie, & Shmukler, 1991; Kwan, Sodowsky, & Ihle, 1994; Mahalik, Worthington, & Crump, 1999; Mau & Pope-Davis, 1993; Sodowsky, Maguire, Johnson, Ngumba, & Kohles, 1994). Some instruments based on the Kluckhohn model are available only from their authors or archival services (e.g., Carter & Helms, 1987; Carter & Parks, 1992; Green, 1979; Szapocznik, Scopetta, Aranalde, & Kurtines, 1978; Szapocznik, Scopetta, & King, 1978). The Kluckhohn model's Relational Orientation has been addressed through assessment efforts focused on the individualism—collectivism construct (Hui, 1988; Matsumoto, Weissman, Preston, Brown, & Kupperbusch, 1997; Singelis, Triandis, Bhawuk, & Gelfand, 1995; Triandis, 1995a).

It should be noted that, to the best of this author's knowledge, all of the above are only partial implementations of the Kluckhohn model; in particular, the Mutability Orientation of Kluckhohn's model has never been operationalized even by the Kluckhohn team itself.

Relation to Other Conceptions of World View

Some of the "orientations" of the Kluckhohn model appear individually in other investigators' models of world views, although it seems that these other investigators arrived at the same concepts independently. This fact emphasizes the importance of these dimensions for a comprehensive model of world view.

The human nature orientation is reflected in research regarding the relationship between self-esteem and beliefs about whether human nature is inherently good or evil (Martin, Blair, Nevels, & Brant, 1987). As we shall see, Wrightsman (1992) found that an important element

of people's philosophies of human nature involves beliefs about the variability of human nature. This seems similar to Kluckhohn's sub-orientation regarding the mutability of human nature.

The so-called man-nature orientation is reflected in the dimensions used by Baldwin and Hopkins (1990) to distinguish between African-American and European-American world views. This orientation also seems to be, in part, the subject of Noe and Snow's (1990) assessment instrument for the "new environmental paradigm." The man-nature orientation emerged clearly in the extensive empirical research into multi-cultural world views conducted by Schwartz (1994). This orientation occupies an important place in Dake's (1991) analysis of cultural biases and the perception of risk. The man-nature orientation seems very similar to the construct of "anthropocentrism," which has been proposed as way to understand attitudes regarding the relationship of human beings to nature (Chandler & Dreger, 1993; Dreger & Chandler, 1993).

The activity orientation is reflected in a "Sense of Worth" dimension used to distinguish between "optimal Afrocentric" world views and "suboptimal" world views (Montgomery, Fine, & James-Myers, 1990). This orientation reflects philosophical distinctions which date back perhaps to the ancient Greek distinction between the Apollonian and the Dionysian approaches to life (Kluckhohn & Strodtbeck, 1961/1973, p. 15).

The relational orientation surfaces in theories about differences in male-female communication and relating styles, mentioned in the work of Gilligan (1982) and Tannen (1990). This orientation has been

noted as having important relationships to concepts of self, social identities, and perceptions of intergroup conflict among Arab and Jewish Israeli students (Oyserman, 1993). This orientation emerged clearly in the extensive empirical research into multi-cultural world views conducted by Schwartz (1994). The relational orientation also occupies an important place in Dake's (1991) analysis of cultural biases and the perception of risk.

Critique

Despite its widespread use, the Kluckhohn model of world view presents three major problems. First, it is seriously incomplete. Second, it unwittingly combines two dimensions of world view into a single "orientation," and it commits this error on two occasions. Third, the aspect of this model that is most relevant to counseling and psychotherapy has fallen out of use over the years, and no longer appears in most descriptions of the model itself. Each of these problems is described in more detail below.

Incompleteness

Kluckhohn (1950) described the process by which she constructed her model as a top-down procedure, in which she considered fundamental issues that every culture must address. However, she indicated that her model was only a "tentative formation" (Kluckhohn & Strodtbeck, 1961/1973, p. 19).

This caveat seems to have escaped subsequent proponents of the model. In my opinion, counseling theorists and researchers have

committed a serious logical error. Research has firmly established that different cultural groups do indeed differ along the dimensions outlined by Kluckhohn (Carter, 1991). However, it is an unjustified logical leap to infer that, because Kluckhohn's dimensions differentiate among cultures, therefore they differentiate among cultures or individuals *in ways that are crucial for counseling and psychotherapy.*

It is clear that the Kluckhohn model lacks many dimensions that might be of interest for counseling and psychotherapy. For example, it contains little or nothing of relevance in terms of dimensions about beliefs regarding human agency or the meaning of life.

Confusion of Dimensions

Another problematic aspect of the Kluckhohn model is that, in two instances, it mistakenly combines two theoretically separate dimensions into one confused "value orientation." This is the case with the Relational Orientation and the Activity Orientation.

The Relational Orientation: A Confusion of Relation to Group and Relation to Authority

In the Kluckhohn model, the Relational Orientation involves "the definition of man's relation to other men" (sic; Kluckhohn & Strodtbeck, 1961/1973, p. 17). The Relational Orientation allows for three options: Individualism, Collaterality, and Lineality:

> When the Individualistic principle is dominant, individual goals have primacy over the goals of specific ... groups.... A dominant Collateral orientation calls for a primacy of the goals and welfare of the laterally extended group.... If the Lineal principle is dominant, group goals again have primacy, but there is the additional factor that one of the most important of these

group goals is continuity through time. *Continuity* of the group through time and *ordered positional succession* within the group are both crucial issues when Lineality dominates the *relational* system. (Kluckhohn & Strodtbeck, 1961/1973, pp. 18-19, emphases in original)

A careful analysis of this description indicates that there are actually two separate matters that are at issue in the Relational Orientation. One involves goal priority. That is, when there is some conflict between the goals of an individual and the goals of that individual's group of reference, is it the group's goals that have priority (the collectivist position), or the individual's (the individualist position)?

The other matter at issue in the Relational Orientation involves relating to authority. In the Collateral style, the emphasis is on what Kluckhohn termed *"laterally* extended relationships" (Kluckhohn & Strodtbeck, 1961/1973, p. 18, emphasis added), that is, relationships where one is perceived as being on the same level as the others, and authority is shared. On the other hand, the Linear option emphasizes ordered position within a hierarchy of authority, of which the English aristocracy (with its careful rules for succession to the throne) is considered an example (Kluckhohn & Strodtbeck, 1961/1973, p. 19).

It is possible to see each of these dimensions as varying separately. That is, it is possible to conceive of different individuals and cultures centering themselves at each of the four possible combinations of relation to authority and relation to group, as illustrated by examples given by Triandis and Gelfand (1998): lateral authority and individualist relation to group (e.g., democratic socialism or social democracy, as found in Australia, Norway, or Sweden), linear

authority and individualist relation to group (e.g., market economies, such as in France and the United States), lateral authority and collectivist relation to group (e.g., the Israeli kibbutz), and linear authority and collectivist relation to group (e.g., fascism, Chinese communism). Thus, the combining of these two dimensions into one value orientation, as is done in Kluckhohn's model, is not justified.

The Activity Orientation: A Confusion of Direction and Satisfaction

A similar confusion of dimensions involves Kluckhohn's Activity Orientation, which addresses a person's beliefs regarding the preferred mode of human self-expression in activity. The three options available within this orientation are: Being (i.e., the preference is for activities that are spontaneous expressions of personality), Being-in-Becoming (i.e., the preference is for activities that have as their goal the development of an integrated self), and Doing (i.e., the preference is for activities that result in measurable achievements or rewards).

There are actually two separate matters that are at issue in the Activity Orientation. One is the matter of the *direction* of activity; that is, should activity be directed outwards (towards the social and physical environment), or inwards (towards the interior world of affect, cognition, and spirituality)? Another issue is the nature of the *satisfaction* sought for in the activity: should satisfaction be sought in movement (e.g., improvement of personality, increase in possessions) or in stasis (i.e., enjoying the fruits of one's current status)?

Here, too, it is possible to see each of these dimensions as varying separately. That is, it is possible to conceive of different

individuals centering themselves at each of the four possible combinations of activity direction and activity satisfaction: outward movement (e.g., the individual seeks an increase in measurable external achievement), inward movement (e.g., the individual seeks improvement in personal characteristics), outward stasis (e.g., the individual seeks satisfaction in enjoying the possessions she or he already owns), and inward stasis (e.g., the individual seeks satisfaction in enjoying the inner life as it currently exists). Here, too, the combining of two concerns into one value orientation, as is done in Kluckhohn's model, is not justified.

Disappearance of the Mutability Aspect

The mutability aspect of Kluckhohn's model has been noticeable by its absence from most contemporary descriptions of the model, and from all instruments in the literature that have been constructed to assess world view along the lines of the Kluckhohn model {citation}. Given the popularity of Kluckhohn's model, why has the mutability dimension received such short shrift? To some extent, the reason for this can be found in Kluckhohn's original formulation and treatment of mutability.

Kluckhohn described mutability as a variation within the model's human nature orientation, as a sort of sub-dimension that Kluckhohn did not name separately. This already presents a logical problem, because the matter of human mutability spans every aspect of personality and behavior, not just the inherent moral orientation of human nature.

However, even in the restricted sense that Kluckhohn assigned to it, human mutability had a tentative status in Kluckhohn's model. Although mutability was clearly implied in even the earliest presentations of Kluckhohn's model, it did not appear in the earliest diagram or lists that summarized the model in Kluckhohn's articles (e.g., F. R. Kluckhohn, 1950). After a few years, mutability appeared in charts summarizing Kluckhohn's model (e.g., Kluckhohn, 1953), including Kluckhohn's best-known and often-imitated depiction of her model in *Variations in Value Orientations* (Kluckhohn & Strodtbeck, 1961/1973, Table I:1, p. 12). However, mutability continued to be treated as a sort of demi-dimension, not rating a separate status as an "orientation" in its own right. As Kluckhohn's chart was recreated in subsequent works by other scholars, mutability was included by few and omitted by many {citation}. This is so, despite the obvious relevance of this dimension to counseling and psychotherapy:

> Whether human nature is conceived as ... changeable (leading to optimism about counseling and therapy) or immutable (leading to pessimism about counseling and therapy) is an obviously critical dimension. (Triandis, 1985, p. 24)

Consequently, contemporary descriptions and implementations of the Kluckhohn model of world view omit an aspect of the original model that is "critical" to counseling and psychotherapy. Even without this omission, Kluckhohn construed mutability in a sense that was unnecessarily narrow, as mentioned earlier.

Kelly and Personal Constructs (1955)

<u>Model</u>

Formulating his views beginning in the 1930's, George A. Kelly (1955) was the first academic psychologist to publish extensively about what we now call world views. Kelly described an approach to personality that stood in marked contrast to the then-prevailing deterministic and reactive models available in behaviorist and Freudian psychoanalytic formulations.

Eschewing reference to such traditional psychological notions as learning, motivation, emotion, cognition, ego, and so forth (Kelly, 1963, p. xi), Kelly focused on the person as a sort of lay scientist, who sought to predict and control the world through using "the creative capacity of the living thing to represent the environment, not merely to respond to it" (Kelly, 1955, p. 8, emphases omitted). In this endeavor, individuals use certain patterns, "personal constructs," to construe the world and represent the universe. Personal constructs clearly correspond to what the present study calls world views.

Kelly eschewed the identification of specific world view dimensions in use across individuals, claiming that "no one has yet proved himself wise enough to propound a universal system of constructs" (Kelly, 1955, p. 10). However, Kelly provided a set of high-level theoretical propositions regarding the way that personal constructs function. These propositions consist of a fundamental postulate and eleven corollaries (Kelly, 1955, pp. 46-104). Some of these are quoted below, with the present author's restatements of Kelly in world view terms enclosed in square brackets.

Fundamental Postulate: A person's processes are psychologically channelized by the ways in which he anticipates events. (Kelly, 1955, pp. 46, 103) [Psychological processes (cognition, judgment, etc.) are strongly influenced by a person's anticipations regarding future events.]

Individuality Corollary: Persons differ from each other in their constructions of events. (Kelly, 1955, pp. 55, 103) [Different people have different world views.]

Organization Corollary: Each person characteristically evolves, for his convenience in anticipating events, a construction system embracing ordinal relationships between constructs. (Kelly, 1955, pp. 56, 103) [Individuals develop individual world views. Within a given world view, a dimension such as "good vs. bad" may apply at different levels of abstraction.]

Dichotomy Corollary: A person's construction system is composed of a finite number of dichotomous constructs. (Kelly, 1955, pp. 59, 103) [A world view is composed of a limited number of bipolar dimensions, each dimension being devised by the individual.]

Kelly's psychology of personal constructs has been developed by subsequent theorists (e.g., Bannister & Fransella, 1986; Bonarius, Holland, & Rosenberg, 1981; Neimeyer, 1985), and informs the work of professionals in counseling and psychotherapy (e.g., Fransella & Dalton, 1990; Winter, 1992). In particular, personal construct psychology has had a strong influence on constructivist approaches in psychotherapy (Neimeyer & Mahoney, 1995).

Critique and Summary

Kelly's personal construct psychology represents a response from an early humanistic psychology and psychotherapy to behaviorism and Freudian psychoanalysis. As such, Kelly's central insights have proven to be highly useful in clinical settings. However, as a theoretical

statement regarding world view, Kelly's formulations leave something to be desired.

Although Kelly definitely did not take a categorical or typological approach to world view, he did not specify much in the way of world view dimensions, either. Preferring an idiographic approach to a nomothetic one, Kelly seems not to have recognized that the same world view dimensions might show up across individuals. For that matter, Kelly failed to recognize that world views often involve an individual describing the world in a monovalent way (e.g., "people are basically good"), and that dichotomies, trichotomies, and so forth only emerge when comparing world views. In addition, through avoiding specific reference to cognition, emotion, and so forth, Kelly's theoretical contribution is somewhat limited.

Kelly's postulates and corollaries serve as a sort of necessary prolegomena to a formal theory of world view. His major enduring contribution to the study of world views would seem to be his recognition that human beings actively engage their environments through the instrumentality of constructed world views, to meet self-defined telic ends.

Stace and the Mystical World View (1960)

Model

This section of the review is unusual in that it deals with a description of a particular world view, rather than with descriptions of several. However, a consideration of the mystical world view leads to

a discussion of several important dimensions that may play a part in the description of world views in general.

The philosopher of religion W. T. Stace (1960) defined several characteristics of the mystical experience. Interestingly enough, although Stace is not cited in the work of A. H. Maslow, Maslow's (1968) description of the empirically reported cognitive states characteristic of peak experiences bears striking resemblance in several particulars to some of the characteristics of mystical cognition that Stace described. Some of these characteristics may be used to define ontological statements about the nature of reality. (In the following, the names of the qualities are those used by Hood, 1975, in operationalizing Stace's model.)

The Unifying Quality. This is "expressed abstractly by the formula, 'All is One' " (Stace, 1960, p. 79). "The whole of the world is seen as unity, as a single rich live entity" (Maslow, 1968, p. 88, italics omitted). As a statement of world view, this is an ontological statement that the world is not many things, but One thing, where all apparently different things are in fact deeply interconnected and cognitive contradictions are transcended.

The Inner Subjective Quality. The world itself is seen as a living Being; things which we do not usually think of as possessing consciousness (e.g., trees) are now felt to do so. "The more concrete apprehension of the One as being an inner subjectivity in all things, described variously as life, or consciousness, or a living Presence. The discovery that nothing is 'really' dead" (Stace, 1960, p. 79).

The Ego Quality. The notion here is that the true essence of the human being is not contained within the personal ego. In terms of a mystical experience, this "refers to the experience of a loss of sense of self while consciousness is nevertheless maintained. The loss of self is commonly experienced as an absorption into something greater than the mere empirical ego" (Hood, 1975, p. 31). "Perception can be relatively ego-transcending, self-forgetful, egoless" (Maslow, 1968, p. 79, italics omitted). In terms of a world view, this becomes the notion that the person is not defined by the self-actualized ego, but is in an ultimate sense identified with a transcendent All.

Stace's model of the mystical world view has been operationalized by Hood (1975). Hood's M Scale has been used in many studies of mysticism and peak experiences (see references in Hood, Spilka, Hunsberger, & Gorsuch, 1996, and in Wulff, 1997).

Relation to Other Conceptions of World View

Psychologists concerned with the description of "Afrocentric" or "Black" psychology have been particularly sensitive to the importance of the unity aspect of the mystical world view, confirming the importance of this dimension for a more general model of world view. Nobles (1991) identified a "notion of unity," similar to the unity dimension mentioned above, as an essential element of African philosophy and world view. The unity dimension also seems to be reflected in the themes of Harmony and Interconnectedness mentioned by Phillips (1990) as important elements of an Afrocentric approach to psychotherapy known as NTU. This concern with unity is

also found in two of six dimensions used to contrast "optimal Afrocentric" versus "suboptimal" world views by Montgomery, Fine, and James-Myers (1990): the so-called "World View" dimension, in which the world is either seen in a holistic fashion or in a segmented/dualistic way, and the Logic/Reasoning dimension, in which objects can be seen either in a "diunital" manner (objects can be alike and different simultaneously) or in a dichotomous, either/or way.

The notion of a subjectivity inherent in the natural world itself was and is upheld in many indigenous cultures. Historically, the Maya and most pre-Columbian societies in the Americas saw the earth as an animate being (Wilford, 1994). This belief is held by many indigenous cultures today. In general, it is clear that mysticism is an important element of the world view of indigenous cultures around the world. This can be seen readily in the literature on shamanism (Davis, 1998; Halifax, 1979; Nicholson, 1987).

Accounts in the popular press strongly suggest that there is a connection between a mystical perspective on the world and the control of stress and chronic pain (Moyers, 1993). Given this, certainly it would seem from the point of view of health psychology alone that it is important to give some place in a scheme of world views for dimensions that distinguish the mystical world view. The study of mysticism is part of the foundation of transpersonal psychology and psychotherapy (Boorstein, 1980; Cortright, 1997; Scotton, Chinen, & Battista, 1996; Valle & Halling, 1989; Walsh & Vaughan, 1993; Wegela,

1994; Wilber, 1986/1999d, 1999b), and has formed the basis of discussions of organizational psychology (Adams, 1990; Holder, 1989).

Critique and Summary

Theorists of the mystical world view have never portrayed it as the sole world view available to individuals, with the same claims to exclusivity or comprehensiveness made by Pepper, for example. As such, the mystical world view is in the ironic position of possessing modest claims for its own importance, at the same time that it deals with very far-ranging concepts (e.g., the unity of all things, the existence of self-aware Nature, and an ego-transcending consciousness).

In sum, the approach of the mystics defines at least three dimensions of world view: beliefs regarding the underlying unity of reality, the existence of a conscious Nature, and the possibility of a truly ego-transcendent consciousness. Implicit in this approach to the world is the notion that it makes a difference as to whether one sees the world in materialist terms, or in terms that allow an ontologically real spiritual dimension to reality; this would reflect the metaphysics dimension mentioned above in relation to Freud's approach to world view.

Royce and Knowledge of Reality (1964)

Model

Joseph R. Royce (1964) defined four epistemological approaches to reality, each with a different criterion for what is truth. Depending on the truth criterion which is accepted, different images of reality, or

world views, will be held by different individuals. The four approaches to reality that Royce recognized are authoritarianism, rationalism, empiricism, and intuitionism.

Authoritarianism. This approach takes the position that something is true if it is endorsed by some person or doctrine which has been accepted previously as authoritative; Royce relates authoritarianism to the believing function. "By authoritarianism we simply mean that we know on the basis of authority. If so and so said so, it must be so" (Royce, 1964, p. 17).

Given the negative connotations that the term "authoritarian" has in American culture, it is of interest to note that Royce pointed out that the authoritarian approach to reality is unavoidable and universal. This is, in part, because *all* approaches to reality (i.e., all world views) involve the use of unproven and unprovable assumptions that are arbitrary or authoritarian in nature. There is also a practical reason why the authoritarian approach is unavoidable:

> If a man [sic] had to empirically test all matters of fact for himself, logically prove all items of rationality, etc., he should simply find himself overburdened. In short, practicality demands that he accept certain findings on the basis of authoritative reports from those who are supposed to know. (Royce, 1964, p. 17)

Rationalism. This approach uses the standard of logic. That is, nothing is true if it is illogical. Royce relates rationalism to the thinking function.

Empiricism. This approach takes the position that reality is known via sensory experience. "If one can't see it, smell it, touch it, or

hear it, it does not exist" (Royce, 1964, p. 13). Royce relates empiricism to the sensing function.

Intuitionism takes the position that reality is known "by immediate or obvious apprehension" (Royce, 1964, p. 14). Royce felt that intuition is a result of the unconscious but immediate perception of gestalts in the midst of complex stimulus configurations. Royce relates intuitionism to the feeling function.

Royce and Mos (1980) developed the Psycho-Epistemological Profile to assess this aspect of world view. Research with this instrument has been reported by Vasco (1993; Vasco, Garcia-Marques, & Dryden, in press).

Critique and Summary

The importance of the epistemological aspect within a comprehensive model of world views has been established, not only by Royce, but by Freud and others. For example, epistemology is one dimension in a sophisticated two-dimensional grid model of world view devised independently of Royce by M. E. Miller and West (1993).

One critique of Royce's model of epistemology is its limitation of the possible paths that a person may take to knowledge. In addition to the paths of empiricism, rationalism, intuition, and authority, one may add the possible paths of revelation, divination, and nihilism (i.e., truth is unreachable or nonexistent). Freud (1933b/1965) considered these paths to be deficient, but he and others (Bergin, 1980a; Ellis, 1980; Walls, 1980) recognized that these approaches are taken by many individuals as they confront the epistemological challenges of reality.

In sum, the importance of the epistemological aspect for a comprehensive model of world views has been established, not only by Royce, but by various investigators, mentioned above, and earlier in regard to Freud's conception of world view.

Wrightsman and Human Nature (1964)

Model

Lawrence S. Wrightsman (1964, 1974, 1992) has devoted much of his professional research career in psychology to the assessment of philosophies and assumptions regarding human nature. The six basic dimensions of his model are as follows (adapted from Wrightsman, 1992, p. 84):

Trustworthiness versus Untrustworthiness. "Trustworthiness" reflects the belief that people are trustworthy, moral, and responsible. "Untrustworthiness" reflects the belief that people are untrustworthy, immoral, and irresponsible.

Strength of will and rationality versus Lack of willpower and irrationality. The former belief states that people can control their outcomes and that they understand themselves. The latter reflects the belief that people lack self-determination and are irrational.

Altruism versus Selfishness. The "Altruism" pole states that people are altruistic, unselfish, and sincerely interested in other people. The "Selfishness" pole reflects the belief that people are selfish and self-centered.

Independence versus Conformity to group pressures. The former position reflects the belief that people are able to maintain their

beliefs in the face of group pressures to the contrary. The latter belief states that people give in to pressures of group and society.

Complexity versus Simplicity. The "Complexity" pole reflects the belief that people are complex and hard to understand. The "Simplicity" pole states that people are simple and easy to understand.

Variability versus Similarity. "Variability" reflects the belief that individuals are different from one another in personality and interests, and that a person can change over time. "Similarity" states that people are similar in interests and that they do not change over time.

Wrightsman's *Philosophies of Human Nature Scale* (Wrightsman, 1974, 1992) has been used in his own extensive research efforts, as well as by others. For example, Weller (1987) has used the scale to study the relationship between philosophies of human nature and the perception of physical attractiveness, as well as the relationship between philosophies of human nature and same-sex orientation (Weller & Benozio, 1987).

Critique and Summary

Wrightsman's approach to world view is deliberately limited in scope, and within its appointed scope it points out important dimensions to be taken into account in the structure of a comprehensive world view model. These six dimensions relate to beliefs regarding human trustworthiness, altruism, strength of will / rationality, independence, variability, and complexity.

Lerner and Belief in a "Just World" (1965)

<u>Model</u>

Building on the work of Fritz Heider and others, Melvin J.

Lerner formulated the just world hypothesis:

> Individuals have a need to believe that they live in a world where people generally get what they deserve. The belief that the world is just enables the individual to confront his physical and social environment as though they were stable and orderly. Without such a belief it would be difficult for the individual to commit himself to the pursuit of long-range goals or even to the socially regulated behavior of day-to-day life. Since the belief that the world is just serves such an important adaptive function for the individual, people are very reluctant to give up this belief, and they can be greatly troubled if they encounter evidence that suggests that the world is not really just or orderly after all. (Lerner & Miller, 1978, pp. 1030-1031)

D. T. Miller considers the belief in a just world to be "one of the ways, if not *the* way, that people come to terms with—make sense out of—find meaning in, their experiences" (Lerner, 1980, p. vii, italics original). This single concept has generated a great deal of theory and research (Furnham & Procter, 1989; Lerner, 1980; Lerner & Miller, 1978), and is still an active area of research today (Hong, 1997). This model-building and research strongly suggests that beliefs regarding the justness of the world are an important aspect of a comprehensive model of the world view construct. However, the simple "belief in a just world" is insufficient to represent this aspect.

It seems that the belief that "the world is just" is an option within a larger dimension, which we might call World Nature. In the same way that Kluckhohn's Human Nature Orientation has such options as "good," "evil," "neutral," and "mixed," so too one might conceive of a World Nature dimension for which "just" is one option.

Indeed, Furnham and Procter (1989) have suggested three options: "just," "unjust," and "random," and have gone farther to indicate that each of these three belief options should be considered independently for each of three different "spheres of control": the personal, the interpersonal, and the political.

One instrument used frequently to assess belief in a just world is the Just World Scale (Rubin & Peplau, 1975; Whatley, 1993; cp. earlier version in Rubin & Peplau, 1973). Dozens, perhaps hundreds, of studies have used the Just World Scale since its first appearance, including recent studies of value priorities and self-esteem in relation to just world beliefs (Feather, 1991) and just world beliefs in twelve societies (Furnham, 1993). Lipkus (1991) has reported the development of two alternative scales based on this theoretical model, the Multidimensional Belief in a Just World Scale and the Global Belief in a Just World Scale.

Critique and Summary

A large number of studies has investigated the concept of the belief in a just world. Belief in a just world is a robust construct that has been associated with several cultural variables (Furnham, 1993), and even with recovery from myocardial infarction (Agrawal & Dalal, 1993). It appears that belief in a benevolent world is an aspect of world view that is strongly affected by trauma (Janoff-Bulman, 1992). Despite this, belief in a just world (or, more precisely, beliefs about the justness of the world) involves only a single dimension, albeit an important one, within a comprehensive model of world view.

Maslow and "World Outlooks" (1970)

<u>Model</u>

The psychologist Abraham H. Maslow may be best known for his theory of human motivation. It is rarely noted, however, that a model of world views is embedded within Maslow's work on motivation, a model that explicitly surfaces in discussions of the meaning of life as it appears to individuals at various stages of Maslow's motivational hierarchy. This linkage of world view, motivation, and meaning is a significant addition to the discussion of world view.

Maslow's theory states that human life exhibits a motivational hierarchy in which more basic, foundational needs are "prepotent," that is, they must be successfully addressed (and thus, in a sense, transcended) before needs higher up on the hierarchy attract significant attention from the organism. The ascending stages of the motivational hierarchy include the needs for physiological survival, safety, belongingness and love, esteem, and self-actualization (Maslow, 1970a).

These stages are well-known but do not represent the entire Maslovian hierarchy (Koltko-Rivera, 1996, 1998). Towards the end of his life, Maslow wrote of "individuals who have transcended self-actualization" (Maslow, 1969b/1971, p. 282) and experience a strong, undeniable motive towards not self-actualization but self-transcendence (Maslow, 1969a). That is, the individual seeks communion with the transcendent, with the Divine, and identifies "self" with something greater than the purely individual personality through certain kinds of "peak experiences," revelation, and transpersonal or mystical experience (Maslow, 1970b).

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Maslow noted that each stage of the motivational hierarchy can be characterized by a distinctive world view:

> [A] peculiar characteristic of the human organism when it is dominated by a certain need is that the whole philosophy of the future tends also to change. For our chronically and extremely hungry man, ... life itself tends to be defined in terms of eating. Anything else will be defined as unimportant. Freedom, love, community feeling, respect, philosophy, may all be waved aside as fripperies that are useless, since they fail to fill the stomach. Such a man may fairly be said to live by bread alone. . . .
>
> All that has been said to the physiological needs is equally true [of the safety needs]. . . . Again, as in the hungry man, we find that the dominating goal is a strong determinant not only of his current world outlook and philosophy but also of his philosophy of the future and of values. Practically everything looks less important than safety and protection . . . . A man in this state, if it is extreme enough and chronic enough, may be characterized as living almost for safety alone. (Maslow, 1970a, pp. 37, 39)

As it is with the physiological and safety needs, so it is with all the stages on the motivational hierarchy. Essentially, these stages define world views in terms of the meaning of life. This meaning may be defined as the search to secure survival, safety, belongingness/love, esteem, self-actualization or self-transcendence.

The Personal Orientation Inventory (Shostrom, 1964) has been used to operationalize Maslow's hierarchy, but this instrument is focused on motivation rather than on issues of life meaning or world view. It would appear that we lack instrumentation that operationalizes Maslow's theory as a model of world views.

Relation to Other Conceptions of World View

Maslow's is one of the few world view models to address the meaning of life. The issue of life's meaning would seem to be an important part of the world view of an individual, religion, or ethnic culture. This is evidenced not only on prima facie grounds, but by the thought of a few theorists who have directly addressed this issue. The meaning of life has been described as a central issue for individual psychology (Baumeister, 1991). The search for meaning is a crucial issue in existential psychotherapy (Yalom, 1980) and logotherapy (Frankl, 1946/1967, 1969). Some psychometric work has focused on the meaning of life; for example, the Study of Values essentially focuses on the purpose of life as a means of assessing personality along the lines of Eduard Spranger's *Types of Men* (Allport, Vernon, & Lindzey, 1960). However, aside from general investigations of meaning, some theorists have focused more explicitly on world view in relation to life purpose. One such was Robert de Ropp.

A contemporary of Maslow, and writing from a related stance in humanistic psychology, de Ropp (1968/1989) also focused on how world views define meanings of life. Although de Ropp's model is less well known, it is in some ways more detailed than Maslow's regarding the meaning of life. de Ropp described a series of "games" that define life meanings.

Roughly corresponding to the level of Maslow's esteem needs, de Ropp described games in which the meaning of life is, respectively, the search for Wealth, Fame, or Victory. Approximately at the level of Maslow's belongingness/love needs, de Ropp depicted a Householder

Game whose aim is to raise a family. Bridging Maslow's self-actualization and self-transcendence needs, de Ropp described separate games whose pursuits are, respectively, Beauty, Knowledge, Salvation, and Awakening (in the sense of spiritual enlightenment). (de Ropp also describes a nihilist or aimless approach to life.)

de Ropp's work underscores the importance of Maslow's insight into the importance of life meaning as an element of world view. In sum, it is clear that meaning / purpose of life would be an essential dimension of a comprehensive model of world view.

Coan's "Basic Assumptions" Model (1974)

Model

In an investigation of the personal and professional world views of psychologists and members of the general population, Richard W. Coan drew on a heterogeneous variety of sources to define several aspects of a world view construct. These sources include a priori philosophical considerations and, in particular, factors that emerged in factor analysis of scale items that Coan had developed. The essential aspects of his model of world view are as follows (adapted from Coan, 1979, pp. 31, 49-50, and Coan, 1974, pp. 116-117):

Voluntarism. Voluntarism refers to a belief that volition or will is a central feature in mental processes and constitutes an independent influence on behavior.

Determinism. Determinism refers to the viewpoint that behavior is completely explicable in terms of antecedent events.

Biological Determinism. This refers to the importance of genetic factors as determinants of observed characteristics in both the individual and the species.

Environmental Determinism. This refers to the social environment as a source of individual differences.

Finalism. This refers to the viewpoint that ends or purposes have a causal influence on behavior (Aristotle's "final causation").

Mechanism. This idea maintains that all activities and processes are completely explicable in terms of the laws of physical mechanics.

Emphasis on unconscious motivation versus Emphasis on conscious motivation. The concern here regards whether people are or are not aware of the primary sources of their actions.

Religion. The contrast here is between a conventional theistic religion versus a non-theistic viewpoint.

Productiveness versus Spontaneity. Productiveness involves an emphasis on the constructive utilization of time, on working toward future goals. Spontaneity is characterized by a present orientation, a stress on doing what one feels like at the moment—in some senses, a hedonistic or sensualist orientation.

Relativism versus Absolutism. Relativism represents a tolerant or liberal attitude in matters of value and truth. Absolutism represents an inclination to insist more dogmatically on one proper system of beliefs, standards, and actions.

Adventurous Optimism versus Resignation. Adventurous Optimism takes the stance that life is worthwhile, and it values living fully or self-actualizing. The position of Resignation is more

pessimistic and conservative, holding for the idea that the lot of humankind is either deteriorating or static. Because change means deterioration, someone working from the position of Resignation favors preservation of the status quo or turning to the ways of the past.

Coan studied these concepts through the use of two instruments. He used the Theoretical Orientation Survey (Coan, 1979) to study psychologists' theoretical positions, and the General Beliefs survey (Coan, 1974) to assess world views among the general population.

Critique and Summary

In a sense, Coan does not present a "model" so much as an aggregate of dimensions that are relevant to the study of world view. One appealing aspect of Coan's aggregation is that its dimensions are largely derived through factor analysis. This suggests that the dimensions are not merely the result of Coan's thought, but reflect an underlying psychological reality.

Several of Coan's dimensions mirror the dimensions of other models. The reader is referred to the discussions above regarding Freud and Kluckhohn. In addition, one can see Coan's biological and environmental determinism dimensions at work in recent discussions of the revival of Darwinism in social thought (Degler, 1991; Clark, Trahair, & Graetz, 1989). The fact that some of Coan's dimensions are shared across models suggests that these dimensions are valid aspects of world view. The dimensions that Coan appears to share with other models most frequently include voluntarism, determinism, biological determinism, and environmental determinism (which four

dimensions might usefully be combined into an overarching

dimension of Volition), as well as religion, productiveness versus

spontaneity, and relativism versus absolutism.

Sue's Fourfold Loci Model (1978)

Model

Derald Wing Sue (D. W. Sue, 1978a, 1978b; D. W. Sue & D. Sue,

1999) has articulated a model of the world view construct built entirely

upon two dimensions: locus of control and locus of responsibility.

Locus of control is defined by Sue as it was for Rotter, the

originator of the concept:

> When a reinforcement is perceived by the subject as following some action of his own but not being entirely contingent upon his action, then, in our culture, it is typically perceived as the result of luck, chance, fate, as under the control of powerful others, or as unpredictable because of the great complexity of the forces surrounding him. When the event is interpreted in this way by an individual, we have labeled this a belief in *external control*. If the person perceives that the event is contingent upon his own behavior or his own relatively permanent characteristics, we have termed this a belief in *internal control*. (Rotter, 1966, p. 1)

While locus of control refers to the perceived control of

contingencies or reinforcements, locus of responsibility refers to

perceived blame or responsibility:

> In essence, this dimension [i.e., locus of responsibility] measures the degree of responsibility or blame placed on the individual or system. . . . Those who hold a person-centered orientation [i.e., internal locus] (a) emphasize the understanding of a person's motivations, values, feelings, and goals, (b) believe that success or failure is attributable to the individual's skills or personal inadequacies, and (c) believe that there is a strong relationship between ability, effort, and success in society. . . . On the other hand, *situation-centered* or *system-blame* people [i.e., those who

hold an external locus] view the sociocultural environment as more potent than the individual. (D. W. Sue & D. Sue, 1999, p. 171, emphasis in original)

D. W. Sue and D. Sue (1999) defined four world views, one for each of the possible combinations of internal and external locus of control and internal and external locus of responsibility. Differences among these world views may become apparent in a consideration of how each world view confronts racial prejudice and discrimination. (1) The Internal locus of control—Internal locus of responsibility world view holds that individuals are masters of their fate; actions affect outcomes; success is due to one's own efforts; failure is due to one's shortcomings. Hence, prejudice and discrimination are probably deserved, but may be overcome by individual effort. (2) The External locus of control—Internal locus of responsibility world view individuals feel powerless to change the circumstances of prejudice, and feel that "the plight of their own people is due to laziness, stupidity, and a clinging to outdated traditions" (p. 149). (3) Individuals with an External locus of control—External locus of responsibility world view feel that society is to blame for prejudice, but there is little one can do to ameliorate it. (4) The Internal locus of control—External locus of responsibility world view states that discrimination is caused by society, but that individuals may work to combat this discrimination.

Rotter (1966) developed the original scale to assess locus of control, which has since been adapted by many authors to study the construct in a variety of realms (Lefcourt, 1982). Locus of responsibility has not been the focus of as much research (see references in D. W. Sue

& D. Sue, 1999), although an instrument has been developed for its assessment (Latting & Zundel, 1986).

Critique and Summary

A careful reading of Sue's original formulations of locus of responsibility (D. W. Sue, 1978a, 1978b), compared with Rotter's (1966) description of locus of control, leads to an interesting conclusion about the nature of these constructs. Locus of responsibility focuses upon the extent to which societal forces ("powerful others," in Rotter's phrase), impose restrictions upon ("control") the individual's opportunities for success ("reinforcement"). Phrased in this manner, such a comparison suggests that, despite a superficial difference created by the addition of language involving attribution and blame, locus of responsibility is actually a special case, as it were, of locus of control. Locus of responsibility is locus of control, restricted in scope to focus on the perceived power that societal forces have to control one's opportunities for success in life. Locus of control is a more general, and much less focused, construct, which conceptually pertains, not only to the role that social forces play in affecting one's opportunities, but also to the role of luck, destiny, and chance.

Sue's model is concise and parsimonious. These dimensions have been studied by a number of researchers; they have been identified as among the beliefs most affected by the experience of trauma (Janoff-Bulman, 1992). However, although the dimensions of locus of control and locus of responsibility are doubtless important for a comprehensive model of world view, these dimensions clearly leave

a great deal of conceptual territory uncovered. This may be why in recent years Sue has also paid much attention to the Kluckhohn model of world view (comparing, e.g., D. W. Sue, 1981, with D. W. Sue & D. Sue, 1999).

Other Models

The preceding theorists are only the most prominent of those who have conceptualized world view. Other theorists have touched upon the concept while engaged in other fields of study. Of these, perhaps the most prominent are the gender theorists who have written most cogently about differences in male and female views on moral reasoning, moral education, and communication (Gilligan, 1982; Noddings, 1984; Tannen, 1990).

A provocative model of world view has been described by Messer (1992), who put forth a categorical model of world views built on the tragic, ironic, and comedic modes of literary analysis described by Frye (1957). Another categorical model of world view is that of M. E. Miller, who devised a two-dimensional grid based on attitudes about epistemology and teleology that yields nine different world views; these have been shown to be related to occupational choice (M. E. Miller & West, 1993). It is too early yet to see what will be the ultimate utility and importance of these models.

A categorical model of some importance to European researchers is that used by the World View Project, a joint research project centered on the work of researchers in Finland and Sweden, but involving scholars internationally (Holm & Björkqvist, 1996). This model

assesses belief in terms of 14 world views (themselves categorized as religious, non-religious, or quasi-religious/occult world views), using an instrument known as the World View Inventory (Holm & Björkqvist, 1996, Appendix A). A substantial body of research is beginning to accumulate under this model, and it is likely to attract much research attention from researchers in categorical paradigms in the United States and elsewhere.

A final example of a noteworthy categorical model is provided by the transpersonal theorist, Ken Wilber. Wilber has noted that each of the stages of his model of human consciousness development has a characteristic world view, constructed around differing notions of personal and group identity (Wilber, 1986d/1999c, 1999b). Although Wilber's theories have been the object of criticism (Ellis, 1986, 1989; Schneider, 1987, 1989; cp. Koltko, 1989; Wilber, 1989a, 1989b, 1989c), the interest shown in Wilber's formulations by a wide variety of transpersonal psychologists (Walsh & Vaughan, 1993) suggests that this body of theory will be important in future formulations of the world view construct and its assessment.

APPENDIX B

A CONSOLIDATION OF MODELS OF WORLD VIEW:
THE COLLATED APPROACH

The world view concept has differed from many concepts in psychology in that it did not possess a widely agreed-upon conceptual definition at any time, even among those who earliest used the term in psychology. As opposed to concepts like "dynamic unconscious" or "learned helplessness," where early theoreticians proposed conceptual definitions that large numbers of subsequent investigators used and, perhaps, refined, the world view construct has been defined and redefined in idiosyncratic ways by different investigators.

It is possible to take a "big tent" approach, as it were, that incorporates the various elements of different models of the world view construct into one reasonably comprehensive scheme. (The need for the qualifier "reasonably" will become apparent momentarily.) Now it is possible to pull together the various dimensions which have been used to describe world view in the models related in Chapter II and Appendix A.

Choosing Dimensions

In a sense, a truly comprehensive list of world view dimensions is impossible to compile. Depending upon the degree of specificity one wishes to employ, there might be an unmanageably large number of world view dimensions to consider.

For example, it seems reasonable to consider a dimension regarding whether human beings are by nature good or evil, as does F. Kluckhohn (1950; Kluckhohn & Strodtbeck, 1961/1973). It even makes sense to take a more fine-grained analysis and investigate people's attitudes about whether or not human beings are inherently trustworthy, or altruistic, a direction taken by Wrightsman (1992). But where does one stop? In principle, one could consider world view dimensions regarding whether or not people are inherently insouciant, litigious, or inclined to falsify their postal codes.

In short, the choice of what dimensions to consider as elements of the world view construct is an unavoidably arbitrary one, made in a dynamic tension between the contradictory aspirations to comprehensiveness and parsimony. The outline of world view dimensions given later in this appendix should be viewed in this light.

Structure of a Collated Approach to World View

It is worthwhile to recast the models that have been described, to consolidate similar dimensions, and to gather dimensions under appropriate headings. This is a "bottom-up" or synthetic approach to conceptualizing a construct (as opposed to an a priori approach). Table 21 below illustrates such an approach. This conceptualization includes the dimensions that have a place in the models mentioned in Chapter II and Appendix A, as well as a few other dimensions that seem to be important to include in a comprehensive account of the world view construct. Descriptions follow the table.

Table 21

A Collated Approach to World View: Grouped Dimensions and Options

Group	Dimension	Options
Fundamental Human Nature	Moral Orientation	Good
		Evil
		Mixed or Neutral
	Mutability	Changeable
		Permanent
	Complexity	Complex
		Simple
	[Specific Qualities]	
Will	Agency	Voluntarism
		Determinism
	Determining Factors	Biological Determinism
		Environmental Determinism
	Intrapsychic	Rational—Conscious
		Irrational—Unconscious

(table continues)

Table 21. *(continued)*

Group	Dimension	Options
Cognition	Knowledge	Authority
		Tradition
		Senses
		Rationality
		Science
		Intuition
		Divination
		Revelation
		Nullity
	Consciousness	Ego Primacy
		Ego Transcendence
Behavior	Time	Past
		Present
		Future
	Activity Direction	Inward
		Outward
	Activity Satisfaction	Movement
		Stasis
	Moral Source	Human Source
		Transcendent Source

(table continues)

Table 21. *(continued)*

Group	Dimension	Options
Behavior *(continued)*	Moral Standard	Absolute Morality
		Relative Morality
	Locus of Control	Internal Control
		External Control
	Locus of Responsibility	Internal Responsibility
		External Responsibility
	Action Efficacy	Direct
		Thaumaturgic
Interpersonal	Relation to Authority	Linear
		Lateral
	Relation to Group	Individualism
		Collectivism
	Relation to Species	Ethnocentrism
		Speciecentrism
		Vivicentrism
	Sexuality	Procreation
		Pleasure
		Relationship
		Sacral

Table 21. *(continued)*

Group	Dimension	Options
Interpersonal *(continued)*	Dependence	Dependent
		Independent
		Interdependent
	Interpersonal Justice	Just
		Unjust
		Random
	Sociopolitical Justice	Just
		Unjust
		Random
	Interaction	Competition
		Cooperation
		Disengagement
	Correction	Rehabilitation
		Retribution
Truth	Certitude	Absolute Certitude
		Relative Certitude
	Provenance	Exclusive Provenance
		Inclusive Provenance
	Scope	Limitless Scope
		Limited Scope

Table 21. *(continued)*

Group	Dimension	Options
World and Life	Metaphysics	Spiritualism
		Materialism
	Cosmos	Random
		Planful
	Unity	Many
		One
	Deity	Deism
		Theism
		Agnosticism
		Atheism
	Nature-Consciousness	Nature Conscious
		Nature Non-Conscious
	Biogenesis	Evolution
		Introduction
	Humanity-Nature	Subjugation to Nature
		Harmony with Nature
		Mastery over Nature
	World Justice	Just
		Unjust
		Random

Table 21. *(continued)*

Group	Dimension	Options
World and Life *(continued)*	Well-Being	Science—Logic Source
		Transcendent Source
	Explanation	Formism
		Mechanism
		Organicism
		Contextualism
	Worth of Life	Optimism
		Resignation
	Purpose of Life	Nihilism
		Survival
		Pleasure
		Belonging
		Power
		Self-Actualization
		Self-Transcendence

One advantage of a synthetic approach is that this conceptualization is inherently interdisciplinary, including aspects of models arising from philosophy, anthropology, psychoanalysis, social learning, and other perspectives. One disadvantage of a synthetic approach is that there is still no guarantee that this is an exhaustive set

of dimensions. There may still be other important dimensions of world view that have eluded the present conceptualization.

It is the belief of the present author that the synthetic approach is the most practical approach to a conceptualization of world view at the present time. The top-down approach taken by some previous investigators is one in which a priori logical considerations, professional inclinations, or purely personal interests dictated the shape of their models of world view. Such an approach left large gaps in those models. A bottom-up, synthetic approach seems likely to yield a more comprehensive conceptualization. It is anticipated that subsequent investigators will critique the present approach and provide the basis for ever more comprehensive models in the future.

Groups and Dimensions of the Collated Approach

The collated approach to world view includes groups, each of which gathers together two or more similar dimensions of the world view construct. Each dimension deals with a particular topic of world view beliefs, and includes two or more options, or positions that a person may take on the topic that the dimension addresses. For example, the Fundamental Human Nature group gathers together four dimensions that address several topics concerning human nature. One of these dimensions is Moral Orientation, and refers to beliefs about the basic moral orientation of human nature. The options available in this dimension are good, evil, and mixed or neutral.

The collated approach includes seven groups, each with from two to twelve dimensions. Each of the dimensions has from two to

eight options. The remainder of this appendix involves a detailed description of the groups, dimensions, and options. It is important to note that, throughout this conceptualization, for some dimensions, as noted, options are *not* mutually exclusive. For such dimensions, each option thus is a sub-dimension, a polarity of the form "A" versus "not A." (E.g., in the Knowledge dimension, the Intuition option is a sub-dimension, representing a contrast between the poles of belief, "Intuition is a valid source of knowledge" and "Intuition is *not* a valid source of knowledge.")

The Fundamental Human Nature Group

The Fundamental Human Nature group includes beliefs about the essentials of human nature. This group contains three dimensions proper and a catch-all dimension to allow for further expansion of the model. The dimensions within this group include *Moral Orientation, Mutability, Complexity,* and *Specific Qualities.*

The *Moral Orientation* dimension refers to beliefs about the basic moral orientation of human beings. The options here are Good, Evil, and Mixed or Neutral. This is Kluckhohn's Human Nature Orientation.

The *Mutability* dimension refers to beliefs about the changeability of human nature. The options here are Changeable and Permanent. This was, for Kluckhohn, a sort of sub-dimension. It also reflects an aspect of Wrightsman's dimension, Variability vs. Similarity.

The *Complexity* dimension reflects beliefs about whether human nature is complicated. The options here are Complex and Simple. This reflects Wrightsman's similar dimension.

The *Specific Qualities* dimension refers to beliefs about whether certain specific qualities are basic to human nature. For example, Wrightsman's dimensions, "Trustworthiness vs. Untrustworthiness," and "Altruism vs. Selfishness," would find a place in this dimension. This dimension is left with unspecified options, because it serves as a placeholder for any dimensions that refer to specific qualities of the sort that Wrightsman's two dimensions above deal with.

The Will Group

The Will group includes dimensions that refer to beliefs about the agentic, purposeful function in human life, including dimensions dealing with free will, determinism, and the rational and irrational roots of behavior. The dimensions in this group include *Agency*, *Determining Factors*, and the *Intrapsychic* dimension.

The *Agency* dimension refers to beliefs about whether human beings have free will and choose behavior, or live under the conditions of so-called "hard" determinism, where all behavior is determined in one way or another. The options for this dimension are Voluntarism (i.e., free will is real) and Determinism (i.e., *all* behavior is determined). This dimension is seen in the thought of Freud and emerged as four separate dimensions in Coan's model.

The *Determining Factors* dimension reflects beliefs about which factors do influence behavior, regardless of whether behavior is subject

to "hard" determinism or some degree of free choice. The non-mutually-exclusive options for this dimension are Biological Determinism (reflecting genetic factors) and Environmental Determinism (reflecting social factors). This dimension is seen in the Environmental and Biological Determinism dimensions in Coan's model.

The *Intrapsychic* dimension reflects beliefs about whether behavior is always chosen rationally and consciously, or also has its roots in irrational or unconscious sources. The options for this dimension are Rational—Conscious and Irrational—Unconscious. This dimension is seen in the thought of both Freud and Coan.

The Cognition Group

The Cognition group includes dimensions regarding beliefs about the human mind and knowledge. The dimensions in this group include *Knowledge* and *Consciousness*.

The *Knowledge* dimension refers to epistemological beliefs about reliable sources of knowledge. The non-mutually-exclusive options in this dimension include Authority, Tradition, Senses, Rationality (i.e., logical processes alone), Science, Intuition, Divination, Revelation, and Nullity (referring to the belief that there are no reliable sources of knowledge). Each of these options occurs in the thought of Freud, Royce, or both.

The *Consciousness* dimension refers to beliefs about whether the highest-developed form of human cognition occurs within the context of ego cognition, or transcends the ego in what are described as

peak, mystical, or transpersonal experiences. The options in this dimension are Ego Primacy and Ego Transcendence. This dimension reflects the contributions of Stace, Maslow, and contemporary transpersonal psychology.

The Behavior Group

The Behavior group includes dimensions which refer to beliefs about behavior, in terms of its focus, results, or guidelines. The dimensions included in this group are *Time, Activity Direction, Activity Satisfaction, Moral Source, Moral Standard, Locus of Control, Locus of Responsibility,* and *Action Efficacy.*

The *Time* dimension refers to the temporal focus of behavior. The options in this dimension are Past (i.e., tradition and stability are valued), Present (i.e., the present moment is focused upon), and Future (i.e., future rewards and planning are emphasized). This is the Time Orientation in Kluckhohn's model.

The *Activity Direction* dimension refers to the proper directional focus of behavior. Non-mutually-exclusive options: Inward (i.e., focus is on internal qualities such as affect, spirituality, personality attributes) and Outward (i.e., focus is on external qualities such as achievement or possessions). This dimension and the following one are refinements of the Activity dimension in Kluckhohn's model.

The *Activity Satisfaction* dimension refers to whether the proper aim of behavior is seen to be Movement (e.g., improvement, change) or Stasis (e.g., enjoyment of the status quo or present situation).

The *Moral Source* dimension refers to beliefs about the source of accepted moral guidelines. The options in this dimension are Human Source (i.e., human society is ultimately the source of all accepted moral guidelines) and Transcendent Source (i.e., there is a source of accepted moral guidelines which transcends human society, such as a divine being or force). This dimension is implicit in various places in the thought of Freud.

The *Moral Standard* dimension refers to beliefs about the relativity of moral guidelines. The options in this dimension are Absolute Morality (i.e., moral guidelines are absolute) and Relative Morality (i.e., moral guidelines are relative to time, culture, or situation). This dimension is mentioned in Coan's scheme.

The *Locus of Control* dimension refers to beliefs about personal versus chance determinants of outcomes in life. The options in this dimension are Internal Control (i.e., it is a person's efforts and characteristics that make for success or failure in life) and External Control (i.e., success or failure in life are essentially a matter of chance). This dimension is thus a slight narrowing of Rotter's locus of control construct, which figures prominently in Sue's model of world view.

The *Locus of Responsibility* dimension refers to beliefs about personal versus societal determinants of outcomes in life. The options in this dimension are Internal Responsibility (i.e., it is a person's efforts and characteristics that make for success or failure in life) and External Responsibility (i.e., success or failure in life are essentially a result of larger social forces such as prejudice or social injustice). This dimension is reflected in Sue's model of world view.

The *Action Efficacy* dimension refers to beliefs about what kinds of actions are effective in creating change in the world. The non-mutually-exclusive options in this dimension are Direct (i.e., direct action taken by the person is effective in creating change) and Thaumaturgic (i.e., the person can take effective action by involving a transmundane force, through magic, ritual, sacrament, or prayer). This dimension appears in the thought of Freud as an aspect of world views. A belief in the efficacy of indirect or thaumaturgic action is evidenced by anyone who engages in prayer or performs a spiritually-oriented ritual to achieve a desired result. This belief is held by many people in numerous cultures who are engaged in a quest for spiritual development.

The Interpersonal Group

This group includes dimensions that refer to beliefs about the "proper" or natural characteristics of interpersonal relationships and collectivities. The dimensions included in this group are *Relation to Authority, Relation to Group, Sexuality, Dependence, Interpersonal Justness, Sociopolitical Justness,* and *Interaction.*

The *Relation to Authority* dimension refers to beliefs about what forms of authority are best or natural. The options in this dimension are Linear (i.e., the preference is for a clearly defined leader and relatively fixed hierarchy where authority is exercised in a top-down manner) and Lateral (i.e., the preference is for an equalitarian group with rotating or fluid leadership). This is an articulation of an aspect of Kluckhohn's Relational Orientation.

The *Relation to Group* dimension refers to beliefs about the natural priority of the personal agenda versus the group's agenda. The options in this dimension are Individualism (i.e., the individual's plans and goals have priority over the group's needs) and Collectivism (i.e., the group's agenda has priority over the individual's personal plans and goals). This is also an articulation of Kluckhohn's Relational dimension.

The *Relation to Species* dimension refers to beliefs about the natural priority of the rights, privileges, and prerogatives of one's ethnic, religious, or cultural group of reference versus the rights of all people. The options in this dimension are Ethnocentrism (i.e., the rights, privileges, and prerogatives of one's own group have priority over those of other groups), Speciecentrism (i.e., all people have the same rights, privileges, and prerogatives), and Vivicentrism (i.e., all living things, human and non-human, have equivalent rights). This dimension is a reflection of the Relation to Group dimension on a higher order of social abstraction.

The *Sexuality* dimension refers to beliefs about the focus, aim, or purpose of interpersonal sexual activity. The non-mutually-exclusive options in this dimension are Procreation, Pleasure, Relationship (i.e., the purpose of sexual behavior is to deepen the relationship between the sexual partners), and Sacral (i.e., the purpose of sexual behavior is to experience a "spiritual" dimension of human experience that transcends the mundane). This is an aspect of Maslow's model (Maslow, 1969b/1971, p. 286). A sacral approach to sexuality has been

found in many cultures throughout history (I. Serlin, 1986; Stevens, 1999; Tenzin Gyatso, 1995).

The *Dependence* dimension refers to beliefs about the natural degree of dependence or independence that people should have in relation to groups with which they are associated. The options within this dimension are Dependent (i.e., it is believed that people conform to group pressures), Independent (i.e., it is believed that people act relatively independently from group pressures), and Interdependent (i.e., it is believed that people act from within a context of dynamic tension created by group pressures and individual needs). This dimension is adapted from Wrightsman's model of world view.

The *Interpersonal Justice* dimension reflects beliefs about how just are the outcomes of interactions in small groups, families, and dyads. The options of this dimension are Just, Unjust, and Random (i.e., neither systematically just nor systematically unjust). This dimension reflects Furnham and Procter's reassessment of Lerner's work regarding the belief in a just world (Furnham & Procter, 1989).

The *Sociopolitical Justice* dimension reflects beliefs about how just are the actions of social and political collectivities (i.e., on a larger scale than the groups mentioned in the preceding paragraph). The options of this dimension are Just, Unjust, and Random. (Here also, see Furnham & Procter, 1989.)

The *Interaction* dimension refers to beliefs regarding the orientation towards others that should be taken by default in social situations. The options of this dimension are Competition (i.e., one sees oneself in a competitive situation), Cooperation (i.e., one sees

oneself in a potentially mutually gratifying cooperative enterprise or activity), and Disengagement (i.e., one sees oneself as uninvolved with others, even in social situations). Although this dimension is not reflected in the major models summarized earlier, it reflects an important distinction. This dimension is reflected in part in research regarding the effect of trauma on beliefs regarding mutuality in relationships (Behrman, 1995).

The *Correction* dimension refers to beliefs regarding the proper attitude to take towards people who have transgressed an important social standard (e.g., criminals). The options of this dimension are Rehabilitation (i.e., such people should be helped to establish prosocial and productive ways of life) and Retribution (i.e., such people should be punished).

The Truth Group

This group includes dimensions relating to the stance that an individual takes towards what this person holds as "the Truth," whether that truth be expressed as a doctrine of philosophy or religion (e.g., Torah, the *Tao*, the Gospel), of politics (e.g., Marxism—Leninism), or of a professional discipline (e.g., positivistic scientific method). Each of these dimensions is reflected in the conceptualizations of Abraham Maslow (1968, 1969b/1971, 1970b) in personality theory and James Fowler (1981) in developmental psychology and the psychology of religion. These are the dimensions of *Certitude, Provenance,* and *Scope.*

The *Certitude* dimension reflects beliefs about the degree to which the truth that one holds is valid across situations. The options within this dimension are Absolute Certitude (i.e., the truth at issue is true always and everywhere) and Relative Certitude (i.e., the truth at issue varies in its accuracy depending upon circumstances).

The *Provenance* dimension reflects beliefs about the degree to which a true and valid approach to life and knowledge about the world is the exclusive possession of the reference group of the person being assessed. The options within this dimension are Exclusive Provenance (i.e., "only we have the truth") and Inclusive Provenance (i.e., "other people who are very different from us have the truth, too").

The *Scope* dimension concerns the comprehensiveness of the truth held by the person's reference group. The options within this dimension are Limitless Scope (i.e., "we have it all") and Limited Scope (i.e., "there is much truth that we do not yet have").

The World and Life Group

This group includes dimensions relating to life, the world, Nature, reality, and the universe. These dimensions are: *Metaphysics, Cosmos, Unity, Deity, Nature-Consciousness, Humanity-Nature, World Justness, Well-Being, Explanation, Worth of Life,* and *Purpose of Life.*

The *Metaphysics* dimension reflects beliefs about the underlying existential nature of the universe. The options within this dimension are Spiritual (i.e., there is a spiritual dimension to reality that is ontologically real) and Materialist (i.e., nothing exists but quotidian

matter and energy). This dimension captures some of the thought of Freud on world views, and is implicit in Stace's model as well.

The *Cosmos* dimension reflects beliefs about the creation of the universe and the life within it. The options within this dimension are Random (i.e., the universe and life came about by chance, without purpose) and Planful (i.e., the universe and life are the result of some transcendent plan or purpose). This dimension is suggested by some of the distinctions that Freud made between the scientific and religious Weltanschauungen; it is also suggested by some recent disputes regarding cosmological and evolutionary theory (Barrow & Tipler, 1988; Dawkins, 1987; Wright, 2000).

The *Unity* dimension reflects beliefs regarding the nature of reality, as being either a collection of many different and conflicting entities and concepts, or a manifestation of an underlying singular reality where paradoxes and conflicts are transcended. The options of this dimension are Many and One. This dimension is suggested by the contribution of Stace regarding the mystical world view. This dimension reflects a fundamental issue (Ewing, 1962) that has occupied philosophers and mystics throughout Eurasia since at least the Fourth Century BCE, as evidenced by the writing of Plato's *Parmenides* in Greece (Cornford, 1939/1961), the *Tao Te Ching* in China (Mair, 1990), and the *Bhagavad Gita* in India (B. S. Miller, 1986).

The *Deity* dimension reflects beliefs regarding the nature of a deity or supreme being. The options of this dimension are Deism ("God" exists as an impersonal Force), Theism (God/-s/Goddess/-es exist as a personal being or beings), Agnosticism (one either does not or

in principle can not know about the existence of a deity), and Atheism (there is no deity). This dimension reflects a crucial philosophical matter (Ewing, 1962, p. 237); its importance for clinical work is suggested by the work of Kahoe (1987), and D. Smith (1980; cp. Tindall, 1980), who have considered an understanding of this dimension to be crucial in working with individuals in counseling and psychotherapy.

The *Nature-Consciousness* dimension refers to beliefs about the existence of consciousness within non-human "natural" phenomena (e.g., rocks, trees). The options in this dimension include Conscious and Non-conscious. This dimension is suggested by the contribution of Stace regarding the mystical world view.

The *Biogenesis* dimension reflects beliefs regarding the origins of intelligent life on earth. The options in this dimension are Evolution (i.e., intelligent life developed as a result of some sort of Darwinian process of natural selection from other forms of life) and Introduction (i.e., intelligent life was introduced to the earth fully formed through a process of, e.g., special creation). This dimension is of relevance to ongoing cultural conflicts regarding the origins of humankind (Behe, 1996; Berra, 1990; Milton, 1992/1997), which have continued since the time of Darwin's publications on natural selection in the 19th Century (Darwin, 1859/1985, 1871/1981).

The *Humanity-Nature* dimension refers to beliefs regarding the proper relationship between human beings and the natural world (and, to some extent, between human beings and "supernatural" forces and Fate). The options in this dimension are Subjugation to Nature (i.e., people are at the mercy of Nature and Fate), Harmony with Nature

(i.e., people are a part of nature), and Mastery over Nature (i.e., it is humanity's place to subdue nature for human purposes). This dimension is Kluckhohn's Man-Nature Orientation.

The *World Justice* dimension refers to beliefs regarding whether the world as a whole (not in its socio-political aspects) functions in a just manner. The options in this dimension are Just, Unjust, and Random. This dimension reflects Furnham and Procter's (1989) revision of Lerner's model regarding the belief in a just world.

The *Well-Being* dimension refers to beliefs regarding the sources of principles to follow in order to further one's health and safety. The non-mutually-exclusive options in this dimension are Science—Logic Source (i.e., well-being comes about through adherence to principles gleaned from empirical observation, scientific findings, and logic) and Transcendent Source (i.e., well-being comes about through obedience to principles which which derive from some source beyond human science or logic, e.g., "divine law" or "the Tao"). This dimension was mentioned in Freud's thought regarding Weltanschauungen.

The *Explanation* dimension refers to preferences for metaphors to use in explaining and understanding events in the world. The options in this dimension are Formism (explanation on the basis of class or category membership), Mechanism (explanation on the basis of cause-and-effect chains), Organicism (explanation on the basis of organic processes), and Contextualism (explanation on the basis of context). This dimension reflects the world hypotheses model of Pepper.

The *Worth of Life* dimension reflects beliefs about the worth of living. The options in this dimension are Optimism (i.e., life is seen as worthwhile, and self-actualization is seen as an important activity) and Resignation (i.e., life is seen as inevitably headed for deterioration). This dimension appears in the work of Coan.

The *Purpose of Life* dimension refers to belief about an individual's purpose in living. The options in this dimension are Nihilism, Survival, Pleasure, Belonging, Power, Self-Actualization, and Self-Transcendence. This dimension and its options are based on the work of Maslow and, to a lesser extent, that of de Ropp.

Complexity in Approaches to World View

It might be asked, could not a simpler scheme be used to describe world view? This author does not believe so. The multiplicity of barely-overlapping models about world view illustrates that there is a large number of important dimensions. In a sense, world view modeling is like personality theory in this way. Although some simpler conceptions exist, such as the Big Five Factors approach (John & Srivastava, 1999; McCrae & Costa, 1999; Wiggins, 1996), contemporary schemes of classifying personality tend to the complex, whether what is being described is psychopathology (e.g., *DSM-IV*, 1994), or the healthy personality (e.g., the 16 personality types described by the Myers-Briggs Type Indicator, based on Jungian personality theory; Briggs-Myers & McCauley, 1985; Jung, 1921/1971).

To some extent, the question of how many dimensions world views encompass is an empirical one. If one starts out with a more

complex approach, it is possible that research will reveal a simpler structure (e.g., through the use of factor analysis). Starting out with the converse, a too-simple model, makes it difficult to determine whether a more complex approach is needed. Consequently, this writer considers it appropriate at the current state of knowledge to propose a multifaceted conceptualization, trusting that further research will reveal those dimensions that should be collapsed together.

APPENDIX C

INSTRUMENT PROTOCOL FOR STUDY 5:
DEVELOPMENT VERSION 5
AND DEMOGRAPHIC QUESTIONNAIRE

Following this page is the protocol containing Development Version 5 (150 items) and the Demographic Questionnaire, administered during Study 5. (The protocol contained herein has been reformatted in terms of margins, spacing, and column widths to meet dissertation requirements, and page headers have been deleted; in every other respect it is identical to the protocol as administered to participants.) The items of Development Version 5 are presented, sorted by scale, in Appendix D. The responses of 291 participants to these materials were analyzed and are reported in Chapter IV, Results, leading to the development of the Worldview Assessment Instrument, or WAI (Appendix G).

WAI Scale (V.23-S)

Instructions

This is a survey of attitudes. There are no right or wrong answers. The best answer is what you feel is true for you.

Please respond to *each* of the items by CIRCLING *one and only one* of the following:

| Disagree Strongly | Disagree Moderately | Disagree A Bit | Cannot Say | Agree A Bit | Agree Moderately | Agree Strongly | ?? |

Mark "??" if you *do not understand* what the item means.

Mark "**Cannot Say**" if you cannot decide whether you agree or disagree with the item. Please try to use the "Cannot Say" response as little as possible.

Please respond as quickly as possible to each item. Don't think a lot about each item — what **first** comes to mind is how you should respond. **Please work alone on this survey.**

	Statement							
1.	At work, managers should make decisions for the workers to follow, rather than discussing them along with the staff.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
2.	My family's needs come before my own.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
3.	In team sports, it is better to contribute to the overall performance of the team rather than to be an outstanding individual player.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
4.	Poor people can justly blame society for their position in life.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
5.	No one possesses 'spiritual powers.'	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
6.	In the case of the well prepared student there is rarely if ever such a thing as an unfair test.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
7.	When people enter the Armed Forces, that's because they want to serve the country.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
8.	People can actually receive revelation or visions from the spiritual realm.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??

	Statement	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
9.	It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
10.	The 'insiders' run the government for their own benefit, and there is little that law-abiding citizens can do about it.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
11.	Depending on how children are raised, they could grow up to be basically kind or basically cruel people.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
12.	Spiritual experiences can truly put a person in touch with the divine.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
13.	When I make plans, I am almost certain that I can make them work.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
14.	Free will is part of human nature.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
15.	What I think I should do is more important to me than what the leaders of my spiritual community think I should do.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
16.	No other group of people can help you up the ladder of success if you lack skills and determination.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??

		Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
17.	Many times I feel that I have little influence over the things that happen to me.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
18.	If I were a parent of young teenagers, I would usually consult my children about decisions that affect them.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
19.	Who gets to be the boss often depends on who was lucky enough to be in the right place first.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
20.	People decide to have good work habits; it is not just that they were taught to have them.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
21.	If I don't take care of myself, no one else will.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
22.	For the most part, the government expresses the will of the people.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
23.	Even the best of teachers cannot improve a student who is lazy.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
24.	In a group, decisions should be made by the group as a whole, not by the leaders alone.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??

#	Statement								
25.	If I were out with a group of friends, I might do what everybody else wanted to do even if I didn't care much for the idea.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
26.	We are creatures of habit, and we cannot change really strong habits by our own efforts alone.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
27.	If a person uses enough of the wrong type of drugs, even the best of people might become permanently self-centered and nasty.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
28.	Criminals chose to be criminals; it is not just the way they were raised or the friends they had.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
29.	Homes break up because of poverty and unemployment.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
30.	I vote for what is best for the community as a whole, rather than what is best for me personally.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
31.	People act the way they were taught; they don't "decide" their behavior any more than they pick the weather.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
32.	A great teacher could improve someone's behavior for life.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??

#	Statement								
33.	Sometimes I feel that I don't have enough control over the direction my life is taking.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
34.	No matter how children are raised, it does not change their basic personalities.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
35.	Poverty exists because some social classes are selfish.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
36.	People's behavior is based on reflexes and how they have been taught to behave.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
37.	A lazy or delinquent child will likely become a lazy or criminal adult, no matter what family members or teachers or police do.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
38.	Really nice people are that way because they were taught to be so.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
39.	I would offer my life in exchange for the lives of ten people chosen at random from my neighborhood (not relatives).	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
40.	The spiritual side of life should affect how we live our everyday lives.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
41.	Prayer may make someone feel good, but otherwise it is pointless.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??

		Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
42.	No amount of personal effort can change someone's basic personality.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
43.	The idea of "free will" is a joke: there is no such thing.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
44.	Human beings are like computers: controlled by their programming, and without real choice.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
45.	A tragic accident can make a basically happy person into a thoroughly bitter one ever afterwards.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
46.	Whether a person is honest or criminal is entirely because of what this person has learned from family and friends.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
47.	As an employee, I follow my own priorities in my work, even when these are different from the company's priorities.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
48.	Authority should be shared, rather than concentrated in the hands of a few leaders.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
49.	Poor people can justly blame rich people for their position in life.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??

	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
50. In a company, it is better to contribute to the overall performance of one's department rather than to just further one's career.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
51. When people enter the Armed Forces, that's because it's often the only job they can find.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
52. My own spiritual quest is more important than fulfilling the expectations of my religious group.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
53. Criminals cannot be rehabilitated.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
54. Other people must take care of themselves; I've got to look out for Number One.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
55. It may take a lot of effort, but a person can decide to change even a very old habit.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
56. Anyone who really values education will be sure to graduate from high school, at least.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
57. If I were a medical doctor, I would set out options for a patient to consider, rather than dictate instructions for a patient to follow.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??

		Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
58.	Nothing is really 'dead': spirit infuses everything and everyone.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
59.	No matter how long you know someone, that person will still act in ways that surprise you at least once in a while.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
60.	A school that was too strict could turn a basically cheerful person into someone who was chronically depressed.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
61.	At home, important decisions should be made by the parents and children together.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
62.	I value my own freedom above even my family relationships.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
63.	One of the major reasons why we have wars is because people don't take enough interest in politics.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
64.	A proper upbringing can change a child who has been very disobedient.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
65.	Employees should change their vacation plans if there is an emergency on the job.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
66.	If people really want to succeed, they'll overcome any kind of discrimination.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??

	Statement	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
67.	Even when a person has been thoroughly taught to be mean and cruel, it is possible for this person to choose to be kind.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
68.	In the long run people get the respect they deserve in this world.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
69.	If you work hard and manage your money well, you'll never have to worry about being poor.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
70.	My first allegiance is to myself, rather than to anyone or anything else.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
71.	Becoming a success is a matter of hard work, luck has little or nothing to do with it.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
72.	Unemployment exists because some people don't want to work.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
73.	It is very important for every group member to have input in a decision that affects the group.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
74.	Human nature is changeable.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
75.	In my case getting what I want has little or nothing to do with luck.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??

		Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
76.	It is important to address people with their correct title (like "Doctor," "Officer," or "Professor").	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
77.	Most people who treat others cruelly could be persuaded to treat others kindly.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
78.	When people say they feel peaceful and happy through spiritual experiences, they are just making themselves feel good.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
79.	Through a lot of effort, people can actually improve their personalities.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
80.	In a classroom, lectures are better than discussions.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
81.	My country's needs come before my own.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
82.	There is nothing 'divine' to be concerned about.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
83.	Most people get jobs because they have the necessary abilities, not social connections.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
84.	Many times we might just as well decide what to do by flipping a coin.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??

	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
85. Involving too many people in a decision is a mistake. As the saying goes, "too many cooks spoil the broth."	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
86. The souls of the dead are concerned with us, the living.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
87. Teachers and students should work together to compose classroom rules.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
88. Important spiritual matters should be decided by the people at the top (like the leading nun, rabbi, minister, priest, imam, monk, or so forth), rather than discussed with the community.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
89. My neighborhood's needs come before my own.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
90. Spiritual experiences can reveal deeper aspects of reality to a person.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
91. People drop out of high school because of racism and prejudice in the school system.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
92. When we die, we die; there is no continued existence.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
93. It is best to have the same person make the important decisions in a group.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??

#	Statement								
94.	There is no 'spirit' that infuses nature; the mountains, deserts, and oceans are beautiful, but they are dead rock and sand and water.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
95.	There really is no such thing as "luck."	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
96.	There is no such thing as an 'ultimate' or spiritual reality beyond everyday life.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
97.	Anyone who really wants to work can get a job.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
98.	If I were a teacher, I would encourage lots of class discussion, even if I had to depart from my lesson plan.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
99.	Science will never be able to completely predict a person's behavior.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
100.	Even 'brainwashing' or torture cannot really change someone's basic character.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
101.	People really have "free will" in making choices for their lives.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
102.	There are no such things as good or evil spirits.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??

	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
103. A person's character cannot be altered, tampered with, or changed.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
104. I would rather spend time working on my own projects than serve on the local community board for free.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
105. The wrong kind of teacher can change a person's entire personality for the worse.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
106. At a job, the most important thing is setting myself up for promotion or for a better next job.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
107. I function independently of what my family says.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
108. My own goals are more important than the goals of my group, at work, school, or in my community.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
109. A basically kind, optimistic person will remain that way, even after surviving a hostage experience.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
110. Even a lot of bad friends cannot change a basically good child for long.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
111. There are good spirits who wish to help us, and evil spirits who wish to harm us.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??

		Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
112.	At school, it is better to spend more effort on individual projects rather than group projects.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
113.	Important spiritual questions should be decided by clergy and non-clergy together.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
114.	Many of the unhappy things in people's lives are partly due to bad luck.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
115.	It is important for twelve-year-old children to obey their parents' directions without dispute.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
116.	People can decide to live differently than any way they have ever been taught.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
117.	In a group, the leadership should make the important decisions.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
118.	In principle, if we knew everything about a person's history, we could predict perfectly what this person would do in any situation.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
119.	In a group, real authority is not shared, but flows from the top down.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
120.	The feeling that we have personal choice is actually just an illusion.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??

	Statement	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
121.	As an employee, the company's needs come before my own.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
122.	I would donate my recreational spending money for one month if the head of my religious congregation asked for a donation for necessary repairs to our house of worship.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
123.	Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
124.	Getting a good job depends mainly on being in the right place at the right time.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
125.	In a club, important decisions should be made by the members as a whole, not just by the officers.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
126.	Prejudice keeps many people from getting a job.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
127.	A person can be trained to be either an honest person or a dishonest one.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
128.	What happens to me is my own doing.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
129.	It is unfair for criminals to blame society, family, or friends for their own criminal behavior.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??

		Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
130.	People who say they are receiving messages from spirits are either lying, gullible, or mentally ill.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
131.	Within a religious group, it is better for someone to keep personal doubts quiet rather than risk upsetting other members of the group.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
132.	When poor people do drugs, it is because society has made them desperate.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
133.	A shift in company policies can make even a hard-working person unemployed and poor.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
134.	Whether someone does something good or evil is a matter of that person's upbringing, training, and the examples set for this person; it has nothing to do with "choice."	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
135.	A teacher should set rules in class rather than decide them along with the students.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
136.	People only believe in "free will" because they are taught to believe in it.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??

		Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
137.	At work, managers and workers should work together to make important business decisions.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
138.	We can receive messages from spirits.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
139.	There is a real spiritual realm that affects our life in this world.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
140.	No other group of people can keep you down if you are determined to succeed.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
141.	Even the worst personal tragedies will affect someone's usual level of optimism only temporarily.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
142.	When people say they feel joy through spiritual experiences, this is just the power of suggestion.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
143.	Some people possess actual spiritual powers like healing and being able to foresee the future.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
144.	No institution—no school, religion, or military training—really changes the kind of person that someone is at heart.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??

145. The important decisions in a family should be made by the parents alone, rather than deciding along with the children.

Disagree Strongly — Disagree Moderately — Disagree A Bit — Cannot Say — Agree A Bit — Agree Moderately — Agree Strongly — ??

146. Prayer is an important part of life.

Disagree Strongly — Disagree Moderately — Disagree A Bit — Cannot Say — Agree A Bit — Agree Moderately — Agree Strongly — ??

147. Really nice people are that way because they want to be so, not just because they were taught to be that way.

Disagree Strongly — Disagree Moderately — Disagree A Bit — Cannot Say — Agree A Bit — Agree Moderately — Agree Strongly — ??

148. There is only matter; there is no substance such as 'spirit.'

Disagree Strongly — Disagree Moderately — Disagree A Bit — Cannot Say — Agree A Bit — Agree Moderately — Agree Strongly — ??

149. When poor people do drugs, it's because they don't want to improve themselves.

Disagree Strongly — Disagree Moderately — Disagree A Bit — Cannot Say — Agree A Bit — Agree Moderately — Agree Strongly — ??

150. Some social groups can keep people down no matter how much the people want to succeed.

Disagree Strongly — Disagree Moderately — Disagree A Bit — Cannot Say — Agree A Bit — Agree Moderately — Agree Strongly — ??

Demographic Questionnaire, V.3

Please take a few moments to tell us a little bit more about yourself:

Sex (please circle one):   Female   Male

Age (Years):_____

Education

Please circle highest grade completed:

　1. Less than 8th grade

　2. 8th grade

　3. Some high school

　4. High School graduate

　5. Some college, no degree

　6. College graduate, Associate's degree

　7. College graduate, Bachelor's degree

　8. Some graduate school, no degree

　9. Master's degree

　10. Doctoral (PhD, PsyD, EdD, DSW), professional degree (MD,

JD, LLD, DD)

Languages

What language(s) is/are spoken in your home?

　　　_____

Occupation

What is your occupation? _____

Ethnic Identification

[Note: The following format is adapted from a format suggested by the Association of MultiEthnic Americans, 6/93; this is in turn an adaptation of the U.S. Census format.]

Race

Please circle one and only one of the following categories:

1. American Indian / Alaskan Native

2. Asian / Pacific Islander

3. Black

4. White

5. Multiracial   (to be indicated only by persons of more than one of the groups listed above)

For persons indicating "Multiracial": Please specify races of parents by circling as many of the following as apply:

American Indian / Alaskan Native

Asian / Pacific Islander

Black

White

Ethnicity

Please circle one and only one of the following categories:

1. Hispanic origin

2. Not of Hispanic origin; please specify

   _____

3. Multiethnic I (parent[s] of Hispanic and non-Hispanic origin)

4. Multiethnic II (parent[s] of more than one non-Hispanic origin)

National Origins

Country of *your* birth: _____

Country of *your mother's* birth: _____

Country of *your father's* birth: _____

Religious Group

Please circle (and fill in, if necessary) using the following categories.
(You may indicate more than one.)

A. Agnostic

B. Atheist

C. Baba

D. Baha'i

E. Buddhist:
Please specify group:

_____

F. Christian—
Roman Catholic

G. Christian—Protestant:
Please specify group:

_____

H. Christian—Orthodox
(e.g., Greek, Russian):
Please specify group:

_____

I. Christian—Latter-day Saint
/ Mormon

J. Christian—Other
Please specify group:

_____

K. Confucian

L. Ethical Culture

M. Hindu

N. Islamic:
Please specify group:

_____

O. Jain

P. Jewish-Orthodox

Q. Jewish-Conservative

R. Jewish-Reform

S. Jewish-Reconstructionist

T. Jewish-Secular

U. Krishna / ISKCON

V. New Age

W. None

X. Parsi / Zoroastrian

Y. Santeria

Z. Shinto

1. Sikh

2. Taoist

3. Unitarian Universalist

4. Wiccan / Craft / Pagan

5. Other: please specify:

_____

Comments: Please feel free to comment in any way about this questionnaire, using the reverse side if necessary.

APPENDIX D

ITEMS OF DEVELOPMENT VERSION 5 SORTED BY SCALE

Asterisked items were retained for scales in the Worldview Assessment Instrument (WAI), or for the Locus of Control scale that was factor-analyzed and correlated with scales of the WAI.

Agency Scale

Forward-Scored Items: Voluntarism Pole

14.*   Free will is part of human nature.

101.*   People really have "free will" in making choices for their lives.

99.   Science will never be able to completely predict a person's behavior.

147.   Really nice people are that way because they want to be so, not just because they were taught to be that way.

59   No matter how long you know someone, that person will still act in ways that surprise you at least once in a while.

55.*   It may take a lot of effort, but a person can decide to change even a very old habit.

129.   It is unfair for criminals to blame society, family, or friends for their own criminal behavior.

28.   Criminals chose to be criminals; it is not just the way they were raised or the friends they had.

116.*   People can decide to live differently than any way they have ever been taught.

67.   Even when a person has been thoroughly taught to be mean and cruel, it is possible for this person to choose to be kind.

20.   People decide to have good work habits; it is not just that they were taught to have them.

Reverse-Scored Items: Determinism Pole

43.*   The idea of "free will" is a joke: there is no such thing.

44.*   Human beings are like computers: controlled by their programming, and without real choice.

136.*   People only believe in "free will" because they are taught to believe in it.

120.*   The feeling that we have personal choice is actually just an illusion.

118.   In principle, if we knew everything about a person's history, we could predict perfectly what this person would do in any situation.

38.   Really nice people are that way because they were taught to be so.

26.   We are creatures of habit, and we cannot change really strong habits by our own efforts alone.

46.   Whether a person is honest or criminal is entirely because of what this person has learned from family and friends.

36.   People's behavior is based on reflexes and how they have been taught to behave.

134.   Whether someone does something good or evil is a matter of that person's upbringing, training, and the examples set for this person; it has nothing to do with "choice."

31.   People act the way they were taught; they don't "decide" their behavior any more than they pick the weather.

Mutability Scale

Forward-Scored Items: Changeable Pole

74.   Human nature is changeable.

79.   Through a lot of effort, people can actually improve their personalities.

45.   A tragic accident can make a basically happy person into a thoroughly bitter one ever afterwards.

60.   A school that was too strict could turn a basically cheerful person into someone who was chronically depressed.

32.   A great teacher could improve someone's behavior for life.

105.   The wrong kind of teacher can change a person's entire personality for the worse.

77.   Most people who treat others cruelly could be persuaded to treat others kindly.

127.   A person can be trained to be either an honest person or a dishonest one.

64.   A proper upbringing can change a child who has been very disobedient.

11.   Depending on how children are raised, they could grow up to be basically kind or basically cruel people.

27.   If a person uses enough of the wrong type of drugs, even the best of people might become permanently self-centered and nasty.

Reverse-Scored Items: Permanent Pole

103.*   A person's character cannot be altered, tampered with, or changed.

42.   No amount of personal effort can change someone's basic personality.

100.*   Even 'brainwashing' or torture cannot really change someone's basic character.

141.   Even the worst personal tragedies will affect someone's usual level of optimism only temporarily.

109*   A basically kind, optimistic person will remain that way, even after surviving a hostage experience.

144   No institution—no school, religion, or military training—really changes the kind of person that someone is at heart.

23.   Even the best of teachers cannot improve a student who is lazy.

53.   Criminals cannot be rehabilitated.

110.*   Even a lot of bad friends cannot change a basically good child for long.

34.   No matter how children are raised, it does not change their basic personalities.

37.   A lazy or delinquent child will likely become a lazy or criminal adult, no matter what family members or teachers or police do.

Relation to Authority Scale

Forward-Scored Items: Linear Pole

117.   In a group, the leadership should make the important decisions.

119.   In a group, real authority is not shared, but flows from the top down.

1.   At work, managers should make decisions for the workers to follow, rather than discussing them along with the staff.

85.   Involving too many people in a decision is a mistake. As the saying goes, "too many cooks spoil the broth."

80.   In a classroom, lectures are better than discussions.

135.*   A teacher should set rules in class rather than decide them along with the students.

145.*   The important decisions in a family should be made by the parents alone, rather than deciding along with the children.

115*   It is important for twelve-year-old children to obey their parents' directions without dispute.

88.   Important spiritual matters should be decided by the people at the top (like the leading nun, rabbi, minister, priest, imam, monk, or so forth), rather than discussed with the community.

93.   It is best to have the same person make the important decisions in a group.

76.   It is important to address people with their correct title (like "Doctor," "Officer," or "Professor").

Reverse-Scored Items: Lateral Pole

48.   Authority should be shared, rather than concentrated in the hands of a few leaders.

24.   In a group, decisions should be made by the group as a whole, not by the leaders alone.

137.*   At work, managers and workers should work together to make important business decisions.

73.   It is very important for every group member to have input in a decision that affects the group.

98.   If I were a teacher, I would encourage lots of class discussion, even if I had to depart from my lesson plan.

87.*   Teachers and students should work together to compose classroom rules.

61.*   At home, important decisions should be made by the parents and children together.

18.   If I were a parent of young teenagers, I would usually consult my children about decisions that affect them.

113.   Important spiritual questions should be decided by clergy and non-clergy together.

125.   In a club, important decisions should be made by the members as a whole, not just by the officers.

57.   If I were a medical doctor, I would set out options for a patient to consider, rather than dictate instructions for a patient to follow.

Relation to Group Scale

Forward-Scored Items: Collectivist Pole

81.*   My country's needs come before my own.

89.*   My neighborhood's needs come before my own.

2.*   My family's needs come before my own.

30.   I vote for what is best for the community as a whole, rather than what is best for me personally.

131.   Within a religious group, it is better for someone to keep personal doubts quiet rather than risk upsetting other members of the group.

50.*   In a company, it is better to contribute to the overall performance of one's department rather than to just further one's career.

121.* As an employee, the company's needs come before my own.

65.   Employees should change their vacation plans if there is an emergency on the job.

39.   I would offer my life in exchange for the lives of ten people chosen at random from my neighborhood (not relatives).

25.   If I were out with a group of friends, I might do what everybody else wanted to do even if I didn't care much for the idea.

3.   In team sports, it is better to contribute to the overall performance of the team rather than to be an outstanding individual player.

122.*   I would donate my recreational spending money for one month if the head of my religious congregation asked for a donation for necessary repairs to our house of worship.

Reverse-Scored Items: Individualist Pole

108.*   My own goals are more important than the goals of my group, at work, school, or in my community.

70.*   My first allegiance is to myself, rather than to anyone or anything else.

62.*   I value my own freedom above even my family relationships.

107.   I function independently of what my family says.

52.   My own spiritual quest is more important than fulfilling the expectations of my religious group.

15.*   What I think I should do is more important to me than what the leaders of my spiritual community think I should do.

106.   At a job, the most important thing is setting myself up for promotion or for a better next job.

47.   As an employee, I follow my own priorities in my work, even when these are different from the company's priorities.

54.*   Other people can take care of themselves; I've got to look out for Number One.

112.   At school, it is better to spend more effort on individual projects rather than group projects.

104.*   I would rather spend time working on my own projects than serve on the local community board for free.

21.   If I don't take care of myself, no one else will.

Locus of Responsibility Scale

Forward-Scored Items: External Pole

150.*   Some social groups can keep people down no matter how much the people want to succeed.

126.*   Prejudice keeps many people from getting a job.

35.   Poverty exists because some social classes are selfish.

4.*   Poor people can justly blame society for their position in life.

29.   Homes break up because of poverty and unemployment.

132.*	When poor people do drugs, it is because society has made them desperate.
133.*	A shift in company policies can make even a hard-working person unemployed and poor.
91.*	People drop out of high school because of racism and prejudice in the school system.
51.	When people enter the Armed Forces, that's because it's often the only job they can find.
10.	The 'insiders' run the government for their own benefit, and there is little that law-abiding citizens can do about it.
49.*	Poor people can justly blame rich people for their position in life.

Reverse-Scored Items: Internal Pole

140.*	No other group of people can keep you down if you are determined to succeed.
16.	No other group of people can help you up the ladder of success if you lack skills and determination.
66.*	If people really want to succeed, they'll overcome any kind of discrimination.
72.*	Unemployment exists because some people don't want to work.
149.*	When poor people do drugs, it's because they don't want to improve themselves.
83	Most people get jobs because they have the necessary abilities, not social connections.

97.*	Anyone who really wants to work can get a job.
69.*	If you work hard and manage your money well, you'll never have to worry about being poor.
56.*	Anyone who really values education will be sure to graduate from high school, at least.
7.	When people enter the Armed Forces, that's because they want to serve the country.
22.	For the most part, the government expresses the will of the people.

Metaphysics Scale

Forward-Scored Items: Spiritualist Pole

139.*	There is a real spiritual realm that affects our life in this world.
40.	The spiritual side of life should affect how we live our everyday lives.
58.*	Nothing is really 'dead': spirit infuses everything and everyone.
12.	Spiritual experiences can truly put a person in touch with the divine.
90.	Spiritual experiences can reveal deeper aspects of reality to a person.
8.*	People can actually receive revelation or visions from the spiritual realm.
146.	Prayer is an important part of life.

143.* Some people possess actual spiritual powers like healing and being able to foresee the future.

138.* We can receive messages from spirits.

111. There are good spirits who wish to help us, and evil spirits who wish to harm us.

86. The souls of the dead are concerned with us, the living.

Reverse-Scored Items: Materialist Pole

148.* There is only matter; there is no substance such as 'spirit.'

94. There is no 'spirit' that infuses nature; the mountains, deserts, and oceans are beautiful, but they are dead rock and sand and water.

82. There is nothing 'divine' to be concerned about.

96.* There is no such thing as an 'ultimate' or spiritual reality beyond everyday life.

78. When people say they feel peaceful and happy through spiritual experiences, they are just making themselves feel good.

142.* When people say they feel joy through spiritual experiences, this is just the power of suggestion.

41.* Prayer may make someone feel good, but otherwise it is pointless.

5. No one possesses 'spiritual powers.'

130. People who say they are receiving messages from spirits are either lying, gullible, or mentally ill.

102. There are no such things as good or evil spirits.

92.*   When we die, we die; there is no continued existence.

Locus of Control Scale

Forward-Scored Items: External Pole

114.*   Many of the unhappy things in people's lives are partly due to bad luck.

123.   Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries.

124.   Getting a good job depends mainly on being in the right place at the right time.

9.   It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.

84.   Many times we might just as well decide what to do by flipping a coin.

19.*   Who gets to be the boss often depends on who was lucky enough to be in the right place first.

17.   Many times I feel that I have little influence over the things that happen to me.

33.   Sometimes I feel that I don't have enough control over the direction my life is taking.

Reverse-Scored Items: Internal Pole

63.   One of the major reasons why we have wars is because people don't take enough interest in politics.

68.   In the long run people get the respect they deserve in this world.

6.   In the case of the well prepared student there is rarely if ever such a thing as an unfair test.

71.*   Becoming a success is a matter of hard work, luck has little or nothing to do with it.

13.   When I make plans, I am almost certain that I can make them work.

75.*   In my case getting what I want has little or nothing to do with luck.

95.*   There really is no such thing as "luck."

128   What happens to me is my own doing.

APPENDIX E

ORAL INVITATION TO PARTICIPATE

Today we are asking you to participate in a research study about what people think about life and the world. The way we will get this information is to ask you to fill out questionnaires which we hope you will find interesting and which should take thirty minutes or less to complete today.

[Note: the following two sentences were spoken if the questionnaire was to be filled out immediately in a group:] If you have any questions while you are filling out a questionnaire, feel free to ask. If you would like time to discuss anything related to a questionnaire and your response to it, a researcher will be available to speak with you after everyone has finished. If, after you start the questionnaire, you feel that you would rather not be part of the study, you do not have to finish the questionnaires. However, if you do wish to be part of the study, we will need completed questionnaires from you.

This is an anonymous survey, so please do not put your name on any materials. No one will know whether or not you choose to participate; you may hand in blank questionnaires if you wish. Whether or not you choose to participate, you may receive the general results of the research by leaving your name and address with me before you leave today.

APPENDIX F

ITEM-LEVEL FACTOR ANALYSIS OF WAI AND
LOCUS OF CONTROL SCALES

Table 22 below shows the full factor loadings resulting from an item-score-level factor analysis performed on participants' responses during Study 5. The 291 participants submitting valid protocols in Study 5 responded to 150 items on Development Version 5. Subsequently, almost two-thirds of the items of Development Version 5 were deleted because of considerations regarding internal consistency and factor structure. The 59 remaining items included 54 WAI items for the six scales developed during the present study, and 5 items assessing locus of control, adapted from the I-E Scale (Rotter, 1966).

When participants' responses to these 59 items were submitted to principal axis factor analysis using Varimax rotation with Kaiser normalization, the most coherent factor structure involved an 8-factor solution where the 8 eigenvalues accounted for 39% of variance. The Locus of Control scale and 5 of the 6 WAI scales were each represented predominantly on one factor apiece. The items of the Locus of Responsibility scale were split between two factors, one where the items of the Internal pole loaded most heavily, and one were the most significant loadings were from the items of the External pole. When the Locus of Control items were removed, the factor structure collapsed into the 6-factor solution described in Table 13.

Table 22

Complete Loadings of Item-Level Factor Analysis of WAI and Locus of Control Scales (N = 291)

	Item Loading on Factor							
Item	1	2	3	4	5	6	7	8

Factor 1: Metaphysics Scale (Eigenvalue = 5.359; 10 items)

139. There is a real spiritual realm that affects our life in this world.	.82	.07	.12	.13	-.01	.07	.04	-.03
58. Nothing is really 'dead': spirit infuses everything and everyone.	.62	-.11	-.01	.01	-.02	.10	.04	-.01
8. People can actually receive revelation or visions from the spiritual realm.	.71	.05	.05	.03	-.03	-.03	.09	-.05
143. Some people possess actual spiritual powers like healing and being able to foresee the future.	.61	.03	-.05	-.10	-.03	.03	.18	-.10
138. We can receive messages from spirits.	.75	.06	.06	.06	-.04	-.09	.15	-.01
148.* There is only matter; there is no substance such as 'spirit.'	.71	.22	.18	.02	-.05	.05	-.06	.00

(table continues)

Table 22. *(continued)*

| Item | Item Loading on Factor | | | | | | | |
	1	2	3	4	5	6	7	8
96.* There is no such thing as an 'ultimate' or spiritual reality beyond everyday life.	.78	.00	.20	.07	-.04	.03	-.04	.09
142.* When people say they feel joy through spiritual experiences, this is just the power of suggestion.	.67	.17	.17	.13	-.03	-.02	-.13	.12
41.* Prayer may make someone feel good, but otherwise it is pointless.	.64	-.12	.15	.24	.10	.04	-.09	.05
92.* When we die, we die; there is no continued existence.	.77	-.09	.15	.08	.02	-.03	-.06	.06

Factor 2: Locus of Responsibility Scale I (Eigenvalue = 3.615; 10 items)

Factor 7: Locus of Responsibility Scale II (Eigenvalue = 1.861; 4 items)

| Item | | | | | | | | |
	1	2	3	4	5	6	7	8
150. Some social groups can keep people down no matter how much the people want to succeed.	.14	.38	-.10	-.07	-.04	.06	.22	-.08
126. Prejudice keeps many people from getting a job.	.04	.43	-.02	-.10	-.18	.03	.23	-.08
4. Poor people can justly blame society for their position in life.	.08	.31	-.15	.10	-.01	.06	.41	.04

(table continues)

Table 22. *(continued)*

Item	1	2	3	4	5	6	7	8
				Item Loading on Factor				
132. When poor people do drugs, it is because society has made them desperate.	-.10	.20	-.13	.01	.13	.13	.59	-.05
133. A shift in company policies can make even a hard-working person unemployed and poor.	.05	.40	.09	-.12	.01	.14	.03	-.01
91. People drop out of high school because of racism and prejudice in the school system.	.10	.37	-.01	.04	-.13	.04	.37	.02
49. Poor people can justly blame rich people for their position in life.	.12	.13	-.19	.03	-.03	.11	.54	.01
140.* No other group of people can keep you down if you are determined to succeed.	-.05	.49	-.06	.08	-.04	.09	.06	.22
66.* If people really want to succeed, they'll overcome any kind of discrimination.	-.02	.61	-.10	.03	-.10	.04	.09	.16
72.* Unemployment exists because some people don't want to work.[a]	-.05	.48	.14	.04	.04	.07	.05	-.10

(table continues)

Table 22. *(continued)*

	Item Loading on Factor							
Item	1	2	3	4	5	6	7	8
149.* When poor people do drugs, it's because they don't want to improve themselves.	.12	.43	.18	.04	-.08	.02	-.07	.00
97.* Anyone who really wants to work can get a job.	.00	.65	-.03	-.05	-.03	.04	.19	.06
69.* If you work hard and manage your money well, you'll never have to worry about being poor.	-.01	.67	.02	.00	.00	.02	-.05	.18
56.* Anyone who really values education will be sure to graduate from high school, at least.	-.01	.42	-.07	.03	-.16	.12	-.10	.04

Factor 3: Agency Scale (Eigenvalue = 5.835; 8 items)

14. Free will is part of human nature.	.12	-.11	.64	-.03	.00	.01	.06	-.07
101. People really have "free will" in making choices for their lives.	.12	-.16	.59	.07	-.04	-.06	.02	-.04
55. It may take a lot of effort, but a person can decide to change even a very old habit.	.14	-.03	.41	.01	-.15	-.11	-.13	.16

(table continues)

Table 22. *(continued)*

Item	Item Loading on Factor							
	1	2	3	4	5	6	7	8
116. People can decide to live differently than any way they have ever been taught.	.09	.11	.32	-.03	.01	.06	-.13	.02
43.* The idea of "free will" is a joke: there is no such thing.	.08	.07	.82	.02	-.06	-.01	.03	.00
44.* Human beings are like computers: controlled by their programming, and without real choice.	.01	.11	.59	.08	-.04	.12	-.05	.04
136.* People only believe in "free will" because they are taught to believe in it.	.05	-.08	.56	.13	-.16	-.11	-.20	-.11
120.* The feeling that we have personal choice is actually just an illusion.	.09	.03	.67	.08	-.01	-.01	-.17	.20

Factor 4: Relation to Group Scale (Eigenvalue = 2.980; 12 items)

Item	1	2	3	4	5	6	7	8
81. My country's needs come before my own.	.02	-.14	.00	.46	.05	-.14	.33	.04
89. My neighborhood's needs come before my own.	.06	-.14	-.06	.60	-.07	-.01	.29	-.04
2. My family's needs come before my own.	.00	-.08	.02	.38	.08	-.08	-.12	-.07

(table continues)

Table 22. *(continued)*

Item	Item Loading on Factor							
	1	2	3	4	5	6	7	8
50. In a company, it is better to contribute to the overall performance of one's department rather than to just further one's career.	-.04	-.01	.04	.42	-.05	-.10	.04	-.15
121. As an employee, the company's needs come before my own.	.06	-.11	-.04	.36	.08	-.07	.28	.05
122. I would donate my recreational spending money for one month if the head of my religious congregation asked for a donation for necessary repairs to our house of worship.	.24	-.05	-.01	.51	-.03	-.07	.16	-.03
108.* My own goals are more important than the goals of my group, at work, school, or in my community.	.01	.04	.10	.56	-.19	.05	.03	.05
70.* My first allegiance is to myself, rather than to anyone or anything else.	.04	.19	.09	.59	.00	.06	-.17	-.04
62.* I value my own freedom above even my family relationships.	.05	.11	-.05	.43	.07	.13	-.26	-.02

(table continues)

Table 22. *(continued)*

Item	Item Loading on Factor							
	1	2	3	4	5	6	7	8
15.* What I think I should do is more important to me than what the leaders of my spiritual community think I should do.	.12	-.17	-.18	.28	.04	.01	.10	.08
54.* Other people can take care of themselves; I've got to look out for Number One.	.05	.12	.14	.48	-.22	.11	-.09	-.02
104.* I would rather spend time working on my own projects than serve on the local community board for free.	.13	-.08	.11	.51	-.17	-.07	.00	.10

Factor 5: Relation to Authority Scale (Eigenvalue = 2.151; 6 items)

| 135. A teacher should set rules in class rather than decide them along with the students. | -.07 | -.25 | -.01 | -.07 | .62 | .03 | -.04 | .03 |
| 145. The important decisions in a family should be made by the parents alone, rather than deciding along with the children. | .00 | -.15 | -.14 | .02 | .57 | -.02 | .16 | -.09 |

(table continues)

Table 22. *(continued)*

	Item Loading on Factor							
Item	1	2	3	4	5	6	7	8
115. It is important for twelve-year-old children to obey their parents' directions without dispute.	.04	-.32	.04	.02	.38	.10	.08	-.08
137.* At work, managers and workers should work together to make important business decisions.	-.03	-.05	-.09	-.05	.49	-.04	-.04	-.04
87.* Teachers and students should work together to compose classroom rules.	-.03	-.09	.04	-.11	.68	.03	-.12	.09
61.* At home, important decisions should be made by the parents and children together.	.01	.12	-.12	-.07	.46	-.03	.03	.02

Factor 6: Locus of Control Scale (Eigenvalue = 1.931; 5 items)

114. Many of the unhappy things in people's lives are partly due to bad luck.[b]	.03	.02	-.12	-.04	.02	.56	.13	-.10
19. Who gets to be the boss often depends on who was lucky enough to be in the right place first.[b]	-.03	.10	-.14	-.10	.08	.40	.19	-.18
71.* Becoming a success is a matter of hard work, luck has little or nothing to do with it.[b]	.00	.32	.10	.04	-.03	.65	.00	-.08

(table continues)

Table 22. *(continued)*

Item	Item Loading on Factor							
	1	2	3	4	5	6	7	8
75.* In my case getting what I want has little or nothing to do with luck.[b]	-.02	.19	-.05	.00	-.01	<u>.63</u>	.03	.08
95.* There really is no such thing as "luck."[b]	.14	.00	.23	-.10	-.07	<u>.60</u>	-.09	.05

Factor 8: Mutability Scale (Eigenvalue = 1.675; 4 items)

Item	1	2	3	4	5	6	7	8
103.* A person's character cannot be altered, tampered with, or changed.	.13	.13	.22	-.06	-.13	-.02	.04	<u>.38</u>
100.* Even 'brainwashing' or torture cannot really change someone's basic character.	-.03	.07	.06	-.07	-.07	.01	.02	<u>.58</u>
109.* A basically kind, optimistic person will remain that way, even after surviving a hostage experience.	-.01	.13	-.11	-.02	-.01	-.10	-.01	<u>.58</u>
110.* Even a lot of bad friends cannot change a basically good child for long.	-.01	.08	.02	.05	.12	-.03	-.03	<u>.68</u>

Note. Scales are listed in descending order of eigenvalue, except for Factor 7. Item numbers refer to item position within Development Version 5. The highest loading for each item is underlined.
*Reverse-scored.
[a]Adapted from Latting and Zundel (1986).
[b]From Rotter (1966).

APPENDIX G

THE WORLDVIEW ASSESSMENT INSTRUMENT

Following this page is a protocol containing the Worldview Assessment Instrument (WAI), which contains 54 items. (The items of the WAI are also presented, sorted by scale, in Table 10.) A Scoring Guide to the WAI is found in Appendix H.

WAI Scales

Instructions

This is a survey of attitudes. There are no right or wrong answers. The best answer is what you feel is true for you.

Please respond to *each* of the items by CIRCLING *one and only one* of the following:

| Disagree Strongly | Disagree Moderately | Disagree A Bit | Cannot Say | Agree A Bit | Agree Moderately | Agree Strongly | ?? |

Mark *"??"* if you *do not understand* what the item means.

Mark **"Cannot Say"** if you cannot decide whether you agree or disagree with the item. Please try to use the "Cannot Say" response as little as possible.

Please respond as quickly as possible to each item. Don't think a lot about each item — what first comes to mind is how you should respond. Please work alone on this survey.

01.	Some social groups can keep people down no matter how much the people want to succeed.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
02.	My country's needs come before my own.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
03.	There is a real spiritual realm that affects our life in this world.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
04.	If you work hard and manage your money well, you'll never have to worry about being poor.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
05.	Free will is part of human nature.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
06.	My neighborhood's needs come before my own.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
07.	A teacher should set rules in class rather than decide them along with the students.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
08.	Prejudice keeps many people from getting a job.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
09.	The feeling that we have personal choice is actually just an illusion.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??

	Statement	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
10.	Other people must take care of themselves; I've got to look out for Number One.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
11.	A person's character cannot be altered, tampered with, or changed.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
12.	When we die, we die; there is no continued existence.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
13.	People only believe in "free will" because they are taught to believe in it.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
14.	My own goals are more important than the goals of my group, at work, school, or in my community.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
15.	At home, important decisions should be made by the parents and children together.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
16.	There is only matter; there is no substance such as 'spirit.'	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
17.	If people really want to succeed, they'll overcome any kind of discrimination.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
18.	My family's needs come before my own.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
19.	Even a lot of bad friends cannot change a basically good child for long.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??

		Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
20.	Nothing is really 'dead': spirit infuses everything and everyone.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
21.	Poor people can justly blame society for their position in life.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
22.	People really have "free will" in making choices for their lives.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
23.	At work, managers and workers should work together to make important business decisions.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
24.	People can actually receive revelation or visions from the spiritual realm.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
25.	When poor people do drugs, it is because society has made them desperate.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
26.	In a company, it is better to contribute to the overall performance of one's department rather than to just further one's career.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
27.	Poor people can justly blame rich people for their position in life.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
28.	Prayer may make someone feel good, but otherwise it is pointless.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??

		Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
29.	Unemployment exists because some people don't want to work.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
30.	It may take a lot of effort, but a person can decide to change even a very old habit.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
31.	What I think I should do is more important to me than what the leaders of my spiritual community think I should do.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
32.	Even 'brainwashing' or torture cannot really change someone's basic character.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
33.	When poor people do drugs, it's because they don't want to improve themselves.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
34.	Human beings are like computers: controlled by their programming, and without real choice.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
35.	My first allegiance is to myself, rather than to anyone or anything else.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
36.	It is important for twelve-year-old children to obey their parents' directions without dispute.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??

#	Statement								
37.	There is no such thing as an 'ultimate' or spiritual reality beyond everyday life.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
38.	The idea of "free will" is a joke: there is no such thing.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
39.	As an employee, the company's needs come before my own.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
40.	The important decisions in a family should be made by the parents alone, rather than deciding along with the children.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
41.	Some people possess actual spiritual powers like healing and being able to foresee the future.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
42.	People drop out of high school because of racism and prejudice in the school system.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
43.	I would donate my recreational spending money for one month if the head of my religious congregation asked for a donation for necessary repairs to our house of worship.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
44.	A basically kind, optimistic person will remain that way, even after surviving a hostage experience.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??

		Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
45.	When people say they feel joy through spiritual experiences, this is just the power of suggestion.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
46.	A shift in company policies can make even a hard-working person unemployed and poor.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
47.	Teachers and students should work together to compose classroom rules.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
48.	No other group of people can keep you down if you are determined to succeed.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
49.	We can receive messages from spirits.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
50.	Anyone who really wants to work can get a job.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
51.	People can decide to live differently than any way they have ever been taught.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
52.	I value my own freedom above even my family relationships.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
53.	Anyone who really values education will be sure to graduate from high school, at least.	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??

	Disagree Strongly	Disagree Moderately	Disagree A Bit	Cannot Say	Agree A Bit	Agree Moderately	Agree Strongly	??
54. I would rather spend time working on my own projects than serve on the local community board for free.								

APPENDIX H

SCORING KEY, SCORING SUMMARY, AND INTERPRETIVE GUIDE FOR THE WORLDVIEW ASSESSMENT INSTRUMENT

The WAI can be scored using the key given in Table 23, which forward- and reverse-scores the appropriate items. Scores can be recorded on the Scoring Summary, given in Table 24, and interpreted according to the guidelines given in Table 25 (which reproduces some of the guidelines given in Table 11).

Table 23

Scoring Key for the Worldview Assessment Instrument

Item No.	Adds to Score of Scale	Number of Points Added						
		DS	DM	DB	CS	AB	AM	AS
1.	Locus of Responsibility	1	2	3	4	5	6	7
2.	Relation to Group	1	2	3	4	5	6	7
3.	Metaphysics	1	2	3	4	5	6	7
4.	Locus of Responsibility	7	6	5	4	3	2	1
5.	Agency	1	2	3	4	5	6	7
6.	Relation to Group	1	2	3	4	5	6	7
7.	Relation to Authority	1	2	3	4	5	6	7
8.	Locus of Responsibility	1	2	3	4	5	6	7

(table continues)

Table 23. *(continued)*

Item No.	Adds to Score of Scale	Number of Points Added						
		DS	DM	DB	CS	AB	AM	AS
9.	Agency	7	6	5	4	3	2	1
10.	Relation to Group	7	6	5	4	3	2	1
11.	Mutability	7	6	5	4	3	2	1
12.	Metaphysics	7	6	5	4	3	2	1
13.	Agency	7	6	5	4	3	2	1
14.	Relation to Group	7	6	5	4	3	2	1
15.	Relation to Authority	7	6	5	4	3	2	1
16.	Metaphysics	7	6	5	4	3	2	1
17.	Locus of Responsibility	7	6	5	4	3	2	1
18.	Relation to Group	1	2	3	4	5	6	7
19.	Mutability	7	6	5	4	3	2	1
20.	Metaphysics	1	2	3	4	5	6	7
21.	Locus of Responsibility	1	2	3	4	5	6	7
22.	Agency	1	2	3	4	5	6	7
23.	Relation to Authority	7	6	5	4	3	2	1
24.	Metaphysics	1	2	3	4	5	6	7
25.	Locus of Responsibility	1	2	3	4	5	6	7
26.	Relation to Group	1	2	3	4	5	6	7
27.	Locus of Responsibility	1	2	3	4	5	6	7

(table continues)

Table 23. *(continued)*

Item		Number of Points Added						
No.	Adds to Score of Scale	DS	DM	DB	CS	A B	A M	A S
28.	Metaphysics	7	6	5	4	3	2	1
29.	Locus of Responsibility	7	6	5	4	3	2	1
30.	Agency	1	2	3	4	5	6	7
31.	Relation to Group	7	6	5	4	3	2	1
32.	Mutability	7	6	5	4	3	2	1
33.	Locus of Responsibility	7	6	5	4	3	2	1
34.	Agency	7	6	5	4	3	2	1
35.	Relation to Group	7	6	5	4	3	2	1
36.	Relation to Authority	1	2	3	4	5	6	7
37.	Metaphysics	7	6	5	4	3	2	1
38.	Agency	7	6	5	4	3	2	1
39.	Relation to Group	1	2	3	4	5	6	7
40.	Relation to Authority	1	2	3	4	5	6	7
41.	Metaphysics	1	2	3	4	5	6	7
42.	Locus of Responsibility	1	2	3	4	5	6	7
43.	Relation to Group	1	2	3	4	5	6	7
44.	Mutability	7	6	5	4	3	2	1
45.	Metaphysics	7	6	5	4	3	2	1
46.	Locus of Responsibility	1	2	3	4	5	6	7

(table continues)

Table 23. *(continued)*

Item No.	Adds to Score of Scale	Number of Points Added						
		DS	DM	DB	CS	AB	AM	AS
47.	Relation to Authority	7	6	5	4	3	2	1
48.	Locus of Responsibility	7	6	5	4	3	2	1
49.	Metaphysics	1	2	3	4	5	6	7
50.	Locus of Responsibility	7	6	5	4	3	2	1
51.	Agency	1	2	3	4	5	6	7
52.	Relation to Group	7	6	5	4	3	2	1
53.	Locus of Responsibility	7	6	5	4	3	2	1
54.	Relation to Group	7	6	5	4	3	2	1

Note. Blank responses or responses of "??" should be scored "4."

Protocols with more than 5 blank or "??" responses should be discarded

or interpreted very cautiously. DS = Disagree Strongly; DM = Disagree

Moderately; DB = Disagree a Bit; CS = Cannot Say; AB = Agree a Bit;

AM = Agree Moderately; AS = Agree Strongly.

Table 24

Scoring Summary for the Worldview Assessment Instrument

Scale	Item No.	Score	Scale	Item No.	Score
Agency	5.	_____	Locus of Responsibility	1.	_____
	9.	_____		4.	_____
	13.	_____		8.	_____
	22.	_____		17.	_____
	30.	_____		21.	_____
	34.	_____		25.	_____
	38.	_____		27.	_____
	51.	_____		29.	_____
	Tot.:	_____		33.	_____
				42.	_____
Mutability	11.	_____		46.	_____
	19.	_____		48.	_____
	32.	_____		50.	_____
	44.	_____		53.	_____
	Tot.:	_____		Tot.:	_____

Table 24. *(continued)*

Scale	Item No.	Score	Scale	Item No.	Score
Relation to Group	2.	_____	Relation to Authority	7.	_____
	6.	_____		15.	_____
	10.	_____		23.	_____
	14.	_____		36.	_____
	18.	_____		40.	_____
	26.	_____		47.	_____
	31.	_____		Tot.:	_____
	35.	_____			
	39.	_____	Metaphysics	3.	_____
	43.	_____		12.	_____
	52.	_____		16.	_____
	54.	_____		20.	_____
	Tot.:	_____		24.	_____
				28.	_____
				37.	_____
				41.	_____
				45.	_____
# Blanks	_____			49.	_____
# "??"	_____			Tot.:	_____

Table 25

Interpretive Guide to Scale Scores for the Worldview Assessment
Instrument

| Scale | Pole Reflected by Score | |
	Higher Score	Lower Score
Metaphysics	over 40: Spiritualist	under 40: Materialist
Responsibility	over 56: External	under 56: Internal
Agency	over 32: Voluntarist	under 32: Determinist
Group	over 48: Collectivist	under 48: Individualist
Authority	over 24: Linear	under 24: Lateral
Mutability	over 16: Changeable	under 16: Permanent

APPENDIX I

ADDITIONAL SUGGESTIONS FOR USE OF THE WORLDVIEW
ASSESSMENT INSTRUMENT IN PSYCHOLOGICAL RESEARCH

This appendix makes recommendations for the use of the WAI
in research in areas of psychology other than process and outcome in
generic and multicultural counseling and psychotherapy.
(Recommendations for research in those areas are made in Chapter V.)
Specifically, areas of psychology for which research suggestions are
made include: training in counseling and psychotherapy; health
psychology; educational psychology; cross-cultural psychology;
developmental, personality, and social psychology; abnormal
psychology and psychopathology; psychology of religion and
transpersonal psychology; peace psychology; and, metapsychology and
the search for unifying perspectives in psychology. The WAI would be
useful to address all of the research questions noted below in each of
these areas.

Training in Counseling and Psychotherapy

One of the "breakthrough problems" in counseling and
psychotherapy involves training, that is, "how can education and
training programs enable psychotherapists [and counselors] to acquire
high-grade competence and skill in ... psychotherapy [and counseling]?"
(Mahrer, 1997, p. 84). In light of all that has been discussed concerning
the importance of world view to this field, it is reasonable to think that

one key to the acquisition of high-grade competence and skill would involve training professionals to better recognize world view dimensions as they become manifest in clinical work. The WAI can be useful in this endeavor.

As mentioned earlier, the ethical standards of the American Psychological Association, and standards recommended by a committee of the American Counseling Association, hold practitioners responsible for understanding their own and their clients' world views. Perhaps in response to these calls to ethical practice, nearly 40% of a sample of predoctoral psychology internship programs located within university counseling centers stated that they presented material on values and world views to their interns (Murphy, Wright, & Bellamy, 1995). A desire to address multicultural issues at predoctoral internship training sites of all types was also evident in another survey (Constantine & Gloria, 1999). Almost 90% of doctoral programs in counseling psychology surveyed in 1995 required at least one multicultural course (Ponterotto, 1996). Several authorities cite as imperative the need for counselors and therapists in training to learn about their own cultural baggage, and their own and their clients' world views (McCrae & Johnson, 1991; Midgette & Meggert, 1991). Extensive suggestions have been provided regarding the development of multicultural counseling competencies (D. W. Sue et al., 1998). All of this indicates that the raising of multicultural awareness among counselors and psychotherapists in training is recognized as an important issue.

The WAI could be used to further the ends of raising consciousness of world view issues in training settings, either at academic training programs, at predoctoral internship centers, or at externship sites. A good way to use the WAI in this respect would be to pair it with a multicultural sensitivity training exercise, such as those developed by Koltko-Rivera (1999). The ideal sequence would be: administration of the WAI, multicultural sensitivity training exercise, discussion of the WAI and world view dimensions.

It has been noted that "the focus of mental health research issues has included ... competency in skills for working with specific ethnic populations" (American Psychological Association, 1993, p. 45). It would be appropriate to focus multicultural (and generic) counselor/therapist training on competency in skills for working with clients holding specific world views, as well. The WAI can be used in a clinical assessment battery to assess client world views; this will require incorporation of the WAI into clinical assessment training.

It has been suggested that the evaluation of multicultural counselor training programs should include the assessment of "changes in worldview ... of trainees from pre- to posttraining" (Ridley, Mendoza, & Kanitz, 1994, p. 282). Although the WAI could certainly be used to accomplish this objective, the present author is of the opinion that this effort would be misguided as an aspect of program evaluation (although it would be of interest in terms of investigating the effect of the training process). At the current state of research and theory, psychology as a discipline does not know whether some counselor/therapist world views are associated with superior

counseling and therapy, at least not in terms of the worldview dimensions assessed by the WAI or mentioned in any of the world view models reviewed in Chapter II. Assessment of trainee world views as an aspect of program evaluation smacks of an attempt to enforce a sort of "world view party line" on counselor education, which would be quite ironic, given the multicultural counseling movement's dedication to tolerance of different points of view.

A more positive direction in which to use world view assessment involves training in the contextuality paradigm of therapy. The contextuality paradigm in family therapy sees the individual imbedded within the family, and the family imbedded within one or more cultures (Szapocznik & Kurtines, 1993). Training in the use of the WAI in assessment and therapy can sensitize family therapists-in-training to conceptualize this dual imbeddedness in world view terms. This sort of conceptualization, in turn, will allow family therapists to use a language to describe assumptions about life, a language that is portable across work with members of different ethnic groups. This etic approach can be combined with more emic approaches to multicultural family work (McGoldrick, Giordano, & Pearce, 1996), to give family therapists-in-training the advantages of nomothetic conceptualizations (parsimony, comparative perspectives) without sacrificing the rich detail available through idiographic approaches.

Notwithstanding all that has been said regarding the value of training in multicultural counseling and psychotherapy, it is worthwhile to note that world view issues are important to raise in training that is not specifically oriented to multicultural concerns.

There is an important sense in which *all* counseling encounters are cross-cultural (Ho, 1995). Sciarra has put it particularly eloquently:

> Yes! All counseling is multicultural! All counseling can and should pass through the lens of multiculturalism. All counselors should be informed by the following heuristic frameworks: How is this client culturally both similar and dissimilar to myself? What are the implications of this for the counseling process? (Sciarra, 1999, p. 186)

In light of these considerations, it would be appropriate to use the WAI in training settings as an heuristic instrument to help students to increase awareness of their own and their clients' world view positions.

Health Psychology

As some authors have put it, "how we 'see the world' appears to powerfully impact our health and wellness" (Adams, Bezner, & Steinhardt, 1997, p. 208). Two ways in which this may be the case involve, respectively, disease prevention and disease recovery. Each of these areas is described below.

(It should be noted that there are other areas of health psychology where world view theory and assessment may be highly relevant. One such area is resistance and immune functioning [Kiecolt-Glaser & Glaser, 1988]. Two others are the stress-illness connection, and the psychosocial impact and management of medical illness [T. W. Smith & Ruiz, 1999].)

World View and Disease Prevention Behaviors

The discipline of psychology has come to recognize the importance of research into the psychological factors surrounding disease prevention (Coie et al., 1993). An urgent need has been documented for psychological interventions to prevent HIV infection (Kelly, Murphy, Sikkema, & Kalichman, 1993). Psychological facilitation of smoking cessation would help to prevent death from "the leading cause of preventable morbidity and mortality in the United States" (Wetter et al., 1998, p. 657). Attitudinal components of patients' acceptance or rejection of recommendations to prevent cancer are under investigation by psychologists (K. Hurley, personal communication, February 16, 1999).

Among all possible psychological factors, there is a great deal of evidence suggesting that cultural values in particular affect health. Two extreme examples involve suicide and AIDS. Several studies have noted that cultural values determine socially acceptable reasons for and methods of suicide (which may differ by gender), and researchers thus have called for a great deal of cultural awareness and sensitivity in devising suicide prevention programs (Canetto & Silverman, 1998). In sub-Saharan Africa, where about 85% of the world's AIDS-related deaths occurred in 1999, and where in some countries up to 25% of adults are living with HIV/AIDS, cultural factors have played a role in spreading the disease: "superstitions spread in some areas that the best cure for an HIV-infected man was to sleep with a virgin" (Bartholet, 2000, p. 34). This is reportedly a belief held by "millions" (Masland & Nordland, 2000, p. 45).

These data should be considered in light of the causal influence that world views are theorized to exert on subordinate attitudes and on behavior (Fischer, Jome, & Atkinson, 1998; Treviño, 1996). It is thus a logical extension of world view theory to hypothesize that world views are crucial in preventing or facilitating the spread of disease.

One research question explored by a study in this area would be: How does world view affect compliance with recommendations for disease prevention? This question can be explored either in an exploratory way or through hypothesis testing. Given the current state of theory and research regarding world view within health psychology, exploratory research is recommended. However, it would also be appropriate to test hypotheses like the following:

- Hypothesis 22: People who are more likely to comply with recommendations for disease prevention hold the following beliefs:

    a. Human nature, and one's habits, are changeable (Changeable pole on the WAI Mutability scale)

    b. People have free will (Voluntarist pole on the WAI Agency scale).

    c. Rewards result from a person's behavior and characteristics rather than from luck (Internal Locus of Control).

    d. One's present health status has resulted from one's past behavior, rather than from other social factors (Internal pole on the WAI Locus of Responsibility scale).

e. It is best to relate to medical authority in a hierarchical, compliant manner (Linear pole on the WAI Relation to Authority scale).

f. The needs of one's reference group—such as one's family—have priority over one's own agenda (Collectivist pole on the WAI Relation to Group scale).

g. It is most important to focus on preparing for the future rather than on experiencing the present moment or treasuring the past (Future preference on the Time Orientation of the Kluckhohn model).

h. In terms of structuring one's behavior, it is more important to emphasize achievement or self-development rather than to emphasize self-expression (Doing or Being-in-Becoming preferences on the Activity Orientation of the Kluckhohn model).

i. We should seek mastery over natural forces, or should seek to work in partnership with them (Mastery or Partnership preferences on the Humanity-with-Nature Orientation of the Kluckhohn model).

j. Human nature is inherently good (Good preference on the Human Nature Orientation of the Kluckhohn model).

k. Scientific research is a reliable source of knowledge (high score on a to-be-developed Rationality scale within a set of Knowledge scales; see Appendix B).

- Hypothesis 23: People who are less likely to comply with recommendations for disease prevention hold the following beliefs:

a. Human nature is fixed; habits are permanent (Permanent pole on the WAI Mutability scale).

b. Human behavior is completely determined by genetics and training (Determinist pole on the WAI Agency scale).

c. Rewards result from luck, rather than from one's own behavior (External Locus of Control).

d. One's present health status has resulted from the action of larger social forces, such as prior access to health care and socioeconomic status (External pole on the WAI Locus of Responsibility scale).

e. So-called medical "experts" have no special authority (Lateral pole on the WAI Relation to Authority scale).

f. One's own agenda has priority over that of one's reference group (Individualist pole on the WAI Relation to Group scale).

g. It is more important to focus on experiencing the present moment or treasuring the past rather than on preparing for the future (Present or Past

preferences on the Time Orientation of the Kluckhohn model).

h. In terms of structuring one's behavior, it is most important to emphasize self-expression rather than to emphasize achievement or self-development (Being preference on the Activity Orientation of the Kluckhohn model).

i. People should recognize that we all live at the mercy of the forces of nature (Subjugation preference on the Humanity-with-Nature Orientation of the Kluckhohn model).

j. Human nature is inherently flawed or evil (Evil preference on the Human Nature Orientation of the Kluckhohn model).

k. Scientific research is not a reliable source of knowledge (low score on a to-be-developed Rationality scale within a set of Knowledge scales; see Appendix B).

Such a study would probably find that certain world view beliefs are associated with compliance with recommendations for disease prevention, certain world view beliefs are associated with non-compliance, and other world view beliefs are not relevant to compliance. This information can be used to increase compliance, by addressing the matter on the level of world view beliefs. That is, once beliefs have been identified, practitioner-researchers can test and adopt

strategies to increase the effect of compliance-consistent beliefs and mitigate the effect of compliance-inconsistent beliefs.

World View and Disease Recovery

The popular press in recent years has documented evidence of the powerful effects of individual psychology on the healing process (Moyers, 1993; Talbot, 2000). Scientific research has begun to address the role of belief systems and world views in facilitating or hindering recovery from disease (Agrawal & Dalal, 1993; Simonton & Simonton, 1975). The WAI could easily be used to further research in these areas.

For example, matters of spiritual belief have been found to relate positively to adjustment to, for example, breast cancer (Gall, de Renart, & Boonstra, 1999). It is of some interest to see to what extent this relationship is based on specific beliefs (e.g., belief in the presence of God in one's life), and to what extent to more general beliefs, such as that represented by the Spiritualist pole of the Metaphysics dimension in the present study.

Perhaps the most fundamental study to carry out would be a descriptive one. Patients with disorders in various diagnostic categories could be administered the WAI and other world view instruments on intake, and followed over time. Ultimately, such a study would yield data on what world views are associated with good recovery outcomes, and what world views are not, within different diagnostic categories.

Educational Psychology

In terms of world view, education presents an interesting field for research that seems to combine aspects of counseling/psychotherapy and health psychology. This is so because process and outcome in education involve aspects of behavioral change, parallel to both counseling/psychotherapy and disease prevention and control. Plausible hypotheses include the following:

- *Hypothesis 24*. There will be a "teacher culture" effect, such that teachers' world views will tend to resemble one another more than they resemble the modal world views of the teachers' respective ethnic groups. The modal world view of the teacher culture, in turn, will differ significantly from the modal world view of these teachers' students.

Hypothesis 24 translates several sets of findings (Mahalik, 1995; Mahalik, Worthington, & Crump, 1999; Mau & Pope-Davis, 1993) from the context of counseling into the context of education.

- *Hypothesis 25*. The "teacher culture" effect will be to some extent explainable by teacher trainee self-selection, such that individuals who self-select for teacher training (particularly those who complete training) already resemble the "teacher culture" in terms of world view more than they do their ethnic culture of origin.

This hypothesis translates a speculation put forth by Mau and Pope-Davis (1993, p. 48) from the context of counseling into the context of education.

- *Hypothesis 26.* Teacher differences in terms of the Relation to Authority dimension will be associated with differences in teacher behavior, dominance behaviors, and affiliation behaviors in the classroom, in the following manner: a) teachers who tend towards the Linear pole of the Relation of Authority dimension will tend to use more directive responses in class, b) teachers who tend towards the Lateral pole of the Relation to Authority dimension will tend to use more non-directive responses in class, c) teacher-student dyads where teacher and student take opposite positions on the Relation of Authority dimension will exhibit more dominance behaviors than other dyads, and d) teacher-student dyads where teacher and student take similar positions on the Relation to Authority dimension will exhibit more affiliation behaviors than other dyads.

This hypothesis translates Hypothesis 1 from the realm of counseling/psychotherapy into that of education.

- *Hypothesis 27.* Positive educational outcomes and less in-class teacher-student conflict will be associated with teacher or students who hold the following beliefs: a) people have free will in choosing at least some of their behaviors, b) human nature, and one's habits, are changeable by external influence, c) internal locus of control, and d) internal locus of responsibility.

- *Hypothesis 28.* Negative educational outcomes and greater in-class teacher-student conflict will be associated with teachers or students who hold the following beliefs: a) human behavior is completely determined, b) human nature, and one's habits, are fixed and permanent even in the face of external influence, c) external locus of control, and d) external locus of responsibility.

Hypotheses 27 and 28 translate aspects of Hypotheses 5, 6, 7, 8, 22, and 23 from the fields of counseling/psychotherapy and health psychology to that of education.

Cross-Cultural Psychology

Interestingly, the fields of multicultural counseling and cross-cultural psychology take very different approaches to the world view construct. In multicultural counseling, which has its most prominent roots in the counseling literature, world view is "one of the most popular constructs" (Grieger & Ponterotto, 1995, p. 358), and world view is prominently featured in the indexes and chapters of important handbooks in the field (Pedersen, 1985; Pedersen, Draguns, Lonner, & Trimble, 1996; Ponterotto, Casas, Suzuki, & Alexander, 1995). In cross-cultural psychology, on the other hand, a field which has its most prominent roots in social psychology and cultural anthropology, world view is scarcely addressed as a concept. Aside from Rokeach-style values research, and research into the individualism—collectivism dimension, world view is noticeable by the lack of explicit reference to the construct in basic books and reviews in the field (Berry, Poortinga,

& Pandey, 1997; L. L. Adler & Gielen, 1994; Triandis, Malpass, & Davidson, 1972), including absence from every review article on multicultural psychology ever published in the *Annual Review of Psychology* (Bond & Smith, 1996; Brislin, 1983; Cooper & Denner, 1998; Frable, 1997; Kagitçibasi & Berry, 1989; Laboratory of Comparative Human Cognition, 1979; Segall, 1986; Shweder & Sullivan, 1993; Triandis, Malpass, & Davidson, 1973).

It is difficult to account for this discrepancy. One possible reason for the absence of the world view construct from the research literature of multicultural psychology is that, up until now, there has been a dearth of theory-based, psychometrically strong instrumentation with which to conduct research (paralleling the situation in the values research literature; Beutler & Bergan, 1991). It is hoped that the WAI addresses this need, and that, with the advent of this measure, cross-cultural psychology researchers will begin to apply world view theory to their research questions.

The world view construct has a great deal to offer cross-cultural psychology. Some researchers in this area have noted that one of the central questions in the field is

> how best to conceptualize variability within and across cultural settings....We are still only beginning to understand the nature of cross-cultural variation....Likewise, the understanding of intra-cultural variation is an important but not yet achieved goal. (Super & Harkness, 1997, p. 30)

The world view construct would provide a useful framework for conceptualizing inter- and intra-cultural variation. World view can be thought of as an important lower-level mediating variable, in existence at the level of individual psychology, that, like other psychological

variables, can provide understanding of higher-level cultural phenomena (Raybeck, 1998). This approach should not preclude treating world view as a higher-level variable, as well. Use of the world view construct would be a productive way to respond to Betancourt and López's (1993) call for researchers to identify specific aspects of culture that might be responsible for observed intergroup so-called "cultural" differences.

The precise manner of transmission and cultural evolution of such beliefs as world views is a matter of interest. This topic needs to be studied in terms of controlled, systematic ethnographic research as an aspect of the study of cultural evolution (Goodenough, 1999). One relatively new and controversial approach would involve the study of the transmission of patterns of belief as "memes," the cultural equivalent of genes (Blackmore, 1999; Lynch, 1996; Wright, 2000).

A number of fundamental questions involve the way in which other constructs interact with world view, behavior, and experience. For example, acculturation has powerful psychological effects (J. W. Berry, 1989/1995; Marín, 1992), and affects world view (Altarriba & Santiago-Rivera, 1994). However, it is unclear how this occurs. Are all dimensions of world view equally affected by acculturation? Is there a linear relationship between degree of acculturation and world view change?

It has been demonstrated that cultural topics and cross-cultural psychology generally are treated very skimpily at the level of introductory texts in psychology (Lonner, 1989). It may be that a greater use of the world view construct would help build bridges between

cross-cultural psychology and psychology in general, given that the world view construct bridges both monocultural and multicultural treatments of personality and social psychology and therapy, at the very least.

Developmental, Personality, and Social Psychology

World view models seem to agree, explicitly or implicitly, that: a) world view affects behavior, b) behavior affects experience, and c) experience affects world view. (See Figure 3 for a simplified view of these relationships at the macro level.) Thus, world view, behavior, and experience interact and co-influence each other, but little is known about the details. This leaves a wealth of fundamental questions for research to address. The WAI can be helpful in addressing many of these questions, within the context of developmental, personality, and social psychology.

In an area that overlaps developmental and social psychology, it has been hypothesized that some attitudes may crystallize early, and remain little susceptible to change throughout most of the lifespan (Visser & Krosnick, 1998). The question of when world view attitudes crystallize (a question that may yield different answers for different dimensions), and how they change in terms of attitude strength and susceptibility to change throughout the life span, may be investigated through the use of the WAI.
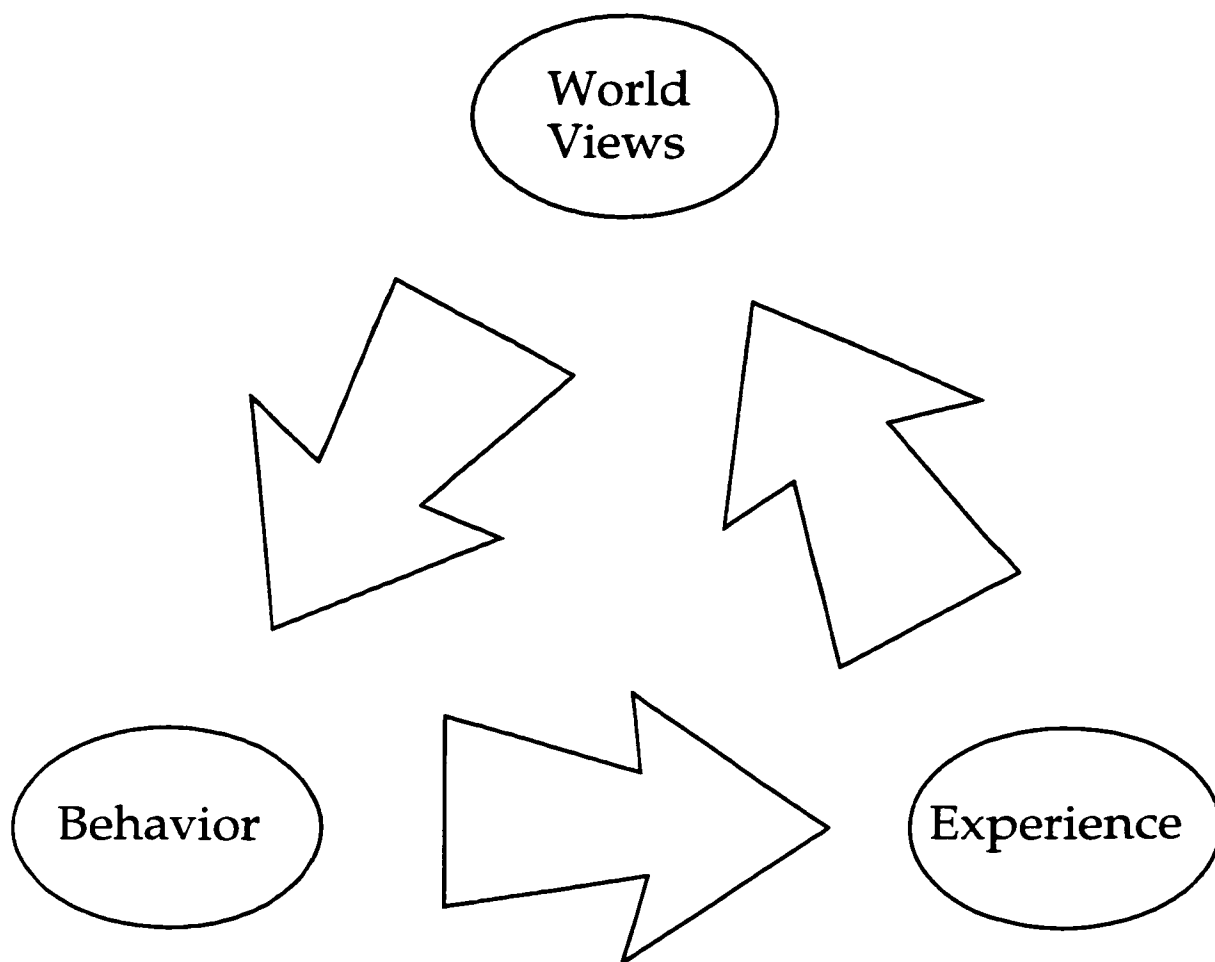
Figure 3. Theoretical causal relationships between world views, behavior, and experience.

A large set of basic questions falls under the heading, in what ways do different personality types differ in world view? For example, the literature suggests that there is broad support for the outlines of the many distinctions that Freud made between the oral and anal personality types (Fisher & Greenberg, 1996); however, the question of differences in world view between these personality types has been left unaddressed. As another example, the Jungian personality types (Jung,

1921/1971) have been related to a wide range of differences in functioning, including communication styles (see review in Bednarski, 1999). However, we are left to ask, for example, in what way do the thinking and feeling types differ in world view? The same kind of questions can be applied across other theoretical models of personality, such as the Big Five model (John & Srivastava, 1999; McCrae & Costa, 1999; Wiggins, 1996), transpersonal models of personality and development (Wilber, 1980/1999a, 1986/1999d, 1999b), and other models of personality (S. M. Johnson, 1994).

It has been claimed that the effectiveness of the socialization process "resides ... in the myriad indirect ways in which we come to acquire our world view" (Sarason, 1984, p. 477), a position that would seem to place the world view construct at center stage in developmental psychology. In this light, a few basic questions suggest themselves: How does personal history shape an individual's early world view? How does ongoing experience re-shape world view? What sorts of world view beliefs are characteristic of different levels of personal maturity (Heath, 1968, 1977) in different cultures? To what extent is variance in world view attributable to education as opposed to surrounding culture or culture of origin (adapted from R. Esposito, personal communication, April 11, 2000)?

The place of agency within a world view-behavior-experience scheme is unclear. It has been noted that agency and world view mutually interact (Howard, 1994b), but the details of this interaction are unclear at this stage of research. It has been claimed that "research has demonstrated beyond doubt that final cause elements are necessary for

an adequate explanation of human actions" (Howard, 1994b, p. 52). If this is so, how do world views affect perceptions of final causes, and thus action?

A few other basic questions include the following: To what extent does world view influence behavior—particularly when other factors would exert a contrary influence? What relation might world views have to cognitive style, a construct that still merits attention in psychology (Sternberg & Grigorenko, 1997)? How do world views function in extreme situations—for example, do they differentiate between those who succeed despite dire poverty, and those who do not (D. W. Miller, 1999)? Are there world views that are more, and others that are less, conducive to optimum human functioning and well-being (Ruark, 1999)?

Abnormal Psychology and Psychopathology

One "key" content area of clinical research involves "cultural influences on adjustment and maladjustment and ... prevention of clinical dysfunction" (Kazdin, 1999, p. 3). Given the centrality of the world view construct to contemporary psychological constructions of culture (Baber, Garrett, & Holcomb-McCoy, 1997; Fischer, Jome, & Atkinson, 1998), Kazdin's description thus places the world view construct squarely in the center of research concerns in abnormal psychology and psychopathology.

In a discussion of abnormal psychology and psychopathology, world view needs to be considered from at least two separate

perspectives: as antecedent condition (i.e., as risk or protective factor), and as outcome. Each of these perspectives will be discussed in turn.

Substantial evidence has accumulated that discredits the disease model of mental disorder, in favor of a multicausal, biopsychosocial model for the etiology of mental disorder (Kiesler, 1999). In multicausal, biopsychosocial models, one crucial issue involves psychological factors that either serve to increase vulnerability to, or to increase protection against, the development of a given disorder (Kiesler, 1999, pp. 201-202). The world view construct is highly applicable to any discussion of risk or protective factors in mental disorder. However, as shown by their absence from a recent review (Alloy, Abramson, Raniere, & Dyller, 1999), world view factors have yet to be addressed in relation to vulnerability-stress models of psychopathology.

Questions to address include, what antecedent world view beliefs increase vulnerability to a given mental disorder? What antecedent world view beliefs serve as protective factors against the development of a given mental disorder? These questions (probably best addressed by prospective studies) can be applied across any diagnostic nosology, including the dominant psychiatric nosology (*DSM-IV*, 1994), or alternative nosologies (Wilber, 1986/1999d).

A separate issue involves world views that are characteristic of mental disorder. That is, controlling for antecedent world view beliefs, are there world view beliefs that typically arise following the development of a given mental disorder?

Psychology of Religion and Transpersonal Psychology

The psychology of religion has long considered the question of the effects of such events as religious conversion on the personality structure and central belief system of the individual (Hood, Spilka, Hunsberger, & Gorsuch, 1996; Wulff, 1997). The interests of the psychology of religion overlap with those of transpersonal psychology in investigations of the effect of Maslovian "peak" experiences, mystical experiences, and contemplative disciplines upon the individual's personality structure and central belief system (Brown & Engler, 1980/1986; Doblin, 1991; Hood, 1974; Koltko, 1991; Lukoff & Lu, 1988; Mallory, 1977; McClain & Andrews, 1969; Pahnke & Richards, 1969; H. Sacks, 1979; Wuthnow, 1978). Consequently, it is not an exaggeration to say that the world view construct has a home in both the psychology of religion and transpersonal psychology.

One question that has only been partially addressed by research is, what are the effects of transpersonal, religious, or spiritual experiences, as well as contemplative disciplines, upon the individual's world view? This question also has a relevance for outcome and training research in counseling and psychotherapy, given that contemplative techniques are being used in counseling and psychotherapy practice (Astor, 1972; Boorstein, 1996, 1997; Cortright, 1997; Deatherage, 1975; Epstein, 1995, 1998; Keutzer, 1984; Newton & Caple, 1985; Rubin, 1985; I. Serlin, 1991; Scotton, Chinen, & Battista, 1996; Wegela, 1994; Wilber, 1986/1999d) and supervision (Dubin, 1991; Okundaye, Gray, & Gray, 1999; Rabin & Walker, 1987).

A related question involves the world view possessed by the individual, antecedent to the occurrence of "peak" experiences. Maslow (1970b) noted that an individual's belief system could block the occurrence, recognition, or integration of peak experiences (effectively all much the same). In light of this, an appropriate research question is, what world view beliefs are antecedent to the occurrence or report of "peak"/mystical/transpersonal experiences?

Faith development theory (Fowler, 1981) is an important theoretical framework for research in the psychology of religion (Hood, Spilka, Hunsberger, & Gorsuch, 1996; Wulff, 1997). This theory outlines stages in the development of spiritual faith that are somewhat similar to Kohlberg's (1981) stages of moral development. A broad range of individual differences in faith development has been noted for adults of similar ages (Canavan, 1999). One question that arises is, what differences in world view are associated with differences in faith development for people of similar ages?

Other questions suggest themselves. What intergroup and intragroup world view differences exist among faith communities? How do world views of "lapsed" members of a faith community compare with those of "core" (i.e., active and observant) members (adapted from M. Eisenstein Ebsworth, personal communication, April 11, 2000)? In view of the fact that over 12% of the sample in the present study indicated more than one religious group, how do the world views of "multireligious" people compare with the world views of "unireligious" people in the same faith communities?

It has been asserted that "Within the psychology of religion, the cry for good theory has reached the level of cacophony" (Hood, Spilka, Hunsberger, & Gorsuch, 1996, p. 446). Perhaps this need for theory can be addressed, at least in part, by the world view construct, which relates a number of psychological constructs together in a construct where values and beliefs are paramount (see theory described in Appendix J). Certainly, use of this construct is a reasonable response to Langman's (1995) request that religion be included as a defining aspect of culture.

Peace Psychology

It has been claimed that particularly intractable U.S. domestic political conflicts are the result of clashes in what have been termed world views in the present research (Hunter, 1994). On a larger scale, it has been claimed that, compared with the Cold War period, post-Cold War international conflict is much less about differing political ideologies, and much more about a so-called "clash of civilizations" (Huntington, 1993), that is, conflict between cultures which differ in terms of what the present research has called world views. At the same time, it has been noted that neither cross-cultural psychology in particular, nor organized psychology generally, has made a significant contribution to discussions of this kind of conflict, despite the likelihood that these conflicts are eminently appropriate for psychological discussions (Segall, Ember, & Ember, 1997, p. 243; Seligman, quoted in Morgeson, Seligman, Sternberg, Taylor, & Manning, 1999, p. 111).

World view theory and instruments such as the WAI provide a means of addressing these issues. It may be that the most effective way to resolve conflicts is to address them directly at the level of world views. If that is the case, an assessment of the differences in world view that exist between conflicting parties is essential.

On the largest scale—conflicts involving the survival of the human race as a whole—it has been claimed that the cause of such perilous situations as the global environmental crisis and the potential for thermonuclear war and high-stakes terrorism can be found in the world views of those who exacerbate such crises (Grof & Valier, 1988; Walsh, 1984). If this is the case, it is reasonable to assume that the solution for these crises may also be found in an understanding of the underlying world views. Here again, assessment of world views with instruments like the WAI is essential to ongoing research and practice in peace psychology.

Finally, it has been claimed that "a major key to social peace and progress is universal education in the toleration and appreciation of 'otherness'" (Axtell, 1998, p. 70). The WAI could be useful in programs designed to increase appreciation of self—other world view differences.

Metapsychology and Unifying Perspectives

It has been claimed that American psychology suffers from the lack of an overarching conception or paradigm (Sarason, 1989). Even within subfields of psychology, it may be that, as in some subfields in academic philosophy (Double, 1996), differences in approach are ultimately rooted in differences in world view. This has been asserted

regarding developmental psychology by Overton (1984, 1991). The same has been noted regarding personality psychology.

> [All] psychologies, like all theologies, contain implicit philosophical anthropologies that inevitably address questions of life's meaning and purpose: who we are to be optimally as persons, how it is that we find ourselves as less than this, what's to be done to improve things, and so on. (Sorenson, 1997, p. 533)

World view theory may be a viable way to address these issues. In terms of supplying an overarching conception or paradigm, the world view construct ties together matters of perception, cognition, motivation, agency, behavior, personality, and social process (including cooperation, competition, altruism, self-aggrandizement, and counseling, psychotherapy, and behavior change). In terms of addressing different approaches in subfields such as developmental or personality psychology, world view analysis—perhaps as aided by assessment instruments such as the WAI—may, at the very least, make clearer the actual grounds of disagreement. Here, as elsewhere, "a clear understanding of the problem prefigures the lines of its solution" (M. Mead as cited by D. Heath, personal communication, January 1981).

APPENDIX J

OUTLINES OF A PRELIMINARY THEORY OF WORLD VIEW

This appendix outlines some facets of a preliminary theory of the world view construct. First, the need for theory in this area is described. Next, the world view construct is described in relation to two facets of the individual, the experiencing self and the acting self, by placing world view in relation to such constructs as sensation, acculturation, memory, perception, motivation, agency, persona, and cognition. The world views of others and the way these affect an individual's experience are discussed. General and testable propositions are derived from the theory. An overall evaluation of the theory is made. A summary concludes the appendix.

The Need for Theory

It has been asserted that "the basic aim of science is theory," that is, the explanation of natural phenomena (Kerlinger & Lee, 2000, p. 11). A theory, in turn, is

> a set of interrelated constructs ..., definitions, and propositions that present a systematic view of phenomena by specifying relationships among variables, with the purpose of explaining and predicting the phenomena. (Kerlinger & Lee, 2000, p. 11, emphasis omitted)

Specifically within psychology,

> A psychological theory puts a collection of concepts and their
> associated laws into a structure that allows the deduction of
> behavioral consequences. (Kimble, 1989/1998, p. 31)

From these perspectives, the present dissertation has thus far been somewhat incomplete in its treatment of the theory of world view.

The present study has produced a relatively reliable world view instrument that shows preliminary indications of validity, but it has done so without formally delineating the relationship of world view, either to observables or to other major constructs in psychology, such as cognition and personality. The literature reviewed in Chapter II and Appendix A (and recast in Appendix B) concerns different models of the components of world view, but these do not comprise, strictly speaking, a theory or theories of world view, because of the lack of explicit connection to other constructs or observables.

The lack of a theory of world view creates a serious problem for psychological research at a fundamental level. As Serlin has put it, "it is only on the basis of theory that one can decide on an appropriate hypothesis to be tested" (Serlin, 1987, p. 365). Without theory, we are left only with a relatively useless, scattershot approach to research, which some have labeled "promiscuous empiricism" (Dittes, cited in Hood, Spilka, Hunsberger, & Gorsuch, 1996, p. 446).

To have even a rudimentary theory of world view, two things are required: a model of the construct (i.e., its components), and a notion of how the construct relates to other constructs and to observables such as behavior. Appendix B of the present study outlines a model of the structure of the world view construct, by describing its

components and sub-components (i.e., groups of world view dimensions, the dimensions themselves, and their polar options). The present appendix describes some ideas about how the world view construct relates to other constructs and observables. Together, Appendix B and the present appendix, then, form the outlines of a preliminary theory of world view.

Although some authors have presented what amount to "mini-theories" of world view, relating the construct to change in the multicultural counseling process (e.g., Fischer, Jome, & Atkinson, 1998; Treviño, 1996), heretofore there has not been, even in a compact form, an explicit statement of how world view relates to most relevant psychological constructs. The causal processes that explain the relationship between values (and, by implication, world views) and behavior have been "a matter of continuing debate" (P. B. Smith & S. Schwartz, 1997, p. 92)—and, it might be added, a debate conducted in the absence of theory. Questions that arise include: What role does a world view play in the functioning of the individual? How does a world view relate to such constructs as agency and personality traits?

At the highest level of abstraction, it will be useful to consider the relationship of two high-level constructs and an observable: self, experience, and behavior (Figure 4). The similarity of Figure 4 to Figure 3 will be obvious. In the proposed theory, behavior is defined very broadly, to include all varieties of observed behavior (including self-reports of purportedly interior or unobservable events such as affects and cognitions). The two high-level constructs, self and experience, are described in detail below, in connection with the

explications of Figure 5 (the experiencing self), Figure 6 (the acting self), and Figure 7 (sources of experiential stimuli).
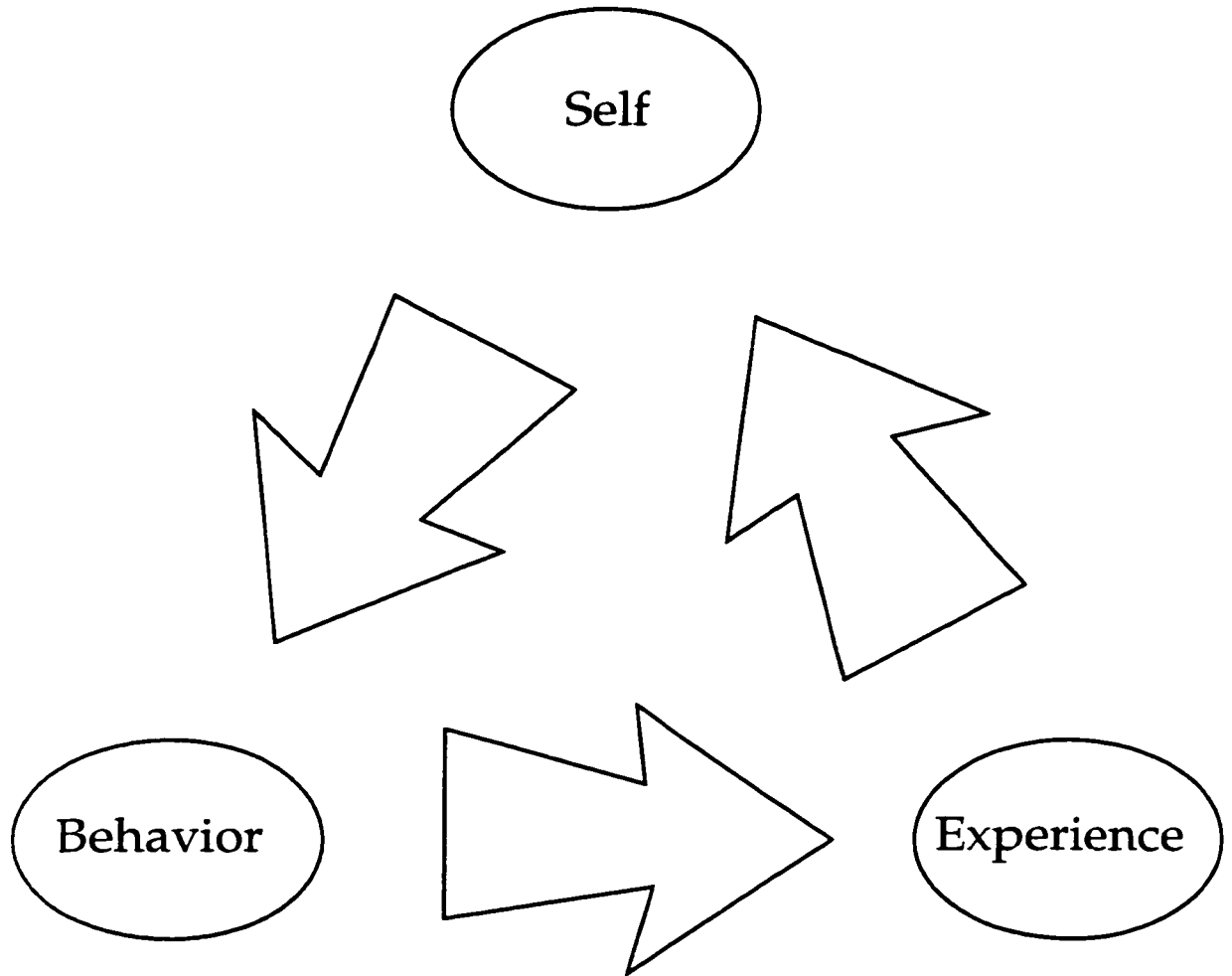

Figure 4. Theoretical causal relationships between self, behavior, and experience.

Self and World View

The model of self used in this theory is illustrated in Figure 5 (which shows the path that a stimulus takes from sensation to perception) and Figure 6 (which shows the path that an individual's response to a stimulus takes from motivation to execution).

World View and the Experiencing Self

Figure 5 illustrates the aspects of the self that are involved when a stimulus impinges on the individual. These aspects include *sensation*, the *acculturation buffer*, *world view*, and the *perceptual core*. It will be seen that the antecedent in Figure 5, the stimulus, is synonymous with experience as seen in Figure 4.

A stimulus directed at the individual first encounters psychophysiological processes (heavily influenced by the individual's genetic endowment) of *sensation*. It appears that although there are important cultural influences on perception, there is no clear evidence of cultural influences on sensation (Russell, Deregowski, & Kinnear, 1997). When a stranger on the street says a word to the author, that word has the same impact on the author's auditory sensorium as it would have on the auditory sensorium of an Inuit in Alaska, or a descendant of Socrates in Greece. The emotional impact and meaning attributed to that word would be different for the three of us, but emotional impact and meaning do not pertain to the sphere of the sensorium.
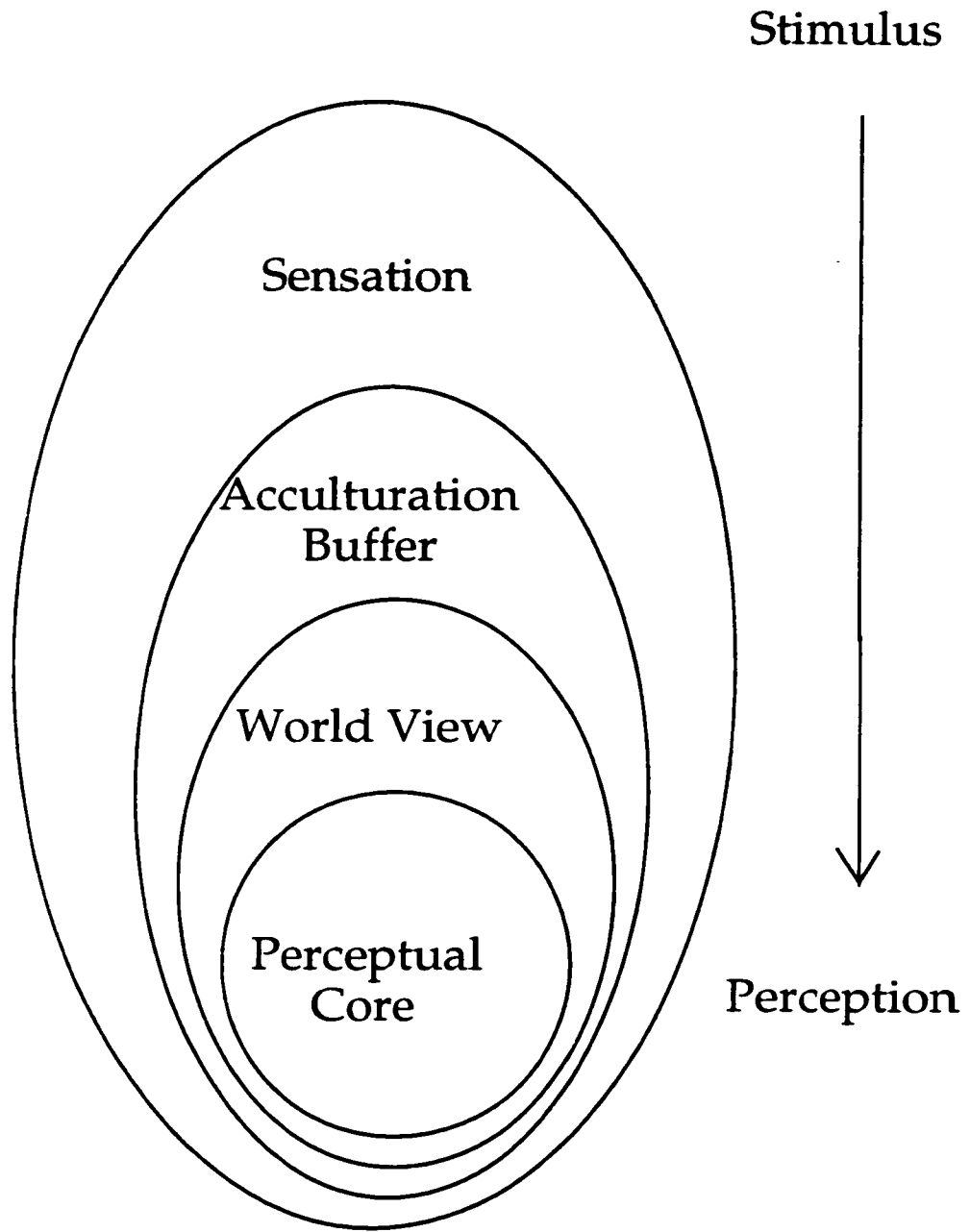
Stimulus

Sensation

Acculturation
Buffer

World View

Perceptual
Core

Perception

Figure 5. The experiencing self.

A stimulus directed at the individual next encounters the *acculturation buffer*. In this theory, acculturation refers to the extent to which an individual has a commitment to a particular culture's mode of valuation and expression. Acculturation thus has affective, cognitive, and behavioral aspects. The *acculturation buffer* is an abstraction that describes the extent to which the stimulus takes on a cultural meaning that is relevant to the individual (after the access of memory stores, not illustrated), as determined by the individual's primary culture (and the individual's secondary cultures, if any). When strangers on the Lower East Side of Manhattan call the author, "Compadre," or "Boychik," the impact of those statements will be different depending on the extent to which the author is acculturated to Spanish-speaking or Yiddish-speaking culture. This acculturation includes, not just a knowledge of the relevant languages, but also an investment in the system of emotional interpretation that pertains to each of these communications in the cultures involved.

The stimulus' next interpretive step is the individual's *world view*. This, of course, is the set of assumptions or beliefs that the individual has about life and the world, a set that can be modeled along the lines set out in Appendix B. When a stranger on the street calls the author "Compadre/Boychik," the interpretation given to this statement will be different depending upon what assumptions the author holds regarding, for example, moral orientation ("This person, like all people, is just trying to be friendly" versus "This person, like all people, is trying to manipulate me").

The stimulus trace then encounters the *perceptual core* processes of the individual. At this point, the stimulus is fully invested with meaning, and the self "experiences" the percept as a gestalt. In the preceding example, possible meanings are many, depending upon the nature of the individual's acculturation buffer and world view. For example, possible meanings include: "This is a friend," "Someone legitimately needs my assistance," "This person is trying to help me," "This person is about to attempt to rob me," "I am being greeted, and now I have incurred the obligation to respond appropriately according to the social status of the speaker relative to me," and so forth.

World View and the Acting Self

Figure 6 illustrates the aspects of the self that are involved when an individual responds to a stimulus, as impulse becomes behavior. These aspects include the *motivational core*, the *world view*, the *agentic core*, the *persona* and *cognitive processes*, and the *acculturation buffer*. It will be seen that the consequent output in Figure 6, individual behavioral response, is synonymous with behavior as seen in Figure 4.
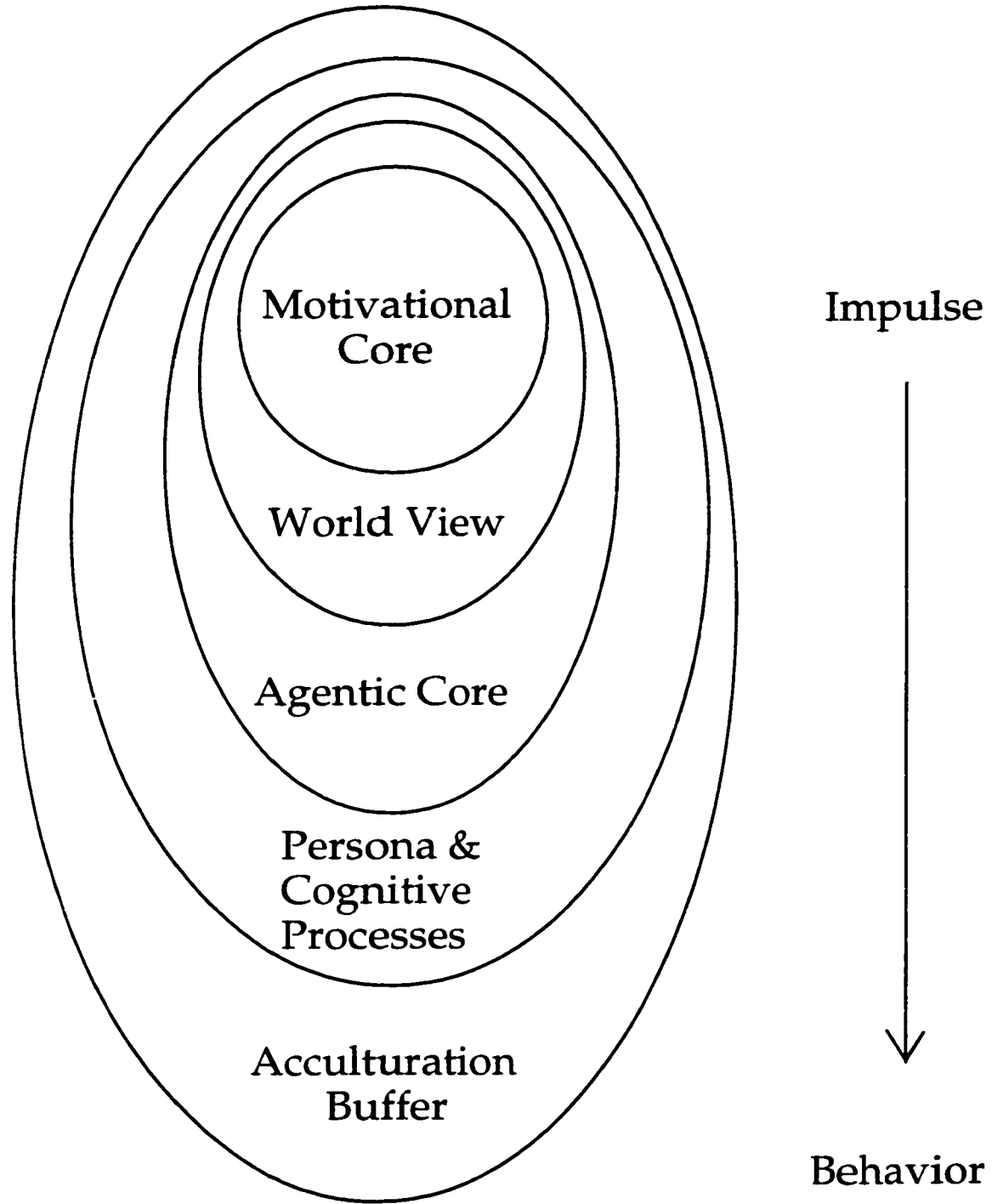
Figure 6. The acting self.

The *motivational core* is the engine that powers the individual's behavioral system, as it were. Motivation is constructed differently in different theories of personality. It would seem, however, that all schemes of personality agree that human personality involves motivational impulses of some sort, be they the unconscious id impulses of Freudian psychoanalytic theory, the teleological impulse to individuation of Jungian psycho-analysis, or the teleological motivation to self-actualization and self-transcendence of Maslovian motivational theory (to mention only three of many possible theoretical constructions of motivation). It should be noted that, in the proposed theory, a motivational impulse may arise in connection with a perception experienced by the individual (Figure 5), or independently of such a perception.

Thus, to modify the example mentioned in the preceding section, let us assume that Person A has said a non-English word of greeting to Person B, who is a stranger to Person A. Let us further assume a Maslovian model of motivation (Maslow, 1969, 1970a). The predominant motivational level apparent in Person B would make a great deal of difference in terms of molding the behavior that Person B ultimately emits. For example, if Person B is primarily motivated by safety concerns, at this point, the impulse might involve addressing safety concerns (everything from seeking to gain Person A's protection to seeking protection from Person A); if Person B is primarily motivated by belongingness and affiliation concerns, the impulse might involve addressing those concerns (e.g., seeking to make Person

A's acquaintance, or avoiding Person A because of the impact of such an acquaintance on Person B's social standing).

The motivational impulse is next conditioned or informed by the individual's *world view*, which lays out a sense of what should be done to act on the impulse, and how this might be accomplished. For example, Person B's position on the Activity dimension (Appendix B; F. Kluckhohn, 1950) could make a great deal of difference in shaping the ultimate behavior. If Person B held a Being orientation on this dimension, which values experiencing the possibilities of the moment, a conversation might be more likely ("let's enjoy this moment together") than if Person B held a Doing orientation, which values external achievement ("must run—I have things to do!").

Motivational impulses next encounter the *agentic core*, which is the locus of personal agency. In the proposed theory, personal agency is real, not merely a self-perceptual illusion, and reflects that portion of a person's capacity to choose that is not conditioned by genetic or social forces. This is not the same as random choice, nor is it to say that the resulting behavior is undetermined; it is to say that agency itself is a determining force in behavior, and that agency acts, not in a vacuum, but informed by one's world view. It is recognized that taking this position raises a number of questions, such as, what does "choice" mean? and, where does agency "come from"?—yet, it must be recognized that these questions are beyond the scope of the present work.

The present author recognizes that some authors (e.g., Kimble, 1989/1998, p. 20) consider a thoroughgoing genetic and environmental

determinism to be a central tenet of a scientifically rigorous psychology. However, the work of other researchers and theoreticians (e.g., G. S. Howard, 1993, 1994a, 1994b; Mahoney, 1993; Rychlak, 1979; Slife & Fisher, 2000; Tinsley, 1993) demonstrates that there is place within a rigorous psychology for agency. Despite the difficulty that one encounters in attempting to operationalize the construct of agency, it cannot be ignored, and it should take its place in psychological theory even pending its operationalization. "To insist that every term we use in scientific discourse be operationally defined would be too narrowing, too restrictive, and ... scientifically unsound" (Kerlinger & Lee, 2000, p. 44).

The world-view-colored choice is next filtered through the individual's *persona* and *cognitive processes*. The *persona* supplies more of the individual twist to behavior, in terms of affective overlay and personal flavor. (Returning to the greeting-on-the-street example, the ultimate behavior of Person B would be quite different if she or he had schizoid tendencies as opposed to dependent ones.) The *cognitive processes* structure the details of implementing the choice, in light of current circumstances. (For example, Person B's response, if any, will reflect this person's general level of intellect, skills at spontaneous verbal composition, vocabulary, and so forth.) There have long been noted to be significant cultural influences on cognition (Mishra, 1997; Schliemann, Carraher, & Ceci, 1997), influences which may well function independently of cultural influences on world view or acculturation.

Finally, the *acculturation buffer*, the expression of the internalized culture of the individual, puts the choice into a form that is culturally acceptable to the individual emitting the behavior. (For example, Person B may be socialized in a culture where one simply must respond to any greeting on the street with a polite response, whether the greeting is from a stranger or no, whether the greeting is in a familiar language or not.) The culturally embedded choice is then emitted as the individual's response—a behavior that is consistent with the individual's acculturation, world view, personality, and cognitive processes.

World View and the Stimuli of Experience

The sphere of experience that is shown in Figure 4 is illustrated in more detail in Figure 7. In the proposed theory, experience is composed of stimuli impinging upon the individual's consciousness. The sources for these stimuli include the *natural world, somatic sensation,* and *others' behavior,* the last of which may reflect either *primary* or *secondary cultural world views.*

The *natural world* involves stimuli emitted from the non-human environment. These include a heterogeneous collection of experiences: sunny days, leaping predators, catastrophic earthquakes, and so forth.
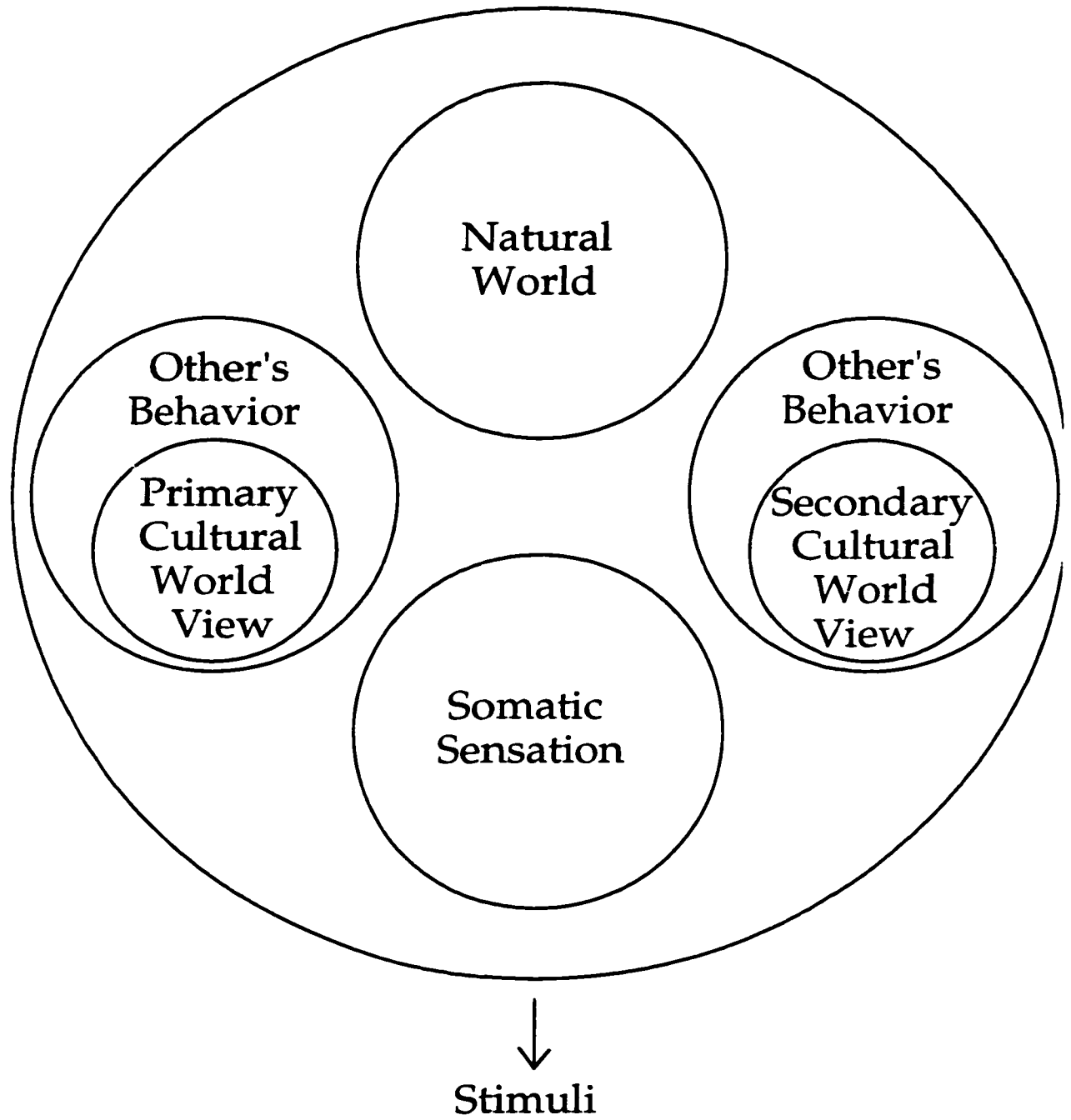
Figure 7. Sources of experiential stimuli.

Somatic sensation involves stimuli emitted from within the individual's own body. These also include a heterogeneous collection of experiences: sleepy satiety, sexual orgasm, devastating illness, and so forth.

Others' behavior involves stimuli emitted towards the individual by others, which in turn may or may not be in response to the behavior of the individual. The circles marked "other's behavior" in Figure 7 may be thought of as representing numberless such circles, each one of which consists of a replication of the modules shown in Figures 5 and 6, but for a different individual, an Other. (It should be noted that the proposed theory of world view is thus infinitely recursive, in that each Other suggested in Figure 7 actually contains a perceiving self [Figure 5] and an acting self [Figure 6] that interact with experience [Figure 7]. In addition, the proposed theory of world view exhibits feedback, in that the behavior emitted by the Self has an impact on Others, which may change the behaviors emitted by these Others, which in turn become further stimuli for the Self.)

It should be noted, however, that there may be a particularly salient difference among these Others. Some of them will hold world views similar to the modal world view of the primary culture of the perceiving self of the individual. On the other hand, in a multicultural society, some of these Others will hold radically different ("secondary") world views. This difference is suggested by the components labeled *Primary Cultural World View* and *Secondary Cultural World View* in Figure 7.

Implications of the Proposed Theory

What does this theory of world view propose concerning how world view functions in the life of the individual? Several points become apparent in considering the theory as outlined.

First of all, according to the proposed theory, world view is central in the life of the individual, in that it mediates both perception and response. There is no way for a stimulus to reach the perceptual core of the individual without being processed by the individual's world view. Similarly, there is no way for a motivational impulse to become behavior without being processed by the individual's world view.

Similarly, according to the proposed theory, acculturation is crucial in the life of the individual. Although acculturation has not historically been considered a central construct of psychology heretofore, this is probably an artifact of academic psychology's predominantly monocultural emphasis, where "psychology" meant psychology as devised by White theoreticians in North America and Europe (Sinha, 1997, p. 135). The meaning of acculturation and its importance would only become apparent in the cross-cultural or multicultural encounter, an encounter to which academic psychology has paid serious and sustained attention just beginning in the later 1960's and the 1970's (M. L. Jackson, 1995, pp. 10-12; Jahoda & Krewer, 1997). One of the implied messages conveyed by the proposed theory is that acculturation is central, and central for everyone. This underscores the importance of research into models of ethnic identification and acculturation. Researchers should note that

acculturation is both multidimensional and situational (Gushue & Sciarra, 1995, p. 590), and deserves careful theoretical formulations in its own right (Berry, 1989/1995).

The proposed theory also has important implications for counseling and psychotherapy. It would appear that the level of world view is a "deep" level of the self to which counseling and psychotherapy can usefully address the concerns of the individual.

Looking at counseling and psychotherapy from the "experiencing self" side of the model (Figure 5), it is apparent that clients sometimes run into difficulties due to misperceptions and conclusions. (E.g., "I've lost my job—hence my future is hopelessly and irredeemably bleak ...") Such misperceptions can lead to serious problems in terms of likely resultant behaviors (E.g., "... so I might as well just give up on life.") However, attempting to intervene at the level of the perceptual core itself is somewhat problematic, and once a percept is formed, certain behaviors seem logical, however self-destructive. However, it would seem easier to achieve significant and lasting improvement by helping clients to restructure their world views, which informs the percept.

On the "acting self" side of the model (Figure 6), similar considerations apply. The agentic core acts in light of the world view that is embedded within it. By helping to restructure the world view, the counselor/therapist gives the client an opportunity to put on a new set cf eyeglasses, as it were, which informs the agentic core as it chooses behavior.

The present author is tempted to make the claim that successful therapy is worldview therapy, addressed by whatever methods the counselor/therapist uses. A restatement of approaches to counseling and psychotherapy in world view terms would be a worthwhile theoretical project with important implications for practice. In light of considerations about common factors in psychotherapy (Fischer, Jome, & Atkinson, 1998), it may ultimately turn out that one common factor to successful counseling and psychotherapy is a focus on world view adjustment.

Development and World View

As depicted, the proposed theory has no explicit developmental component to it. It does not speak to the issue of how world views develop and change. Of course, it is difficult for a theory to simultaneously depict development and functioning-in-the-moment, but the developmental question should be addressed.

It may be useful to consider world view as a sort of "layer" of self that develops over time. At birth, the individual is a creature of, if not instinct, then surely genetics. On the stimulus side of the model, the individual is all sensation and genetically-programmed perception. On the response side, the agentic core primarily reflects genetically-programmed personality traits, with a few genetically-programmed reflexes. Over time, the other layers of the self develop, world view prominent among them.

This growth is something both mandated by human nature and influenced by experience. The theory asserts that at least all reasonably

adaptive human beings have a world view; however, the nature of that world view is dependent on many factors, expressed through the "experience" side of the model (Figure 7).

Testing the Proposed Theory

It has been asserted that the essence of the scientific method is the process through which predictions based on a model or theory are subjected to trial (and, thus, the possibility of refutation) through research (Kerlinger & Lee, 2000, pp. 15-19) In some philosophies of science, the worth of a theory is judged, in part, on the degree to which that theory yields falsifiable propositions (e.g., Popper, 1963). For many, "falsifiability is the criterion that marks the boundary line between science and nonscience" in psychology (Kimble, 1989/1998, p. 21).

At first glance, it might seem as if the proposed theory of world views is a poor candidate for yielding falsifiable propositions. After all, it makes use of a variety of theoretical constructs (sensation, perception, memory, agency, personality traits, cognitive processes), none of which can be directly measured, and then adds to the list two more such constructs, acculturation and world view. We are left with a congeries of intangibles (not a pretty image, to be sure), where unseeable entities are affected by other unseeable entities, and affect, in turn, yet other unseeable entities. From this perspective, the proposed theory might seem like a soap opera inhabited solely by invisible ghosts. And, indeed, so it would be—were it not for the connection to behavior. For it is through behavior that the constructs addressed in this theory become manifest, as is so often the case in psychology:

"Mentalistic concepts enter psychology as inferences from behavior" (Kimble, 1989/1998, p. 25).

The ultimate connection of the components of the theoretical model to behavior is one factor that makes it possible for the proposed theory to yield falsifiable propositions. Another enabling factor is the presence of psychological instrumentation (now including the WAI) to assess most of the components of the proposed theoretical model. The third enabling factor is what might be termed the fundamental assumption of the proposed theory of world views, which may be stated thus:

> All other things being equal, an individual's behavior will be consistent with that individual's world view, acculturation, persona, cognitive processes, and dominant motivational impulses.

In light of this fundamental assumption, two general falsifiable propositions can be formulated, as follows:

- *Proposition 1.* When confronted with similar stimuli, different individuals with similar acculturation, world view, personae, cognitive processes, and dominant motivational type will report similar percepts and emit similar responses. (Note that, although a perception is a psychological construct, the *report* of a percept is an observable behavior.)

- *Proposition 2.* The greater the degree of dissimilarity between two individuals in terms of acculturation, world view, personae, cognitive processes, and dominant

motivational type, the greater the dissimilarity of their reported percepts and their emitted responses when confronted with similar stimuli.

It may be argued that these propositions say nothing about the supposed sequence of processes described in the theoretical model (e.g., the stimulus is sensed, *then* encounters the acculturation buffer, *then* world view, *then* perception), and this is certainly true. To the present author, this seems like a relatively minor point; if the major components of the experiencing and acting self are identified correctly by the model, questions of sequence may not be so crucial.

Overall Evaluation of the Proposed Theory

This statement of a theory of world view ties together different areas and approaches to psychology. Sensation, perception, memory, cognitive processing, and behavior are explicitly addressed. Individual personality (and, by implication, individual psychopathology) interface with social and cultural processes. In terms of theoretical orientations within psychology, the focus on both behavior and cognition creates a home in the theory for cognitive science and cognitive-behavioral approaches; there is room for both psychodynamic and humanistic approaches to human motivation. If one preliminary measure of a good theory is its ability to tie together many constructs into a conceptually orderly package that can be interpreted from multiple theoretical perspectives, then the proposed theory would seem to fit the bill.

It has been stated as a tenet of traditional scientific psychology that:

> A concept is acceptable to psychology only if it meets both of two criteria. It must be defined operationally and have a relationship to behavior. (Kimble, 1989/1998, p. 29)

By this criteria, the world view construct, as conceptualized within the proposed model, appears to be acceptable within a scientifically rigorous psychology. It can be defined operationally (e.g., through the WAI, the development of which was the objective of the present dissertation), and the proposed theory specifies its relationship to behavior in multiple ways.

In sum, as abbreviated as it is, this outline of a theory of world view shows the world view construct to be conceptually useful and theoretically fruitful. It can be related to psychological processes on many levels of abstraction, and is compatible with multiple theoretical orientations within psychology. It is hoped that this brief exposition will make it easier for theoreticians and researchers in various areas of psychology to use this robust construct.

Appendix Summary

Previous formulations of world view have focused on a model for the construct (i.e., describing its components and dimensions) rather than on a theory for the construct (i.e., relating it to other psychological constructs). A preliminary theory of world view was described, placing the world view construct in relation to sensation, acculturation, and other constructs, as these are theorized to exist within the perceiving individual and the acting individual. Sources of

stimuli were described, which include the behavior of others that is itself mediated by the world views of those others. A fundamental assumption of the theory was described, stating that an individual's perceptions and behaviors are consistent with that individual's world view, acculturation, and so forth. Two general and testable propositions derived from the model were described, in terms of the similarity or dissimilarity of behavior that the model hypothesizes will be observed for individuals of similar or dissimilar world views, acculturation, and so forth. The theory appears to exhibit characteristics of useful and fruitful theoretical formulations in psychology.