

## The Psychology of Worldviews

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A worldview (or “world view”) is a set of assumptions about physical and social reality that may have powerful effects on cognition and behavior. Lacking a comprehensive model or formal theory up to now, the construct has been underused. This article advances theory by addressing these gaps. Worldview is defined. Major approaches to worldview are critically reviewed. Lines of evidence are described regarding worldview as a justifiable construct in psychology. Worldviews are distinguished from schemas. A collated model of a worldview’s component dimensions is described. An integrated theory of worldview function is outlined, relating worldview to personality traits, motivation, affect, cognition, behavior, and culture. A worldview research agenda is outlined for personality and social psychology (including positive and peace psychology).

It is a commonplace observation that “everybody sees the world in his or her own way.” However trite, this truism conceals an ancient and profound insight, the implications of which have been but poorly grasped in contemporary psychology. Approximately 2,500 years ago, it is said, the person we know as Buddha noted:

We are what we think.  
All that we are arises with our thoughts.  
With our thoughts we make the world.  
(Byrom, 1976/1993, p. 1)

In modern times, we have seen this insight phrased in notable ways by poets and artists.

Anaïs Nin is said to have observed, “We don’t see things as they are, we see them as we are.” As the artist Marvin Hill expressed it in one of his wood block prints: “The eye forms the world / the world forms the eye.”

Put more prosaically, the nature of this insight is that human cognition and behavior are powerfully influenced by sets of beliefs and assumptions about life and reality. Applied to the individual level, this insight has implications for theories of personality, cognition, education, and intervention. Applied to the collective level, this insight can provide a basis for psychological theories of culture and conflict, faith and coping, war and peace. Particularly as psychologists search for ways to reintegrate the discipline after a century of tumultuous and fractious growth, it would be worthwhile for psychology and its subdisciplines to focus on a construct that is central to this aforementioned insight, a construct with a long history and broad applicability but a dearth of serious theoretical formulation. This is the construct of worldview (or “world view”).

Worldviews are sets of beliefs and assumptions that describe reality. A given worldview encompasses assumptions about a heterogeneous variety of topics, including human nature, the meaning and nature of life, and the composition of the universe itself, to name but a few issues. The term *worldview* comes from the German *Weltanschauung*, meaning a view or perspective on the world or the universe “used to describe one’s total outlook on life, society

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and its institutions” (Wolman, 1973, p. 406). “A set of interrelated assumptions about the nature of the world is called a worldview” (Overton, 1991, p. 269). In the largest sense, a worldview is the interpretive lens one uses to understand reality and one’s existence within it (M. E. Miller & West, 1993).

Specialists in various subdisciplines of psychology have indicated that worldview has a central role in such fields as developmental psychology (Overton, 1991), environmental psychology (Altman & Rogoff, 1987), sport psychology (Kontos & Breland-Noble, 2002), general counseling and psychotherapy (Ibrahim, 1991; A. P. Jackson & Meadows, 1991), and especially multicultural counseling and psychotherapy (Fischer, Jome, & Atkinson, 1998; Ibrahim, 1999; Ibrahim, Roysircar-Sodowsky, & Ohnishi, 2001; Treviño, 1996). Indeed, if we are willing to consider ways in which aspects of worldview may appear under other names (e.g., “values” or “schemas”), we may find the worldview construct hidden in the central literature of a number of psychological subdisciplines, including cognitive, social, personality, and cultural psychology. All of this is so despite the construct’s neglect in the mainstream theoretical literature. If one reads how some authors describe the value of the worldview construct to their subdiscipline (e.g., “One of the most popular constructs in the multicultural counseling literature is that of ‘worldview’”; Grieger & Ponterotto, 1995, p. 358) and then contrasts such comments with the absence of the construct from standard texts, handbooks, encyclopedias, and so forth (e.g., Kazdin, 2000), one comes away with the impression that worldview is the most important construct that the typical psychologist has never heard of.

If the worldview construct is to contribute appropriately across disciplines in the social sciences, and across subdisciplines within psychology, it will be necessary to come to a common understanding about what sorts of things the worldview construct addresses and how it functions within individual psychology. The present article is meant to advance this effort in several ways. First, I briefly define worldview in formal terms and specify its relationship to other important constructs, such as beliefs and values. Second, I review the major conceptualizations of worldview that emerged during the 20th century, focusing on authors in psychol-

ogy, anthropology, and philosophy. Third, I justify the status of worldview as a psychological construct. Fourth, on the basis of the earlier review, I propose a model of the different dimensions of worldview. Fifth, I outline a theory of how worldview functions within individual personality. Finally, I suggest items for a worldview-oriented research agenda within personality and social psychology.

### Defining “Worldview”

Worldview has gone by many names in the literature: “philosophy of life” (Jung, 1942/1954), “world hypotheses” (Pepper, 1942/1970), “world outlook” (Maslow, 1970a, p. 39), “assumptive worlds” (Frank, 1973), “visions of reality” (Messer, 1992, 2000), “self-and-world construct system” (Kottler & Hazler, 2001, p. 361), and many others. In anthropology alone, worldviews have been denoted as “cultural orientations” (Kluckhohn, 1950), “value orientations,” “unconscious systems of meaning,” “unconscious canons of choice,” “configurations,” “culture themes,” and “core culture” (Kluckhohn & Strodtbeck, 1961/1973, pp. 1–2). Beyond the confusion created by using many names for the same construct, the worldview concept, as shall be seen, has been defined in perhaps as many ways as it has been named. For present purposes, worldview may be defined conceptually as follows:

A worldview is a way of describing the universe and life within it, both in terms of what is and what ought to be. A given worldview is a set of beliefs that includes limiting statements and assumptions regarding what exists and what does not (either in actuality, or in principle), what objects or experiences are good or bad, and what objectives, behaviors, and relationships are desirable or undesirable. A worldview defines what can be known or done in the world, and how it can be known or done. In addition to defining what goals can be sought in life, a worldview defines what goals should be pursued. Worldviews include assumptions that may be unproven, and even unprovable, but these assumptions are superordinate, in that they provide the epistemic and ontological foundations for other beliefs within a belief system. (adapted from Koltko-Rivera, 2000, p. 2)

The theorists reviewed in this article were chosen because they explicitly spoke to such beliefs, whether or not they used the term *worldview*.

It is important to distinguish among *worldviews*, *beliefs*, and *values*, whose relationship is

illustrated in Figure 1. Following Rokeach, worldviews and values are both beliefs, but values represent only one of several types of belief.

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)

Although values particularly reflect prescriptive or proscriptive beliefs, worldview statements may refer to beliefs of any of the three kinds mentioned by Rokeach. Worldview statements that describe entities thought to exist in the world (e.g., “There exists a God or Goddess who cares for me personally”) are existential beliefs. Worldview 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. In each case, the implication is that these statements are objectively either true or false.

Worldview statements that describe human beings or actions in evaluative terms (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., “The thing to do in life is to live in the moment”), are prescriptive or proscriptive beliefs. Only the latter are properly called values, following Rokeach.

Not all beliefs are worldview beliefs. Beliefs regarding the underlying nature of reality, “proper” social relations or guidelines for living, or the existence or nonexistence of important entities are worldview beliefs. Other beliefs are not.

In summary, beliefs may be existential, evaluative, or prescriptive/proscriptive, of which values refer only to the last kind; a given worldview may include all of these kinds of beliefs, but not all beliefs are worldview beliefs. Worldviews thus encompass certain values but go beyond to include other kinds of beliefs as well.

### Major Approaches to Worldview During the 20th Century

After a brief look at some pre-20th-century approaches, I consider here a number of 20th-century conceptualizations of worldview. These include approaches informed by philosophy (Pepper and Stace), anthropology (Kluckhohn), and several subdisciplines of psychology, including psychoanalysis (Freud and Jung), personality theory (Kelly, Wrightsman, Maslow, and Coan), philosophy of psychology (Royce), social psychology (Lerner; the terror management researchers), and multicultural counseling (Sue). I ignore here the matter of psychometric instrumentation that has been developed within many of these approaches. I refer to the research literature selectively, emphasizing recent empirical work that demonstrates a connection between a given conceptual framework for worldview and a research program conceived *outside* of that framework (concerning instrumentation and a fuller discussion of research, see Koltko-Rivera, 2000).

This review emphasizes *dimensional* rather than *categorical* approaches to worldview. As L. A. Clark and Watson (1995) put it (regarding psychometrics), categorical approaches “categorize individuals into qualitatively different groups,” whereas dimensional models “differentiate individuals with respect to degree or level of the target construct” (p. 313). (For

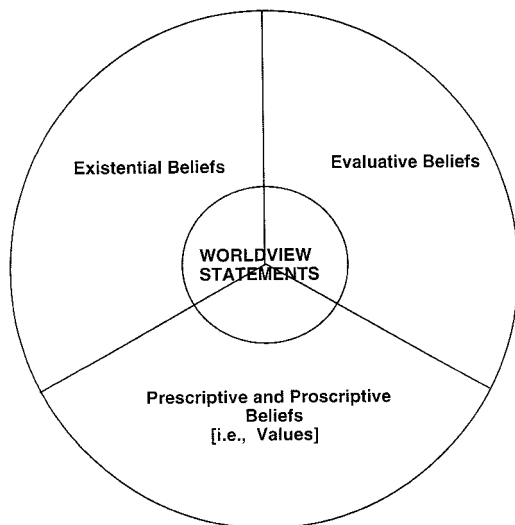


Figure 1. Conceptual relationships among beliefs, values, and worldview statements.

example, diagnoses such as those included in the *Diagnostic and Statistical Manual of Mental Disorders* involve a categorical approach to psychopathology, whereas Minnesota Multiphasic Personality Inventory profiles reflect a dimensional approach.)

Although a number of interesting categorical approaches to worldview have appeared, it is my belief that dimensional models have more to offer psychology at this point. Different dimensional approaches can be combined fairly easily; such a merger between categorical approaches is extremely difficult to accomplish, at best. Dimensional approaches lend themselves to instrumentation using at least an ordinal level of measurement, thus permitting more sophisticated statistical analyses than categorical approaches, which, by definition, use a nominal level of measurement. Finally, it can be argued that any categorical approach to worldview can be described in terms of one or more underlying dimensions.<sup>1</sup> The opposite does not hold true; dimensional approaches may *not* be reduced, even in principle, to categorical approaches. For these reasons, the theories selected for review here are those that have the most light to shed on dimensions of worldviews. Near the conclusion of this review, I briefly consider a few promising categorical approaches.

### *Prelude: Pre-20th-Century Approaches*

It may be said that any philosophical or religious system is itself a way of viewing the universe and hence is a worldview. The accounts that exist 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, infrahuman, and suprahuman).

To focus on the 19th century, Friedrich Nietzsche's (1872/1956) descriptions of the Apollonian and Dionysian approaches to life marked two developments in the study of worldviews. First, Nietzsche recognized that worldviews encompass more than theogony and cosmogony and include a sense of the ends to which human life and activity should be directed. Second, Nietzsche's description of two competing systems highlighted the fact that there are *alternative* worldviews, mutually exclusive approaches to life and descriptions of

reality. Previous to this point, philosophical discussion concerning worldviews had proceeded along the lines of simply asserting and buttressing exclusionary claims to truth. Nietzsche's insight was that different worldviews have an independent validity and appeal for those who hold them, and that it is worthwhile to compare worldviews in other ways than merely to claim that a given one is exclusively true.

For the German philosopher Wilhelm Dilthey (1833–1911), “world views undertake to resolve the enigma of life” (Dilthey, 1957/1970, p. 107). That is, worldviews represent a person's or a culture's answers to fundamental existential questions (Hodges, 1944), particularly the meaning of life in the face of death (Dilthey, 1957/1970). On the basis of a worldview, “questions of the importance and significance of the universe are decided, and from it are derived life's ideals, its highest good, and supreme principles of conduct” (Dilthey, 1957/1970, pp. 107–108). As we shall see, this is a fair approximation of some later conceptions of worldview.

### *Freud and Weltanschauungen (1933)*

As in many areas, Sigmund Freud prefigured several important issues in the study of worldviews. In contrast to Dilthey, however, Freud scorned the notion that worldviews 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, 1933/1964, p. 158). Freud, then, saw worldviews as concepts that individuals hold consciously, philosophical constructions, “Handbooks to Life” (Freud, 1926/1959,

<sup>1</sup> For example, in terms of the collated model of worldview dimensions described later in this article (see Table 2 and accompanying text), one may take the categorical worldview of humanism, as described in the recently published “Humanist Manifesto III” (“Humanism and Its Aspirations,” 2003), and render it into dimensional terms as follows: optimistic worth of life; materialist ontology; senses, rationality, and science cognition; random cosmos; human moral sources; pleasure and self-transcendence purpose of life; interdependent connection; cooperative interaction; harmony humanity–nature; and agnostic or atheistic stance toward deity.



p. 96) designed to tie the world up into neat and explainable packages, of which even the best are “nothing but attempts to find a substitute for the ancient . . . all-sufficient Church Catechism” (Freud, 1926/1959, p. 96).

Although Freud derided worldviews, he also outlined several important dimensions of worldview, particularly in the last of his *New Introductory Lectures on Psychoanalysis* (Freud, 1933/1964). Freud there defined four basic worldviews: science, religion, philosophy, and art. Although this is an unnecessarily constrained selection, in delineating these worldviews Freud highlighted an important issue. For Freud, epistemology, specifically the method of establishing knowledge, is the crucial dimension that distinguishes among various worldviews. For example, Freud claimed 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, 1933/1964, p. 159).

Freud mentioned other noteworthy aspects of worldview, some only in passing, in the last chapter of the *New Introductory Lectures*. He noted a difference between the belief that one can change something in the world through magic and the belief that direct action alone is efficacious. He pointed out differences between his notion of religious and scientific worldviews in terms of cosmogony and descriptions of the source of personal well-being (i.e., science versus divine sources). Implicit in his distinction between what he termed “religious” and “scientific” worldviews is a distinction in ontology, that is, a distinction between a view of reality in which the spiritual is real and a view of reality that embraces a thoroughgoing ontological materialism.

Figueira (1990) has pointed out that there are several components of a psychoanalytic worldview 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 beliefs about human agency (as seen in the opposed positions of determinism and voluntarism, or free will) represent an important dimension of worldview.

In summary, then, Freud pointed out (either briefly or at length, and either explicitly or implicitly) at least seven aspects or dimensions of worldview. These are as follows: beliefs regarding sources of valid knowledge (i.e., epistemology), the origin of the universe (i.e., cosmogony), sources of well-being, the efficacy of magical versus direct action, the existence of unconscious determinants of thought and behavior, the issue of voluntarist (free will) versus determinist positions regarding human agency, and the matter of spiritual versus materialist ontologies.

*Relation to other conceptions of worldview.* The importance of epistemology is noted in several approaches to worldview 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 to the construct. As discussed later, Royce (1964) considered epistemology to be the crucial defining aspect of different worldviews. Bergin (1980a), Ellis (1980), and Walls (1980) each gave an important place to epistemology in his discussion of humanistic versus theistic worldviews. Epistemology was emphasized by Kahoe (1987) in his discussion of psychotheology (the study of how religious beliefs affect individual psychology and behavior). Two of the six dimensions of worldview outlined by Montgomery, Fine, and James-Myers (1990) in their discussion of Afrocentric worldviews are devoted to epistemology: a dimension they labeled “ontology,” which actually deals with how knowledge may be gained through sensory versus nonsensory means, and a dimension labeled “acquisition of knowledge,” which is concerned with the use of external sources versus intuition for knowledge acquisition.

The importance of spiritualist versus materialist ontologies in distinguishing between worldviews is underscored by the philosophical work of Stace (1960) regarding different outlooks on life accompanying mystical experiences, as described later. Differences in ontology result in different approaches to life and imply different paths in counseling and therapy (Bergin, 1980a, 1980b; Ellis, 1980; Goldfried & Newman, 1986, pp. 47–49; P. S. Richards & Bergin, 1997; Walls, 1980), including those that take an African-centered approach (Graham, 1999).

Positions regarding agency are taken implicitly in many, if not all, psychological theories (Slife & Williams, 1995). Coan (1974, 1979) found that stances regarding agency defined basic worldview differences among both psychologists and nonpsychologists. Before and since Coan's work, questions regarding agency and will have been debated in psychology from many perspectives (e.g., Bakan, 1996; Howard, 1993, 1994; Rychlak, 1979, 2000, 2003; Searle, 2001; Slife & Fisher, 2000; Wegner, 2002; Wegner & Wheatley, 1999), with no widely accepted resolution in sight. (Indeed, it has been claimed that, even in principle, it is impossible to prove any given position about free will as true or false on logical grounds, because different and irreconcilable but unprovable assumptions about the nature of philosophy and worldviews are at the foundation of different ideas about free will [Double, 1996].) Agency is a matter of no small importance in the discipline.

In summary, several of the dimensions that Freud identified as aspects of worldviews happen to be important in others' conceptions of the construct. These dimensions include epistemology, ontology, and agency.

*Critique.* There are several major problems with Freud's approach to worldviews. Of primary importance, he seemed to consider worldviews optional. He explained the appeal of worldviews on psychodynamic grounds, ignoring the notion that without some sort of interpretive system, one cannot make sense of reality. Contemporary, and particularly postmodern, approaches to this matter suggest that worldviews are essential components of the human psychological equipment (e.g., Neimeyer & Mahoney, 1995; Shweder, 1995).

Freud derided at some length those who suggested that different concepts of reality have relative, not absolute, value. Freud referred to such thinkers as "intellectual nihilists" and "anarchist[s]" (Freud, 1933/1964, p. 175), while nowadays we might consider them to be proponents of a hermeneutic approach to reality.

Another criticism of Freud's approach regards his apparent assumption that worldviews 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 worldview to be something that neatly describes the world, a Baedeker to

reality, an ontological catechism. It is more useful, however, to think of a worldview not as a tourist guide or catechism that 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). This is not just a matter of preferences among metaphors. At least to contemporary thinkers, worldviews are altogether more subtle things than Freud considered them to be.

Freud derided the worldview construct, an attitude that implied that he and psychoanalysis have no distinct worldview. However, as Figueira (1990) has noted, Freud's denial of the existence of a psychoanalytic worldview 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, 1933), while in the text he left the term untranslated. The Stracheys never translated the term in the text proper (Freud, 1926/1959, 1933/1964), although in a footnote James Strachey observed that "this word might be translated 'A View of the Universe'" (Freud, 1933/1964, p. 158). Freud claimed that "*Weltanschauung* is . . . a specifically German concept, the translation of which into foreign languages might well raise difficulties" (Freud, 1933/1964, p. 158). One might conjecture 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 worldview construct, in that the construct is inherently postmodern in its implicit position that reality is, at least to some extent, subjectively constructed rather than objectively universal in its totality (Kvale, 1995).

*Jung's alternative psychoanalytic approach to Weltanschauungen.* Some of the difficulties with Freud's notion of worldview seem to be addressed in the work of his erstwhile colleague in psychoanalysis, Carl G. Jung. For Jung, a

worldview is something firmly entrenched in an individual's psychology, largely unconscious and culturally transmitted, an element of personality that is of "cardinal importance" in guiding the person's perceptions and choices (Jung, 1951/1954, pp. 119–120). For Jung, the possession of a worldview 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 worldviews (Jung, 1942/1954, p. 79).

For Jung, one's worldview includes positions on reality that are typically addressed by doctrines of the various religions of the world, for example, regarding fate, the prospect of personal immortality, and so forth. However, these are not dry intellectual positions, nor do they make one's worldview a merely intellectual construction. Worldviews, like religious doctrines, "are emotional experiences. . . . Logical arguments simply bounce off the facts felt and experienced" (Jung, 1942/1954, pp. 81–82). Thus, in Jung's thought, worldviews are an integral part of each individual's psychological makeup and greatly influence volition, affect, cognition, and behavior. Worldviews act outside of consciousness and are part of the warp and woof of personality, rather than being deliberate intellectual constructions.

It must be noted, however, that Jung merely hinted at the details of the structure of worldview. For a concept that he deemed so important, it is unfortunate that he was not more explicit in describing what worldviews consist of.

### *Pepper and World Hypotheses (1942)*

Philosopher Stephen C. Pepper (1942/1970) described a few "root metaphors," based on everyday experience, that people use to explain reality. These metaphors, Pepper wrote, enabled ancient humanity to understand the world and became refined into "world hypotheses" (i.e., worldviews), which in turn provided the fundamental assumptions of various schools of philosophy. Pepper mentioned six world hypotheses: 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 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 a person's act of violence on the basis of some classification (e.g., the person committed an act of violence because she is a person with poor control of her temper).

*Mechanism* uses the metaphor of the machine to understand the world: 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 he was raised in a culturally deprived environment). (Although it can be argued that all of Pepper's world hypotheses reflect a determinist position regarding agency, this is most clearly so in the case of mechanism [see the earlier discussion of Freud and the later discussion of Coan].)

*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 make sense only 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 that might never occur again—the person was the target of a humiliating comment, immediately after failing an important examination, and so forth.

*Organicism* uses the metaphor of the living organism. Organicism seeks to understand reality in terms of complex, integrated, organic processes that result in the unfolding of a larger whole that 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 may explain what caused events in the world.

Pepper's system has been applied to psychoanalytic metapsychology (McGuire, 1979), personality theory (Mancuso, 1977; Sarbin, 1977), psychotherapy integration (Messer, 1992), and other aspects of psychological theory (F. M. Berry, 1984; Overton, 1984). It has been used for research into the philosophical presuppositions of psychological scientists, practitioners, and counseling clients (Johnson, Germer, Efran, & Overton, 1988; Lyddon & Adamson, 1992; Ortiz & Johnson, 1991; Vasco, Garcia-Marques, & Dryden, 1993), academics (Babbage & Ronan, 2000), and the general population in the United States and Asia (Botella & Gallifa, 1995; Caputi & Oades, 2001; Chapell & Takahashi, 1998), as well as in the study of gerontology (Kramer, Kahlbaugh, & Goldston, 1992), gender (Kramer & Melchior, 1990), and health psychology (Kagee & Dixon, 2000). However, an indiscriminate or uncritical application of Pepper's approach in psychology has been the target of criticism (M. B. Smith, 1991).

Despite the utility of this model for a variety of subfields in psychology, the theory is of limited scope. That is, Pepper described worldviews in terms of beliefs about causation, ways in which people answer the question "What caused this event?" Although an important issue in itself, this single concept hardly seems sufficient to carry the weight of an individual's entire approach to reality.

### *Kluckhohn and Value Orientations (1950)*

Anthropologist Florence Rockwood Kluckhohn (1950; Kluckhohn & Strodtbeck, 1961/1973) provided an intricate model of the worldview 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 worldview is defined by the answers given to questions in six basic areas or "orientations" of human thought, as follows.

*Human nature orientation.* What is the character of innate human nature? Kluckhohn postulated a 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 on the human nature orientation, a sort of subdimension that she did

not label separately; "mutability orientation" is my own designation.)

*"Man-nature" orientation.* What is the relation of human beings to nature? That is, do people live in subjugation to nature, or should they attempt to live 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 the past (e.g., upholding tradition), the present (e.g., living in the moment), or the future (e.g., planning for one's future welfare)?

*Activity orientation.* What is the preferred modality of human activity? That is, does the person prefer "being" activities that spontaneously express personality, "being-in-becoming" activities that aim at the development of an integrated self, or "doing" activities that focus on measurable external achievement?

*Relational orientation.* What is the preferred modality of interpersonal relationship? That is, does the person prefer hierarchical forms of relationship, "collateral" forms that emphasize collegiality and consensus, or individualism?

Kluckhohn's model has been widely used, especially in multicultural counseling (Ibrahim et al., 2001; Sue & Sue, 1999; Treviño, 1996) and assessment (Dana, 1993). This model has also been recommended in discussions of general or "generic" counseling and therapy (Chapman, 1981; Ibrahim, 1991). A substantial research literature has addressed the model (Carter, 1991; Ibrahim et al., 2001).

*Relation to other conceptions of worldview.* Some of the dimensions of the Kluckhohn model appear individually in other investigators' models of worldview, although it seems that these investigators arrived at the same concepts independently. This fact emphasizes the importance of these dimensions for a comprehensive model of worldview.

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, which seems similar to Kluckhohn's suborientation regarding the mutability of human nature.



The so-called man–nature orientation is reflected in the dimensions used by J. A. Baldwin and Hopkins (1990) to distinguish between African American and European American worldviews (see also Graham, 1999). 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 multicultural worldviews 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 akin to the construct of "anthropocentrism," which has been proposed as a way to understand attitudes regarding the relationship of human beings to nature (Chandler & Dreger, 1993; Snodgrass & Gates, 1998).

The activity orientation expresses distinctions that date back perhaps to the ancient Greek contrast between the Apollonian and Dionysian approaches to life (Kluckhohn & Strodtbeck, 1961/1973, p. 15). This orientation is reflected in a "sense of worth" dimension that has been used to distinguish between "optimal Afrocentric" and "suboptimal" worldviews (Montgomery et al., 1990). The different options within this orientation (and those within the time orientation) are echoed in the distinction raised by Coan (1974, 1979) regarding productiveness versus spontaneity; the former seems to reflect a "doing–future" orientation, while the latter seems to represent a "being–present" orientation.

The hierarchical-versus-lateral aspect of 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). The orientation emerged clearly in the extensive empirical research into multicultural worldviews 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. Differences between ethnic minority populations and majority populations in the United States in terms of relational orientation, with consequences for

counseling and psychotherapy, have been noted regarding African Americans (Carter & Helms, 1987), Cuban immigrants (Szapocznik, Scopetta, Aranalde, & Kurtines, 1978), Korean immigrants (Donnelly, 1992), Puerto Ricans (Inclan, 1985), and Southeast Asian refugees (Gerber, 1994).

*Critique.* Kluckhohn described mutability as a variation within the model's human nature orientation, a sort of subdimension that Kluckhohn did not name separately. This presents a logical problem, because human mutability spans every aspect of personality and behavior, not just inherent moral orientation. For some reason, the subdimension has been dropped, apparently inadvertently, from almost all current descriptions of Kluckhohn's model (cf. Table I:1 in Kluckhohn & Strodtbeck, 1961/1973, p. 12, with descriptions of Kluckhohn's model in contemporary textbooks). This is so despite the claim that this dimension is "obviously critical" to counseling and psychotherapy (Triandis, 1985, p. 24).

Another problematic aspect of the Kluckhohn model is that, in two instances, it mistakenly combines two conceptually separate dimensions into one confused "value orientation." This is the case with the relational orientation and the activity orientation, as described next.

*The relational orientation: A confusion of relation to group (individualism–collectivism) and relation to authority.* Kluckhohn's relational orientation reflects "the definition of man's relation to other men" [*sic*] (Kluckhohn & Strodtbeck, 1961/1973, p. 17). A careful analysis of Kluckhohn's description indicates that there are actually two separate matters at issue here.

One of these matters involves relating to one's reference group in terms of goal priority. That is, when there is a 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, or the individual's? Another way of thinking about this is 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* [*italics added*] extended relationships" (Kluckhohn & Strodtbeck, 1961/1973, p. 18), that is, relationships in which 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, a position of which the English aristocracy (with its detailed 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 any one of the four possible combinations of relating to authority and relating to one's group of reference, as illustrated by examples given by Triandis and Gelfand (1998): lateral relation to authority and individualist relation to group (e.g., social democracy, as found in Australia), linear relation to authority and individualist relation to group (e.g., market economies, such as the United States), lateral relation to authority and collectivist relation to group (e.g., the Israeli kibbutz), and linear relation to authority and collectivist relation to group (e.g., Chinese communism). Thus, the combining of these two dimensions into one value orientation, as is done in Kluckhohn's model, is not justified.

Kluckhohn's relational orientation may thus be restructured into two dimensions. In this conceptualization, preference for either a linear or a lateral authority structure may be referred to as *relation to authority*. This expresses the horizontal-vertical distinction, which has been the focus of some attention in multicultural research (e.g., Kimmelmeier et al., 2003; Triandis, 1996; Triandis & Gelfand, 1998).

The preference for individual or group goal priority may be referred to as *relation to group*. This reflects the individualism-collectivism distinction, which has been the focus of a great deal of research in cross-cultural psychology since 1980 (Kagitçibasi, 1997; Kimmelmeier et al., 2003; Triandis, 1994, 1995). Triandis considered this dimension crucial to the understanding of a culture or its people (Triandis, 1996; Triandis, Chen, & Chan, 1998; Triandis & Gelfand, 1998). Triandis designated individualism-collectivism as "the single most important dimension of cultural difference in social behavior" (cited in Niles, 1998, p. 316). The shift from collectivist to individualist ethics, occurring now in many cultures worldwide, may be 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, 1994; cf. Schwartz & Sagiv, 1995). Some researchers of values have found that this distinction differentiates values for samples in 20 countries from every inhabited continent; that is, within the minds of individuals, certain values 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). Hofstede (1984) found this distinction apparent in a study spanning 40 countries. Differences between European and Asian cultures in terms of individualism-collectivism have been attributed to differences in socioeconomic factors (Ji, Peng, & Nisbett, 2000) and religious factors (Sampson, 2000). It should be noted that there are also different "flavors" of individualism and of collectivism, as illustrated by a comparison of China and Japan (Dien, 1999).

Triandis suggested that the individualist-collectivist distinction is an aspect of the self-concept that is highly relevant to counseling and therapy (Triandis, 1985, 1989). 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") has been recommended for emphasis in the multicultural training and supervision of counselors (M. T. Brown & Landrum-Brown, 1995).

Individualism-collectivism has also appeared in studies that are not specifically multicultural in focus. It has proven useful in research investigating romantic love (Dion & Dion, 1991), groups in the workplace (Driskell & Salas, 1992; Eby & Dobbins, 1997; La Greca, 1999), and athletic teams (McCutcheon & Ashe, 1999). It is noteworthy that, in research on hierarchical relationships between human goals, the broadest distinction is that between intrapersonal and interpersonal goals, which seems to parallel the individualism-collectivism dimension (Chulef, Read, & Walsh, 2001).

All of this research, theory, and clinical reflection suggests that the relation to group and relation to authority distinctions each should have a place within a comprehensive model of worldview dimensions.

*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 two matters at issue in the activity orientation. One is the *direction* of activity; that is, should activity be directed outward (toward the social and physical environment) or inward (toward the interior world of affect and cognition)? Another matter is the nature of the *satisfaction* sought through activity: Should satisfaction be sought in movement (e.g., improvement of personality or 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, one may conceive of different individuals centering themselves at any one 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.

Kluckhohn's approach to worldview is the most articulated of any of the theories summarized in this review. The model lacks some important dimensions (e.g., epistemology, ontology, and meaning of life). However, the dimensions that find a place in Kluckhohn's

model are important in any discussion of worldviews.

### *Kelly and Personal Constructs (1955)*

Formulating his views beginning in the 1930s, George A. Kelly (1955) was the first academic psychologist to publish extensively about what I have been referring to as worldviews. Kelly described an approach to person-ality 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 constructs as learning, motivation, emotion, cognition, or ego (Kelly, 1963, p. xi), Kelly focused on the person as a 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). In this endeavor, individuals use certain patterns, "personal constructs," to construe the world and represent the universe. Personal constructs correspond to what I here call worldviews.

Kelly disdained to identify specific worldview dimensions used across people, claiming that "no one has yet proved himself wise enough to propound a universal system of constructs" (Kelly, 1955, p. 10). However, he provided a set of high-level theoretical propositions regarding the function of personal constructs. These propositions consist of a fundamental postulate and 11 corollaries (Kelly, 1955, pp. 46–104). Some of these are offered next, with my restatements of Kelly in explicit worldview terms enclosed in parentheses.

- "Fundamental Postulate: A person's processes are psychologically channelized by the ways in which he anticipates events" (Kelly, 1955, pp. 46, 103). (Psychological processes [e.g., cognition and judgment] are strongly influenced by a person's beliefs about what will—or can—happen.)
- "Individuality Corollary: Persons differ from each other in their constructions of events" (Kelly, 1955, pp. 55, 103). (Different people have different worldviews that result in different understandings of reality.)
- "Dichotomy Corollary: A person's construction system is composed of a finite

number of dichotomous constructs” (Kelly, 1955, pp. 59, 103). (A worldview is composed of a limited number of bipolar dimensions.)

Kelly’s psychology of personal constructs has been developed by subsequent theorists (e.g., Bannister & Fransella, 1986; Neimeyer, 1985) and continues to inform 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 (e.g., Neimeyer & Mahoney, 1995), balancing the influence of other modern and postmodern approaches (Raskin, 2001).

Kelly’s central insights have proven to be highly useful in clinical settings. However, as a theoretical statement regarding worldview, Kelly’s formulations leave something to be desired. Kelly did not specify much in the way of specific worldview dimensions. Preferring an idiographic approach to a nomothetic one, Kelly seems not to have wished to emphasize that the same worldview dimensions might show up across individuals. For that matter, Kelly seemed to ignore the notion that worldviews 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 worldviews. In addition, Kelly’s theoretical contribution is limited by its avoidance of specific reference to such recognized psychological constructs as cognition, emotion, and so forth.

Kelly’s postulates and corollaries serve as a prolegomena to a formal theory of worldview. His major contribution to the study of worldviews is his recognition that human beings actively engage their environments through the instrumentality of constructed worldviews to meet self-defined telic ends.

### *Stace and the Mystical Worldview (1960)*

This section of the review is unusual in that it deals with a description of a particular worldview, rather than with descriptions of several. However, consideration of the mystical worldview suggests several important dimensions that play a part in the description of worldviews in general.

W. T. Stace (1960), a philosopher specializing in religion, defined several characteristics of

the mystical experience. Interestingly enough, although Stace is not cited in the work of Abraham Maslow, Maslow’s (1968) description of empirical reports of cognitive states characteristic of peak experiences bears a striking resemblance to some of the characteristics of mystical cognition that Stace described. Some of these characteristics define ontological statements about the nature of reality, as described subsequently (in the following, the labels of the qualities are those used by Hood, 1975, in operationalizing Stace’s theory).

*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). As a statement of worldview, this is an ontological statement that the world is not many things, but is rather One thing, where all apparently different things are in fact deeply interconnected and where cognitive contradictions are transcended.

*The inner subjective quality.* The world itself is seen as a living Being; things 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. 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). In terms of a worldview, 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.

Psychologists concerned with Afrocentric or Black psychology have been particularly sensitive to the importance of the unity aspect of the mystical worldview (Graham, 1999), confirming the importance of this dimension for a more general model of worldview. Nobles (1991) identified a “notion of unity,” similar to the unity dimension mentioned earlier, as an essen-



tial element of African philosophy and worldview. The unity dimension is also 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 the six dimensions used to contrast “optimal Afrocentric” versus “sub-optimal” world views by Montgomery et al. (1990): the so-called “world view” dimension, in which the world is seen either 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 has been and continues to be upheld in many indigenous cultures. Mysticism is an important element of the worldview of indigenous cultures around the world, as evidenced in the literature on shamanism (Halifax, 1979; Krippner, 2002; Walsh, 1990, 2001).

Accounts in both the professional literature and the popular press suggest that there is some connection between a mystical perspective on the world and the control of stress and chronic pain (Lukoff, Turner, & Lu, 1992; Moyers, 1993). Thus, from the viewpoint of health psychology alone, it is important to give some place in a scheme of worldview for dimensions that distinguish the mystical worldview. This importance is further underscored by the fact that the experiential study of mysticism is part of the foundation of transpersonal psychology and psychotherapy (Boorstein, 1996; Scotton, Chinen, & Battista, 1996; Walsh & Vaughan, 1993).

In summary, the scholarly study of mysticism defines at least three dimensions of worldview: beliefs regarding the underlying unity of reality, the existence of a conscious nature, and the possibility of a truly ego-transcendent consciousness. Implicit in the mystical 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 for an ontologically real spiritual dimension to reality; this would reflect the ontology dimension mentioned earlier in relation to Freud’s notion of worldview.

### *Royce’s Four Approaches to Knowledge of Reality (1964)*

Joseph R. Royce (1964; Royce, Coward, Egan, Kessel, & Mos, 1978), a psychologist, defined four epistemic approaches to reality, each with a different criterion for determining what is truth. Depending on the truth criterion that is accepted, different images of reality, or worldviews, will be held by different individuals. The four approaches to reality that Royce recognized are authoritarianism, rationalism, empiricism, and intuitionism.

*Authoritarianism.* This reflects the position that something is true if it is endorsed by some person or doctrine accepted previously as authoritative. Royce related 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 “authoritarian” has in current American culture, one should 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 worldviews) involve the use of unproven and unprovable assumptions that are arbitrary or authoritarian in nature. Royce also noted that the authoritarian approach is unavoidable because personal verification of all verifiable truth claims is impractical.

*Rationalism.* This approach uses the standard of logic. That is, nothing is true if it is illogical. Royce related rationalism to the thinking function.

*Empiricism.* This approach takes the position that reality is known through sensory experience. “If one can’t see it, smell it, touch it, or hear it, it does not exist” (Royce, 1964, p. 13). Royce related empiricism to the sensing function.

*Intuitionism.* Intuitionism takes the position that reality is known “by immediate or obvious apprehension” (Royce, 1964, p. 14). Royce believed that intuition is a result of the unconscious but immediate perception of gestalts in the midst of complex stimulus configurations. Royce related intuitionism to the feeling function.

The importance of epistemology within a comprehensive model of worldview has been

established not only by Royce but by Freud and others. For example, epistemology is one dimension in a sophisticated two-dimensional model of worldview devised, independently of Royce, by M. E. Miller and West (1993).

One critique to be made of Royce's model of epistemology involves its limited range of choice in the paths that a person may take to knowledge. In addition to the paths of empiricism, rationalism, intuition, and authority, one might add the paths of revelation, divination, and nihilism (i.e., truth is unreachable or non-existent). Freud (1933/1964) considered these paths to be deficient, but he and others (e.g., Bergin, 1980a; Ellis, 1980; Walls, 1980) recognized that these approaches are taken by many individuals as they confront the epistemological challenges of reality.

#### *Wrightsmen's Philosophies of Human Nature (1964)*

Lawrence S. Wrightsmen (1964, 1992) has devoted much of his research in psychology to the assessment of worldview assumptions regarding human nature. The dimensions of his model are as follows (adapted from Wrightsmen, 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 position holds that people can control their outcomes and that they understand themselves. The latter reflects the belief that people lack self-determination and act irrationally, without self-understanding.

*Altruism versus selfishness.* "Altruism" is the position that people are altruistic, unselfish, and sincerely interested in other people. "Selfishness" reflects the belief that people are self-centered and essentially self-aggrandizing.

*Independence versus conformity to group pressures.* "Independence" reflects the belief that people can maintain beliefs against group pressures to the contrary. "Conformity" holds that people give in to group and societal pressures.

*Complexity versus simplicity.* "Complexity" reflects the belief that people are complex and hard to understand. "Simplicity" reflects the belief that people are simple and easy to understand.

*Variability versus similarity.* "Variability" reflects the beliefs that individuals are different from one another in personality and interests and that people can change over time. "Similarity" reflects the beliefs that people are similar in interests and that they do not change over time (cf. Kluckhohn's earlier-described mutability suborientation).

Wrightsmen's approach to worldview 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 worldview model. These six dimensions relate to beliefs regarding human trustworthiness, altruism, strength of will and rationality, independence, variability, and complexity.

#### *Lerner and Belief in a "Just World" (1965)*

Building on the work of 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" (Lerner & Miller, 1978, p. 1030). Lerner considered 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). This dimension has generated much theory and research (e.g., Begue & Fumey, 2000; Furnham, 1993; Furnham & Procter, 1989; G.-Y. Hong, 1997; M. O. Hunt, 2000), suggesting that beliefs regarding the justness of the world are an important aspect of a comprehensive model of worldview. 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, one that we might call "world nature." In the same way that Kluckhohn's human nature dimension includes such options as "good," "evil," "neutral," and "mixed," so too one might conceive of a world nature dimension for which "just" is one option. Furnham and Procter (1989) suggested three options: "just," "unjust," and "random."

Beyond this, these authors indicated that each of these belief options should be considered independently for each of three different “spheres of control”: the personal, the interpersonal, and the political.

Belief in a just world is a robust construct that has been associated with several social and cultural variables (Begue & Fumey, 2000; Furnham, 1993; M. O. Hunt, 2000) and even with recovery from myocardial infarction (Agrawal & Dalal, 1993). It appears that belief in a benevolent world is an aspect of worldview that is strongly affected by trauma (Janoff-Bulman, 1989, 1992). Despite this, beliefs in a just world (or, more precisely, beliefs about the justness of the world) involve only a single dimension, albeit an important one, within a comprehensive model of worldview.

### *Maslow and World Outlooks (1970)*

Psychologist Abraham H. Maslow may be best known for his theory of human motivation. It is rarely noted, however, that there is a theory of worldviews embedded within Maslow’s work, a theory that explicitly surfaces in discussions of the meaning of life as this is construed by individuals at various stages of Maslow’s motivational hierarchy. This linkage of worldview, motivation, and meaning is a significant addition to the discussion of worldview.

According to Maslow’s theory, human life exhibits a motivational hierarchy in which more basic, foundational needs are “prepotent”; that is, these needs must be successfully addressed (and thus, in a sense, transcended) before needs higher up on the hierarchy can 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). Chulef et al. (2001) found broad support for Maslow’s theory in their research into the hierarchical structure underlying human goals.

These stages are well known but do not represent the entire Maslovian hierarchy (Koltko-Rivera, 1998). Toward the end of his life, Maslow wrote of “individuals who have transcended self-actualization” (Maslow, 1969/1971, p. 282) and who experience a strong, undeniable motive toward not self-actualization but self-transcendence (Maslow, 1969). That is,

the individual identifies “self” with something greater than the purely individual personality and seeks communion with the transcendent, with the Divine, through certain kinds of “peak experiences,” revelation, and transpersonal or mystical experience (Maslow, 1970b). Maslow noted that each stage of the motivational hierarchy can be characterized by a distinctive worldview:

[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* [italics added]. 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 of the stages on the motivational hierarchy. Essentially, these stages define worldviews 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.

Maslow’s is one of the few worldview theories to address the meaning of life. The issue of life’s meaning would seem to be an important part of the worldview of an individual, religious group, 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 in both the theoretical and research literatures as a central issue for individual psychology and well-being (Baumeister, 1991; Debats, 1999; Moomal, 1999). The search for life meaning is a central concern in existential psychotherapy (Yalom, 1980) and logotherapy (Frankl, 1946/1967, 1969). Aside from general investigations of meaning, only a few theorists have focused explicitly on worldview in rela-

tion to life purpose (e.g., semiotician Charles W. Morris, 1956/1973). One such theorist was Robert de Ropp.

Writing contemporaneously with Maslow, and from a related stance within humanistic and transpersonal psychology, de Ropp (1968/1989) also focused on how worldviews define meanings of life. Although de Ropp's theory is less well known, it is in some ways more detailed than Maslow's regarding the meaning of life. In it, de Ropp described a series of "games" that define life meanings.

Roughly corresponding to Maslow's esteem needs, de Ropp described "games" in which the meaning of life is, respectively, the search for wealth, fame, or victory. About at the level of Maslow's belongingness–love needs, de Ropp placed a "householder game" whose aim is to raise a family. Bridging Maslow's self-actualization and self-transcendence needs, de Ropp described games whose pursuits are, respectively, beauty, knowledge, salvation, and awakening (i.e., spiritual enlightenment). De Ropp also described a nihilistic or aimless approach to life.

The work of de Ropp underscores the value of Maslow's insight into the importance of life meaning as an element of worldview. In summary, it is clear that beliefs about meaning or purpose of life would represent an essential dimension of a comprehensive model of worldview.

#### *Coan's "Basic Assumptions" Model (1974)*

In an investigation of the worldviews of both psychologists and members of the general population, Richard W. Coan drew on a heterogeneous variety of sources to define several aspects of the worldview construct. These sources included a priori philosophical considerations and, in particular, the factor analysis of scale items that Coan had developed. Coan's scheme has proven useful in the study of different types of professional psychologists, such as behavioral versus nonbehavioral psychologists (Krasner & Houts, 1984) and feminist psychologists (Ricketts, 1989). The essential aspects of worldview uncovered by Coan's work are as follows (adapted from Coan, 1979, pp. 31, 49–50, and Coan, 1974, pp. 116–117).

*Voluntarism.* This is the belief that volition or will is a central feature in mental processes and constitutes an independent influence on behavior.

*Determinism.* This reflects 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 belief reflects the viewpoint that telic ends or purposes have a causal influence on behavior.

*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 and a nontheistic viewpoint.

*Productiveness versus spontaneity.* Productiveness involves an emphasis on the constructive use 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 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 deterioration or stagnation. Because change means deterioration, someone working from the position of resignation favors preservation of the status quo or emphasizing the ways of the past.

Coan does not present a model or theory of worldview so much as he presents an aggregate of dimensions that are relevant to the study of worldview. One appealing aspect of Coan's ag-



gregation 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 those of other models. Freud's notion of worldview (summarized earlier) is most easily related to Coan's dimensions of voluntarism, determinism, biological and environmental determinism, and emphasis on unconscious versus conscious motivation. By implication, Coan's dimensions of finalism and religion are also related to Freud's notion of worldview, if only negatively: A truly telic position is unthinkable from a strictly Freudian standpoint (wherein behavior is overdetermined, typically by unconscious cognitive processes), and Freud is famous for having derogated theistic religion.

The time and activity orientations of Kluckhohn's model are easily related to Coan's dimension of productiveness versus spontaneity. Pepper's sense of mechanism is at least analogous to Coan's dimension thereof. In addition, one can see Coan's dimensions regarding beliefs about biological and environmental determinism at work in discussions of the revival of social Darwinism (e.g., A. W. Clark, Trahair, & Graetz, 1989; Degler, 1991), and particularly in discussions of evolutionary psychology and the biological bases of human nature (e.g., Badcock, 2000; Buss, 1999; W. R. Clark & Grunstein, 2000; Pinker, 2002; H. Rose & Rose, 2000). The fact that some of Coan's dimensions have applicability in theories as disparate as psychoanalysis and evolutionary psychology suggests that these dimensions are appropriate to include within a comprehensive model of worldview.

### *Sue's Fourfold Loci Model (1978)*

Psychologist Derald W. Sue (1978a, 1978b; Sue & Sue, 1999) has articulated a model of the worldview construct built on two dimensions: locus of control and locus of responsibility. Locus of control is defined for Sue as it was for Rotter, who originally described 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 unpre-

dictable 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)

Whereas locus of control refers to the perceived control of contingencies, locus of responsibility, as defined by Sue, 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. (Sue & Sue, 1999, p. 171)

Sue (1978a; Sue & Sue, 1999) defined four distinct, clinically relevant worldviews: internal control–internal responsibility, internal control–external responsibility, external control–internal responsibility, and external control–external responsibility.

Locus of responsibility focuses on 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 external locus of responsibility is actually a special case of external 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 construct that 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. I would contend that external locus of control is best redefined to refer only to luck, destiny, and chance (three highly related constructs), leaving the logically distinct territory of societal forces as the domain of locus of responsibility.

Sue's theory is concise and parsimonious. These dimensions have been identified as among the beliefs most affected by the experience of trauma (Janoff-Bulman, 1992). How-

ever, these dimensions leave a great deal of conceptual territory uncovered. This may be why Sue has also paid much attention to the Kluckhohn model in recent years (e.g., cf. Sue, 1981, with Sue & Sue, 1999).

### *Worldview and Terror Management Theory (1986)*

This portion of the review is distinct from other portions in that it does not deal either with specific worldview dimensions or with types of worldviews. Rather, it focuses on a theory that speaks to another issue: Why do we have worldviews at all?

A substantial body of worldview-related research has accumulated in the social psychological literature in connection with terror management theory (Greenberg, Pyszczynski, & Solomon, 1997; Pyszczynski, Greenberg, & Solomon, 1999; Solomon, Greenberg, & Pyszczynski, 1991). Briefly, according to terror management theory, worldviews have the cultural function of assuaging existential terror; that is, members of a given culture adopt that culture's worldview (however unconsciously) to gain a sense of meaning, permanence, and security in the face of existential meaninglessness, life's impermanence, and the inevitable annihilation of our bodies through human mortality.

A substantial body of research suggests that when people are reminded of their mortality, they tend to increase the strength with which they defend their culturally supported worldviews (reviewed in Greenberg et al., 1997; see also Greenberg, Arndt, Schimel, Pyszczynski, & Solomon, 2001; Simon, Arndt, Greenberg, Pyszczynski, & Solomon, 1998). Other research suggests that priming the mortality construct increases accessibility of worldview beliefs (Arndt, Greenberg, & Cook, 2002). Threats to worldview may even be an important impetus for hate crimes; individuals who feel that their worldviews are threatened by the presence of culturally different others may be motivated to commit violence against those others (Lieberman, Arndt, Personius, & Cook, 2001; see also Solomon, Greenberg, & Pyszczynski, 2000).

As impressive as this body of research is, it provides only limited support to the foundational notion underlying terror management theory, that is, what the theory states about the function of worldview. There is certainly much

research (just cited) supporting the idea that threats to mortality result in an increase in people's efforts to defend their worldview. However, it is a serious leap of logic to say that therefore worldviews are formed expressly to guard against existential despair. This would seem to be at least analogous, if not identical, to the logical error known as the fallacy of asserting the consequent (Bell & Staines, 1979, p. 35).<sup>2</sup>

It would be at least as logical to take a more generally social constructionist position (e.g., Berger & Luckmann, 1966/1967): Reality is not interpretable "as is," without some hermeneutic framework; culturally transmitted worldviews give a sense of coherence to all aspects of life and reality. Thus, worldviews have an even broader existential significance than they would have as merely a response to mortality; existence itself is uninterpretable without a worldview.

From this perspective (which one might call "reality management theory"), I would predict that people will defend their worldviews whenever they are in a state of insecurity (i.e., not only in the face of a mortality threat but also in states of disappointment, economic instability, emotional distress, and so forth). In addition, I would predict that people will defend their worldview when the exclusivity of that worldview is threatened by the presence of others with different worldviews, whether or not mortality is threatened. Further research, and reinterpretation of previous research, will be useful in testing these propositions.

<sup>2</sup> Arguments that exhibit the fallacy of asserting the consequent take the following form: "We propose that if statement *A* is true, then there will be the consequence *B*; because we have found *B* to be the case, this is evidence for the truth of statement *A*." This is easily seen to be false if we take the case in which *A* is the statement "Unicorns live near the Pond of Central Park" and *B* is the consequence "There are animal droppings around the Pond" (adapted from Leavitt, 2001, p. 232). The argument posed by some of those who propound terror management theory seems similar: *A* is the statement "The function of worldviews is to manage the terror of mortality," and *B* is the consequence "Reminding people of their mortality (i.e., increasing mortality salience) will result in people defending their worldviews." In each case, there is ample empirical evidence for statement *B*; however, in each case, it is logically weak to use statement *B* as evidence for the truth of statement *A*.

### *Other 20th-Century Approaches*

The preceding review suffers from inevitable constraints on available space. In a more extended, book-length treatment of worldview, it will be particularly worthwhile to consider in detail the massive literatures of early-20th-century existentialism and phenomenology as they relate to worldview, especially given the degree to which contemporary humanistic and social constructionist approaches in psychology are built upon existentialist and phenomenological bases (Moss, 2001). For example, note the existentialist concept that human beings must create meaning in a morally ambiguous world; we are each “condemned to be free” (Sartre, 1943/1966, p. 537) and to seek to structure purpose and telic ends, in light of our understanding of our context—an understanding that is surely formed by our worldviews. Thus, the notion that worldviews structure our concepts and self-devised ends is at least implicit in existentialist approaches to philosophy and psychology. Certainly this sense of the worldview construct is compatible with contemporary humanistic approaches in psychology, which hold that “the ambiguity of our existence makes it essential that humans find ways in which to organize the little we know and understand” into a framework to guide cognition and behavior (Kottler & Hazler, 2001, p. 361).

Existentialism is drenched in the concept that intentionality is a foundation of human behavior. This is an interesting position to take, given the inherent dispute between the positions of Freud and others, noted earlier, regarding human volition. The notion of human activity as the encounter of intersubjectivities with differing worldviews (more elegantly phrased as “I-Thou” by Martin Buber, 1923/1970) is also a hallmark of existentialist approaches. In the investigation of how worldviews are formed, I expect that qualitative approaches, particularly of the phenomenological variety, will be especially helpful.

To focus henceforth on the late 20th century, it is noteworthy that some theorists touched upon worldview while engaged in other fields of study. Of these, especially prominent are gender theorists, several of whom have written most cogently about differences in male and female views on moral reasoning, moral education, and

communication (Gilligan, 1982; Noddings, 1984; Tannen, 1990).

As mentioned earlier, this review has focused on theories that spoke most clearly to the issue of what dimensions are pertinent to study regarding the structure of worldviews. However, much is to be learned from categorical models of worldview, which of necessity I touch on only briefly here.

The best-known categorical approach to worldviews is probably that of Sire (1997). Writing for the general public, Sire outlined the most cogent points of (and, in most cases, his disagreements with) a number of distinct viewpoints, including Christian theism, deism, naturalism, nihilism, existentialism, pantheistic monism, postmodernism, and the “new age” worldview (see also Kahoe, 1987, and D. Smith, 1980, regarding some of these worldviews; cf. Tindall, 1980). Written within the domain of organizational development, another model of some popularity is Williams’s (2001) “lenses” model, which describes what amount to be 10 “mini-worldviews,” specifically limited to the matter of how to view the multicultural environment (e.g., as an “assimilationist,” as “colorblind,” etc.).

Messer (1992, 2000) has described a clinically relevant categorical model of worldviews built on the tragic, ironic, and comedic modes of literary analysis described by Frye (1957). M. E. Miller and West (1993) devised a two-dimensional grid based on attitudes about epistemology and teleology that yields nine different worldviews; these have been shown to be related to occupational choice. It is too early yet to see what will be the ultimate utility of these two models.

A categorical model of some importance, especially at present to European researchers, is that used by the World View Project, a joint effort 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 worldviews (themselves categorized as religious, nonreligious, or quasi-religious–occult worldviews) using the World View Inventory (Holm & Björkqvist, 1996, Appendix A). A substantial body of research has begun to accumulate under this model, and it is likely to attract much attention from researchers using categorical approaches.

Another noteworthy categorical model is provided by transpersonal theorist Ken Wilber. Each stage of Wilber's model of consciousness development has a characteristic worldview constructed around differing notions of personal and group identity (Wilber, 1999). The interest shown in Wilber's formulations by a wide variety of transpersonal psychologists (Walsh & Vaughan, 1993) suggests that this theory will be important in future formulations of the worldview construct.

### Toward a Model and Theory of Worldview: Preliminary Considerations

There have been some attempts in recent years to cast the worldview construct into formal theoretical terms. In describing an approach to facilitating client change during cross-cultural counseling, Treviño (1996) outlined a theory in which worldview relates to behavior and its change. Liu (2001, 2002) described a worldview theory that revolves around social class as an organizing principle for perception and behavior. Although these are promising beginnings, these theories are very limited, Treviño's by the broadness of the strokes with which it is drawn, Liu's by a tight focus on the domain of socioeconomic status and social class.

There is no formal general theory of worldview currently available. This lack is keenly felt in certain quarters, prompting Ibrahim et al. (2001, p. 445), for example, to state that "the primary issue facing the profession [of multicultural counseling] is to arrive at a cohesive understanding of worldview and a standard definition that can be used in professional communications and when doing psychotherapy and assessment," to which one might add "and when doing research in personality, social psychology, and all other subfields of psychology." There are several questions that a "cohesive understanding" should address.

What sort of construct is "worldview"? Is "worldview" an alias for another accepted personality or cognitive structure, such as the cognitive schema? Or is worldview a separate personality or cognitive structure of its own, having the same conceptual status as, for example, "ego," "memory," or "self-concept"?

How are worldviews structured? Should we understand worldview as an undifferentiated collection of dimensions, or is there some sort

of underlying superstructure to worldview dimensions? Do we really need all of the dimensions mentioned in the earlier review?

Worldview theorists generally agree that worldviews affect behavior, but how precisely does this happen? Where do worldviews "fit in" among the various cognitive and personality structures and functions? Do worldviews affect basic processes of concept formation? Perception? Sensation? Or are worldviews farther "downstream" in the processes of cognition? Do worldviews determine personality types or traits, is the reverse the case, are they co-constitutive, or do worldviews and personality structures function essentially independently, albeit in interaction?

Finally, if we accept the axiom that good theory suggests good research, we must ask the following: Where does one *go* with worldview? What research is worth doing with the worldview construct?

The remainder of this article addresses these issues. Specifically, I consider four topics: (a) evidence and arguments regarding worldview as a justifiable psychological construct, (b) a model of the dimensions of worldview that incorporates material from several previous models, (c) a formal theory of worldview function within individual psychology, and (d) a worldview research agenda for personality and social psychology.

### Is "Worldview" Justifiable as a Psychological Construct?

Psychology is reportedly glutted with redundant constructs (Staats, 1999). Thus, we should consider evidence regarding the need to extend psychological theory with a formal worldview construct. There seem to be two parts to justifying a proposed psychological construct. First, there must be evidence for the existence of the phenomena in which the proposed construct is said to be manifest. Second, it must be shown that these phenomena are not better addressed by an already-existing construct or constructs. Each of these issues is addressed in the sections to follow.

#### *Lines of Evidence: Phenomena Manifesting the Worldview Construct*

The point at issue here is not the existence of worldviews per se. Of that there is no doubt;



authors in the professional literature (e.g., Kluckhohn & Strodtbeck, 1961/1973) and the popular literature (e.g., Sire, 1997) have clearly defined different sets of assumptions about reality. Our question is, Are worldviews causally powerful in shaping affect, cognition, or behavior? I see four lines of evidence concerning these issues. These lines of evidence involve cultural differences in cognition, ethnocultural differences in values, the explicitly labeled worldview research literature, and research on the differential effects of religious belief and experience.

*Cultural differences in cognition.* A large research literature attests to the notion that culture is antecedent to behavior, that is, that culture forms cognition, affect, and behavior (for reviews, see Lonner & Adamopoulos, 1997; Mishra, 1997; Schliemann, Carraher, & Ceci, 1997; see also Y.-Y. Hong, Morris, Chiu, & Benet-Martinez, 2000). For example, an extensive body of research shows that research participants in East Asia exhibit “holistic” cognition, characterized by paying a great deal of attention to the entire stimulus field and by the use of dialectical reasoning; participants in the United States, on the other hand, exhibit “analytic” cognition, characterized by paying attention to isolated detail and by the use of Aristotelian-type logic (Ji et al., 2000; Nisbett, 2003; Nisbett, Peng, Choi, & Norenzayan, 2001; Peng & Nisbett, 1999). This suggests that something about culture forms cognition; this something may include culturally transmitted worldviews.

Some authors have explained these findings in what are essentially worldview terms. For example, Nisbett et al. (2001) outlined a process in which “social organization” (i.e., culture) directs attention, thus influencing *metaphysics*, a term these authors used to “convey concerns with very general notions about the nature of causality and reality” (p. 291). “Metaphysics,” as used by these authors, thus corresponds to an aspect of what I label here as worldview. These authors described how this aspect of worldview “guides tacit epistemology, that is, beliefs about what it is important to know and how knowledge can be obtained” (pp. 291–292), yet another aspect of what I label as worldview. Then, as they put it, “epistemology dictates the development and application of some cognitive processes at the expense of others” (p. 292), suggesting that worldview occupies an upstream

position in cognition relative to other subprocesses or components. Others as well have argued that, for example, learning strategies in different cultures can reflect cultural worldviews regarding proper social relationships (e.g., rote learning as a reflection of filial piety; Lin, 1988).

Other authors have described the origin of cultural cognitive differences in ways that are at least consistent with a worldview explanation. Several researchers (reviewed in Mishra, 1997) have attributed cultural differences in cognition to both the opportunities presented to and the demands made upon a culture by its environment. I contend that these same demands and opportunities inform a culture’s sense of reality, which is at least coexistent with, and is perhaps a cause of, the cognitive differences that have been found between cultural groups.

It is interesting to consider what would constitute contrary evidence (i.e., evidence against the formative power of worldviews) from this area of psychology. If worldviews did not guide cognition, then cultural differences in cognition would exist independently of cultural differences in beliefs about physical and social reality. However, this is not what we find. Instead, what we seem to encounter across cultures are pervasive environments of historically situated, distinct approaches to life and reality (i.e., worldviews), which in turn appear to underlie cultural differences in cognition.

Overall, the evidence from the study of cognitive differences in cognition is consistent with the notion that these differences are downstream consequences of deep-seated differences in conceptions of reality. This is evidence for the existence of worldviews as conceptualized in the present work.

*Ethnocultural differences in values.* “Values” have been defined as particular sorts of beliefs, specifically, beliefs about certain means or ends of action that are judged as desirable or undesirable (Rokeach, 1973; Schwartz & Bilsky, 1987). It has been demonstrated that values that are central to the self affect cognition and behavior (Verplanken & Holland, 2002). Parallel to the evidence of cultural differences in cognition, there exists a large literature attesting to the existence of ethnic and cultural differences in values (for reviews, see Carter, 1991; Ibrahim et al., 2001; Kagitçibasi, 1997; P. B. Smith & Schwartz, 1997). Differences in cul-

tural values have been traced by some to differences in cultural histories (see discussion in P. B. Smith & Schwartz, 1997, pp. 106–107). This notion is consistent with the idea that cultural differences in values could be a consequence of historically based differences in other aspects of cultural worldviews. (The causally opposite situation, wherein values shape other aspects of worldviews, is also possible, given these data.)

If this were not so—that is, if cultural worldviews did not form cultural values—then it should be possible to find a culture in which the culturally dominant assumptions about life and reality clash with the dominant cultural values. It seems extremely difficult, if not impossible, to come up with such an example.

*Worldview research findings.* The lion's share of worldview-oriented research to date has involved intergroup comparisons in terms of worldview. Often the intergroup comparisons are cultural (for reviews of work in the Kluckhohn, 1950, model, see Carter, 1991; Ibrahim et al., 2001). Other intergroup comparisons have also been made, for example, involving psychotherapists of different theoretical persuasions (Vasco et al., 1993) and counselors of different ethnicities (Mahalik, Worthington, & Crump, 1999).

In some studies, worldview has been used to study differences in behavior, anticipated behavior, and attitudes. For example, Kagee and Dixon (2000) found a modest relationship between worldview and health-promoting behaviors using Pepper's (1942/1970) model of worldview; a similar relationship has been reported for anticipated behaviors using the collated model of worldview (Koltko-Rivera, Gromadzin, & Passmore, 2002). Other studies have investigated worldview correlates with counselor preference (Lyddon & Adamson, 1992), attitudes toward music and counseling (Ortiz & Johnson, 1991), treatment outcome in alcoholism (Fontana, Dowds, & Bethel, 1976), and attitudes about human cloning (May & Koltko-Rivera, 2003). Findings regarding worldview correlates of behavioral and attitudinal differences provide evidence consistent with the notion that worldviews affect behavior and attitudes. (Given the quasi-experimental nature of these data, it is also possible that the opposite is true, or that some third factor influences both

worldviews, on the one hand, and behavior or attitudes, on the other.)

Counterevidence would involve demonstrations of the absence of worldview differences between clearly defined ethnic or cultural groups or of the absence of a significant relationship between worldview and either other cognitions or behavior. This counterevidence seems to be lacking.

*Differential effects of religion and religious experience.* Kahoe (1987) exhorted psychologists interested in religion to focus on "a radical psychotheology," that is, the study of how the specifics of religious belief affect individual and social psychology. Although Kahoe's psychotheological research agenda has yet to be fulfilled to any large extent, a plethora of quasi-experimental studies suggest that, in general, religious beliefs do seem to make a difference in terms of a wide variety of social and political attitudes, as well as behavior, in ways that are generally consistent with a psychotheological framework (see research cited in Hood, Spilka, Hunsberger, & Gorsuch, 1996, and Wulff, 1997; see also Young, Cashwell, & Shcherbakova, 2000). That is, to a statistically significant extent, intergroup differences in beliefs often correspond to intergroup differences in attitudes and behaviors. These correlational data are consistent with the proposition that worldviews affect cognition and behavior. (Of course, the reverse may be true, or an unseen factor may influence worldview as well as cognition and behavior.)

A number of practitioners of counseling and psychotherapy have found it useful to frame their clients' concerns within the context of the specifics of their clients' religious beliefs (e.g., Constantine, 1999; Constantine, Lewis, Conner, & Sanchez, 2000; Cox, 1973; Engels, 2001; Hickson, Housley, & Wages, 2000; Koltko, 1990; Lovinger, 1984, 1990; P. S. Richards & Bergin, 1997, 2000; Shafranske, 1996). This suggests that at least these practitioners believe that specific religious beliefs have an impact on cognition, affect, and behavior. Research demonstrates that clients wish to discuss religious and spiritual concerns in counseling (E. M. Rose, Westefeld, & Ansley, 2001), implying that clients may have the same sense of the effects of religion.

A different but related line of evidence comes from the study of what are described variously

as religious, mystical, “peak,” or transpersonal experiences (a heterogeneous collection, to be sure). One aspect of the mystical experience has been described as *noetic*, that is, as involving the subjective sense that one has gained objectively true knowledge about the nature of reality (Hood, 1975; Stace, 1960; Waldron, 1998). More specifically, the research literature indicates that mystical–peak–transpersonal experiences can be associated with changes in the way that the experiencing person perceives reality; these changes, in turn, are associated with other changes in cognition, affect, and behavior (e.g., Argyle & Hills, 2000; Byrd, Lear, & Schwenka, 2000; Doblin, 1991; Hood, 1974; H. Hunt, Dougan, Grant, & House, 2002; Koltko, 1991; Lukoff & Lu, 1988; Mallory, 1977; McClain & Andrews, 1969; Palmer & Braud, 2002; Waldron, 1998; Wuthnow, 1978). In addition, if it is granted that meditation can be a precursor to mystical experience, it is noteworthy that several studies have indicated—in experimental frameworks—that at least some forms of meditative discipline are associated with changes in cognition and affect (e.g., Easterlin & Cardeña, 1998–1999; Gifford-May & Thompson, 1994; Haimerl & Valentine, 2001; Nidich, Seeman, & Dreskin, 1973; Page et al., 1997; Sacks, 1979; Seeman, Nidich, & Banta, 1972; Shapiro, 1992; Walsh, 1999). All of this suggests that certain types of exceptional experiences change worldviews, which in turn influence cognition, affect, and behavior. (It is also possible that such experiences directly shape cognition, affect, and behavior, independently of worldview.)

### *Are Worldviews Simply Schemas?*

It could be argued that “worldview” is just another name for *schema*, a construct that has been applied within several psychological subdisciplines. Certainly this is suggested by McClelland’s (1951) use of “schemata” to refer to attitudinal orientations and frames of reference. This idea is also suggested by Allport’s (1958) use of the term “ideational schemata” to signify “generalized thought-forms” (p. 250). Although a lengthy review of the schema literature is beyond the scope of this article, I consider here the basic meaning of *schema*, ways in which schemas and worldviews seem similar and different, and possible resolutions to the worldview-as-schema question.

The origin of the schema construct is usually traced to the work of Frederic C. Bartlett (1932), who used the term to describe a cognitive structure, based on prior knowledge, that provided a sort of generic template for memory of an everyday object or event. (Thus, one might have a schema for “getting a haircut,” “chair,” “restaurant,” and so forth.) In laboratory studies, Bartlett found that people’s memory for newly presented stories was assimilated to their previously formed schemas. The discovery of schemas thus provided an explanation for factual errors in memory. Although generally ignored during the heyday of behaviorism, Bartlett’s ideas were rediscovered at the beginning of the “cognitive revolution” in psychology during the late 1960s (Schliemann et al., 1997).

Since that time, the schema construct has been extended to include the notion of hierarchical organization of schemas (Norman, 1981, 1982), such that a so-called “parent schema” like “writing a psychology journal article” includes subordinate or “child schemas,” such as “reviewing the literature.” The schema construct has been applied to many areas of cognition, from letter recognition to relatively complex knowledge such as knowledge of ideology and science (G. Cohen, 1996, p. 77). It has been suggested that an individual’s religion can function as a cognitive schema, providing a comprehensive approach to reality not unlike what I label here as a worldview, with far-reaching consequences for cognition and the ability to cope (McIntosh, 1995/1997). To mention some examples from recent research, the schema construct is now applied to a wide array of phenomena beyond simple objects and commonplace events, including schemas about the self (DeSteno & Salovey, 1997), ethnicity or race (Levy, 2000), work teams (Scherer & Petrick, 2001), self–other relationships (M. W. Baldwin, 1997; Blatt, Auerbach, & Levy, 1997; Soygüt & Savasir, 2001), factors involved in the transmission of HIV (Janssen, De Wit, Hospers, & Van Griensven, 2001), cultural awareness (Webster, 2001), and career areas (Rousseau, 2001). Indeed, the very generality of schema theory has been a point of criticism (see discussion in Webster, 2001); one wonders whether perhaps the term has been extended too far beyond its original scope.

Is a worldview simply a schema applied to reality itself—the ultimate parent schema, as it

Table 1  
*Distinctions Between Schemas and Worldviews*

Issue	Schema	Worldview
Entities addressed	Concrete, everyday objects and actions	Abstract concepts and hypothetical objects
Mechanism of formation	Generalization from direct, personal, face-to-face experience	Cultural transmission, as well as culturally mediated abstraction from personal experience
Structure	Monopolar	Multipolar
Ease of disconfirmation	Easy to difficult	Difficult to extremely difficult
Consequences of disconfirmation	Minimal	Catastrophic/transformativ

were? Certainly some who use the term *worldview* describe it as a schema (e.g., Janoff-Bulman, 1989; Liu, 2002). As attractive as the prospect might be of assimilating worldview into the schema construct, it should be noted that there are distinctions to be made, at least on logical grounds, between worldview and schema (taking the latter term as defined by Bartlett, 1932, and extended by Norman, 1981, 1982). These distinctions are summarized in Table 1.

First, it seems that schemas and worldviews address different entities conceptually. Schemas, as originally conceptualized, focus on everyday concrete objects and actions. (In this light, a “schema” of ideologies represents a questionable extension of the term.) Worldviews, on the other hand, focus largely on “objects” with which one does not typically have everyday concrete, face-to-face experience (e.g., God) and on abstractions (e.g., “Can people really change, or not?”). Although it can be argued that everyone must address daily such issues as human mutability in one way or another (e.g., “Am I going to be able to give up smoking, or not?”), surely the encounter one has with a chair is different in nature from the “encounter” one has with human mutability. An encounter with the former is visual, tactile, and auditory; in contrast, one’s encounter with human mutability involves at least one full degree of abstraction from the raw data of experience.

Second, schemas and worldviews seem to be formed in different ways. Schemas are formed through generalization from direct experience with concrete objects and actions. On the other hand, at least in some aspects, worldviews are transmitted culturally (e.g., one can learn of mutability by hearing the proverbs “You can’t teach an old dog new tricks” or “It’s never too

late to turn over a new leaf”), and as well are formed through abstraction from personal experience.<sup>3</sup>

Third, the conceptual structures of schema and worldview dimensions are different. One can conceive of a given concrete object or action being placeable along a single schema dimension that has only one real pole (analogous to the hypothetical magnetic monopole in physics, a tiny magnetic particle that has a north pole or a south pole, but not both). That is, one may compare a given object on which one sits with the “chair” schema; the object may then be situated along a continuum of “chairness” that ranges from “certainly fits the schema for chair” to “not a chair at all.” However, worldview beliefs are often at least bipolar—that is, having two real and distinct poles, not just one pole of presence and another of absence—and are often tripolar or multipolar. For example, in Kluckhohn’s (1950) “human nature value orientation” (i.e., a worldview dimension dealing with conceptions of human nature), there are four choices: Human nature can be seen as good, as evil, as a mixture of good and evil, or as morally neutral.

Fourth, in principle, it would seem easier to disconfirm a concrete schema than to disconfirm an abstract worldview belief. One can disconfirm a schema stating that “trains have

<sup>3</sup> In brief, I consider generalization and abstraction to be distinct, albeit related, processes. One *generalizes* from experience with several specific restaurants to form a schema of “restaurant.” However, one *abstracts* from experience with many, very different types of instances in attempts to change one’s own or another’s behavior (e.g., stopping smoking, changing diet or exercise behavior, or practicing different sets of social manners) to form a sense of human mutability.



wheels” with enough exposure to the Japanese *Shinkansen* (the magnetic “bullet train,” which glides above its track). One might even disconfirm a schema stating that “restaurants have chairs” with enough exposure to the Stand-Up Café (where considerations of budget, space, and the need for customer turnover have forced this hypothetical eating establishment to eschew seating). But how does one disconfirm a schema about how the universe was created? Or the nature of human agency? Or the proper nature of human relationships? The ultimate source of moral guidelines? The character of God? People living on the same planet—often within the same culture—have disagreed on these issues for thousands of years. Repeated exposure to similar stimuli seems not to have stamped out intragroup disagreements (except occasionally, temporarily, and very unfortunately through the force of law, under totalitarian governments).

Fifth, it seems likely that there would be different consequences for the individual when schemas are disconfirmed, as opposed to when worldviews are disconfirmed. If one’s schema for a proper restaurant is disconfirmed, one may either assimilate the new information into one’s restaurant schema or choose to discount the Stand-Up Café as deviant, as not a “real” restaurant (i.e., what mathematicians would call a “degenerate example,” such as a hypothetical “triangle” where one angle is 0° wide). On the other hand, if one’s worldview is disconfirmed, one’s very sense of reality has been shaken. Whether we see this as the territory of personal crisis, transformation, or something of both, the consequences are literally world shattering. It is one thing to encounter a restaurant without chairs. It is quite another to face a world without God. (Of course, just the opposite kind of worldview transition is possible—and equally cataclysmic.<sup>4</sup>)

(As a testable hunch concerning a related issue, my sense of the situation is that, within a given cultural group, there will be far more agreement on concrete schemas of a given object or activity than there is regarding abstract worldviews of a given concept. Consider the following thought experiment. Sample the dominant cultural groups within specific areas of the United States, Brazil, Eritrea, Finland, and Japan. Within each cultural group, ask people for their descriptions of such concrete items or activities as “door,” “eating breakfast,” and

“proper final treatment of the body of a deceased person.” Then, within each cultural group, ask people for their descriptions of such worldview concepts as “the proper way to relate to authority figures” and “the ultimate source of moral guidelines.” I predict high intragroup consistency on concrete schemas and significantly lower intragroup consistency on abstract worldview concepts.<sup>5</sup>)

Thus, on logical grounds, worldviews and schemas seem to address different entities, form in different ways, have different structures, disconfirm with different degrees of difficulty, and have different consequences in the event that they are disconfirmed. Hence, there is some reason to think that worldviews and schemas are different, albeit related, constructs. For those who take the position, despite these arguments, that worldviews are simply overarching schemas, the rest of this article serves as a guide to the internal structure and function of what may be the most comprehensive schema of all. Ultimately, empirical findings should replace the logical grounds advanced here, to decide this issue.

### A Collated Model of Worldview Component Dimensions

For the most part, each theory reviewed earlier revolves around but one or a few dimensions. In the aggregate, however, these theories demonstrate that there are many dimensions for a comprehensive model of worldview to embrace. With such a fragmented literature, a “big tent” approach makes sense. That is, I suggest that *every* dimension considered in *any* of the theories described earlier be included, at least tentatively, in a comprehensive model of the dimensions of worldview.

<sup>4</sup> I suggest here that disconfirmation of worldview may be experienced as catastrophe. In this respect, it is interesting to note that research demonstrates that something like the converse certainly is true: In the face of mortality salience (i.e., anticipation of a type of catastrophe), people seem to feel the need to reaffirm their worldviews (Greenberg et al., 1990; Rosenblatt, Greenberg, Solomon, Pyszczynski, & Lyon, 1989). One can hardly imagine mortality salience resulting in the need to reaffirm one’s chair or restaurant schemas.

<sup>5</sup> I thank Kathleen Schmid Koltko-Rivera for suggesting this point and its accompanying thought experiment.

Some might fault this approach on the grounds of its complexity. However, parsimony, though methodologically virtuous, is not necessarily accurate in fact. Nature is *not* parsimonious; it is exuberantly complex (Caso, 2002), and perhaps nowhere more so than in relation to the human mind. Occam's canon is "Entities are not to be multiplied *without necessity* [italics added]" (Bunge, 1967, p. 113). In judging between theoretical alternatives, "parsimony is . . . of importance but only after matters of comprehensiveness and verifiability have been settled" (Hall & Lindzey, 1978, p. 13). I suspect that it is the absence of important worldview dimensions from one or another worldview theory that has hindered the use of the construct. Ultimately, multivariate empirical research will reveal which dimensions are actually distinct from one another. Put crudely: "Factor analyze them all—let eigenvalues sort them out." If one starts out with a detailed set of dimensions, research may reveal a simpler structure. Starting out with too small a set of dimensions would make it difficult or impossible to determine whether a more complex approach is needed. Whether tailoring clothing or theory, it is wise to start with more material than the finished product will require.

The result of this bottom-up or synthetic approach to worldview dimensions is the collated model of worldview presented in Table 2 and described subsequently. This model includes the dimensions mentioned by major authors and researchers on the worldview construct, as noted earlier, as well as a few other dimensions that seem to be important to include in a comprehensive account of the worldview construct.

The collated model includes seven *groups*, each of which collects two or more worldview *dimensions*. Each dimension deals with a particular topic of worldview beliefs, and in turn includes two or more *options*, that is, positions that a person may take on the topic that the dimension addresses.

Many of the dimensions noted are truly bipolar in nature; that is, the options reflected in the poles are relatively mutually exclusive (i.e., the more a person's beliefs reflect position X, the less they reflect position Y). For other dimensions, as noted in Table 2, the options are not mutually exclusive. In the case of such

dimensions, each option thus is a subdimension, a monopolarity of the form "A" versus "not A" or "opposite of A." (For example, in the Knowledge dimension, the intuition option is a subdimension representing a contrast between two contrasting positions regarding a single topic: "Intuition is a valid source of knowledge" versus "Intuition is a bogus source of knowledge.") In the following descriptions of dimensions of worldview, references in most cases direct the reader to the work of specific theorists or researchers who made significant mention of the dimension in question.

In terms of Rokeach's typology of beliefs cited earlier (see Figure 1), the dimensions of the collated model include examples of each of the three kinds: existential, evaluative, and prescriptive or proscriptive. However, no model can even attempt to include every important existential belief, even in principle. For example, strictly speaking, beliefs regarding every conceivable being (infrahuman, human, or divine; real or imagined) and any location (Xanadu to Utopia Parkway) are existential worldview beliefs. Consequently, even under the best of circumstances, the collated model must be supplemented by a clear understanding of certain existential beliefs held by the person or culture involved.

A caveat regarding the cultural relevance of the proposed model is in order. It may well be that investigation of worldview structures in different cultures will reveal that not all of the dimensions of the collated model are crucial in all cultures; conversely, there may be other dimensions not mentioned here that are central in some cultures. Indeed, this is almost to be expected, given the extent to which psychological variables and structures put forth by American and European theorists do not necessarily "hold up" in other cultures (J. G. Miller, 1999, 2001).

### *The Human Nature Group*

The Human Nature group includes beliefs about the essentials of human nature. This group contains three dimensions proper: Moral Orientation, Mutability, and Complexity.

The Moral Orientation dimension refers to beliefs about the basic moral orientation or tendency of human beings. The non-mutually ex-

Table 2  
*A Collated Model of Worldview: Grouped Dimensions and Options*

Group	Dimension	Options
Human Nature	Moral Orientation <sup>a</sup>	Good Evil
	Mutability	Changeable Permanent
	Complexity	Complex Simple
Will	Agency	Volition Determinism
	Determining Factors <sup>a</sup>	Biological determinism Environmental determinism
	Intrapsychic <sup>a</sup>	Rational–conscious Irrational–unconscious
Cognition	Knowledge <sup>a</sup>	Authority Tradition Senses Rationality Science Intuition Divination Revelation Nullity
	Consciousness	Ego primacy Ego transcendence
Behavior	Time Orientation <sup>a</sup>	Past Present Future
	Activity Direction <sup>a</sup>	Inward Outward
	Activity Satisfaction <sup>a</sup>	Movement Stasis
	Moral Source <sup>a</sup>	Human source Transcendent source
	Moral Standard	Absolute morality Relative morality
	Moral Relevance	Relevant Irrelevant
	Control Location <sup>a</sup>	Action Personality Luck Chance Fate Society Divinity
	Control Disposition	Positive Negative Neutral
	Action Efficacy <sup>a</sup>	Direct Thaumaturgic Impotent

*(table continues)*

Table 2 (continued)

Group	Dimension	Options
Interpersonal	Otherness	Tolerable Intolerable
	Relation to Authority	Linear Lateral
	Relation to Group	Individualism Collectivism
	Relation to Humanity	Superior Egalitarian Inferior
	Relation to Biosphere	Anthropocentrism Vivocentrism
	Sexuality <sup>a</sup>	Procreation Pleasure Relationship Sacral
	Connection	Dependent Independent Interdependent
	Interpersonal Justice	Just Unjust Random
	Sociopolitical Justice	Just Unjust Random
	Interaction	Competition Cooperation Disengagement
Correction	Rehabilitation Retribution	
Truth	Scope	Universal Relative
	Possession	Full Partial
	Availability	Exclusive Inclusive
World and Life	Ontology	Spiritualism Materialism
	Cosmos	Random Planful
	Unity	Many One
	Deity	Deism Theism Agnosticism Atheism
	Nature-Consciousness	Nature conscious Nature nonconscious



Table 2 (continued)

Group	Dimension	Options
World and Life (continued)	Humanity–Nature	Subjugation Harmony Mastery
	World Justice	Just Unjust Random
	Well-Being <sup>a</sup>	Science–logic source Transcendent source
	Explanation	Formism Mechanism Organicism Contextualism
	Worth of Life	Optimism Resignation
	Purpose of Life <sup>a</sup>	Nihilism Survival Pleasure Belonging Recognition Power Achievement Self-actualization Self-transcendence

<sup>a</sup> Options within dimension are not mutually exclusive.

clusive options are *good* and *evil* (Kluckhohn, 1950; Kluckhohn & Strodtbeck, 1961/1973).<sup>6</sup>

The Mutability dimension refers to beliefs about the changeability of human nature. The options are *changeable* and *permanent* (Kluckhohn & Strodtbeck, 1961/1973; Triandis, 1985; Wrightsman, 1992).

The Complexity dimension reflects beliefs about whether human nature is complicated. The options are *complex* and *simple* (Wrightsmann, 1992).

### The Will Group

The Will group includes dimensions that refer to beliefs about the telic, purposeful function in human life, including free will, determinism, and the rational and irrational roots of behavior. The dimensions in this group include Agency, Determining Factors, and Intrapsychic.

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, wherein all be-

havior is determined in one way or another. Options are *volition* (i.e., free will is real for some behaviors) and *determinism* (i.e., all behavior is determined; see Coan’s, 1974, 1979, discussion of voluntarism, determinism, and finalism; Figueira, 1990; Greve, 2001).

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 are *biological determinism* (reflecting genetic factors) and *environmental determinism* (reflecting social factors; see Coan, 1974, 1979).

<sup>6</sup> Note that different positions in regard to these non–mutually exclusive options correspond to the other options within Kluckhohn’s scheme. Using a hypothetical measure assessing beliefs about good moral orientation and evil moral orientation as orthogonal variables, someone whose beliefs scored as high or moderate good *and* as high or moderate evil would have beliefs reflecting the “mixed” option in Kluckhohn’s scheme. Someone whose beliefs scored as low good and as low evil would have beliefs reflecting Kluckhohn’s “neutral” option.

The Intrapyschic dimension reflects beliefs about whether behavior is chosen rationally and consciously or usually has its roots in irrational or unconscious sources. The non-mutually exclusive options are *rational-conscious* and *irrational-unconscious* (see Coan, 1974, 1979, and Figueira, 1990).

### *The Cognition Group*

The Cognition group includes dimensions regarding beliefs about thought and mind. The dimensions in this group are Knowledge and Consciousness.

The Knowledge dimension refers to epistemological beliefs about reliable sources of knowledge. The non-mutually exclusive options are *authority, tradition, senses, rationality* (i.e., logical processes, not including observation), *science* (i.e., systematic observation), *intuition, divination, revelation, and nullity* (i.e., there are no reliable sources; see Freud, 1933/1964, and Royce, 1964).

The Consciousness dimension refers to beliefs about whether the highest state of human consciousness occurs within the context of ego cognition or transcends the ego in what are described as peak or mystical experiences. Options are *ego primacy* and *ego transcendence* (Maslow, 1968, 1969, 1969/1971, 1970b; Stace, 1960; Walsh & Vaughan, 1993).

### *The Behavior Group*

The Behavior group involves beliefs about the focus of or guidelines for behavior. The dimensions included in this group are Time Orientation, Activity Direction, Activity Satisfaction, Moral Source, Moral Standard, Moral Relevance, Control Location, Control Disposition, and Action Efficacy.

The Time Orientation dimension refers to the proper temporal focus of behavior. The non-mutually exclusive options are *past* (i.e., tradition and stability are valued), *present* (i.e., the present moment is focused on), and *future* (i.e., future rewards and planning are emphasized; see Kluckhohn, 1950; Kluckhohn & Strodtbeck, 1961/1973).

The Activity Direction dimension refers to the proper directional focus of behavior. The non-mutually exclusive options are *inward* (i.e., the focus is on internal qualities such as affect, personality attributes, and spirituality)

and *outward* (i.e., the focus is on external qualities such as achievement or possessions; this is adapted from Kluckhohn & Strodtbeck, 1961/1973, along lines described earlier).

The Activity Satisfaction dimension refers to whether the proper aim of behavior is seen to be *movement* (e.g., improvement or change) or *stasis* (e.g., enjoyment of the present situation), which are not mutually exclusive. (This is adapted from Kluckhohn and Strodtbeck [1961/1973] along lines described earlier.)

The Moral Source dimension refers to beliefs about the source of moral guidelines. The non-mutually exclusive options are *human source* (i.e., society is the source of moral guidelines) and *transcendent source* (i.e., there is a source of moral guidelines that transcends human society, such as a divine being or force).

The Moral Standard dimension refers to beliefs about the relativity of moral guidelines. Options are *absolute morality* (i.e., moral guidelines are absolute) and *relative morality* (i.e., moral guidelines are relative to time, culture, or situation; see Coan, 1974, 1979).

The Moral Relevance dimension refers to beliefs about the personal relevance of society's moral guidelines. The options are *relevant* and *irrelevant*.

The Control Location dimension refers to beliefs about the determinants of outcomes in one's life. The non-mutually exclusive options are *action* (i.e., one's own deliberate actions upon the world—work and effort—determine outcomes in one's life), *personality* (e.g., personal charm or style), *luck* (i.e., a sort of personal magic), *chance* (i.e., randomness), *fate* (i.e., personal destiny), *society* (e.g., bias, favoritism, or prejudice), and *divinity*. This dimension reflects adaptations to Rotter's (1966) locus of control construct and Sue's (1978a, 1978b) locus of responsibility construct, as suggested by other scholars (L. E. Jackson & Coursey, 1988; Kopplin, 1976; Levenson, 1973; D. G. Richards, 1990; Silvestri, 1979; see discussions in Canavan, 1999; Spilka, Shaver, & Kirkpatrick, 1985/1997).

It is one thing to say that a force such as action or luck determines the outcomes in one's life; it is another thing altogether to specify whether action or luck typically works for or against oneself. Addressing this issue, the Control Disposition dimension describes the stance that the determinants of one's outcomes take in

relation to oneself. One option is the *positive* position; for example, if the individual believes that outcomes in life are determined by societal forces such as favoritism (i.e., society control location, as just described), the positive control disposition position reflects the belief that societal favoritism will work in favor of this individual personally. Another option is the *negative* position; extending the preceding example, this reflects the belief that societal favoritism will work against the individual personally. Finally, one may take a *neutral* position; for example, one may believe that societal favoritism plays a strong role in determining outcomes in one's life but that this influence is not exerted in a systematic fashion, and sometimes works in one's favor and sometimes against it. (Note that this dimension may be defined either globally or separately for each option in the Control Location dimension.)

The Action Efficacy dimension refers to beliefs about the types of actions that are effective in creating change in the world (cf. Freud, 1933/1964). The non-mutually exclusive options are *direct* (i.e., direct personal or group action is effective in creating change), *thaumaturgic* (i.e., one can take effective action by means of a supernal force, through magic, ritual, sacrament, or prayer; this position thus reflects belief in what has been called "external agency" by Gilbert, Brown, Pinel, & Wilson, 2000), and *impotent* (i.e., there is no way to take effective action).

### *The Interpersonal Group*

This group involves beliefs about the proper or natural characteristics of interpersonal relationships and collectivities. The dimensions are Otherness, Relation to Authority, Relation to Group, Relation to Humanity, Relation to Biosphere, Sexuality, Connection, Interpersonal Justness, Sociopolitical Justness, Interaction, and Correction.

The Otherness dimension refers to beliefs about persons who are resolutely different from the perceiver in some important way (e.g., they hold a worldview or values, pursue a lifestyle, or believe things that are in some important way different from the norm in the perceiver's culture). Options are *intolerable* (thus implying that the resolutely Other is to be punished, changed, or exterminated) and *tolerable*.

The Relation to Authority dimension refers to beliefs about what forms of authority relations are best or natural. Options are *linear* (i.e., a clearly defined leader and relatively fixed hierarchy wherein authority is exercised in a top-down manner) and *lateral* (i.e., an egalitarian group with rotating or fluid leadership; this is adapted from Kluckhohn & Strodtbeck, 1961/1973, along lines described earlier).

The Relation to Group dimension refers to beliefs about the natural priority of one's personal agenda versus the agenda of one's reference group. The options are *individualism* (i.e., the individual's agenda has priority over the group's needs) and *collectivism* (i.e., the group's agenda has priority over the individual's personal plans and goals; see Kagitçibasi, 1997; cf. Kluckhohn & Strodtbeck, 1961/1973, and earlier discussion). (Note that it may be useful to define this dimension separately for different types of reference groups, such as family or work group [Hui, 1988].)

The Relation to Humanity dimension refers to beliefs about the natural priority of the rights, privileges, and prerogatives of one's ethnic, religious, or cultural group of reference relative to the rights of other such groups. One option within this dimension is *superior*, the position that the rights and prerogatives of one's own ethnic, religious, or cultural group have priority over those of other human groups. This position is most clearly reflected in statements of overt racism (e.g., Macdonald, 1996), but it is also apparent in many less obvious forms of racism in everyday life (see papers collected in Plous, 2003). Another option within this dimension is *egalitarian*, the position that the rights and prerogatives of one's own group are essentially equivalent to those of other groups. A final option within this dimension is *inferior*, the position that one's own group deserves less in the way of rights and prerogatives than other such groups (e.g., the "pre-encounter" stages of racial identity described by Cross & Vandiver, 2001).<sup>7</sup>

<sup>7</sup> It may be necessary to conceive the Relation to Humanity dimension as being composed of a number of subdimensions, each one corresponding to a different type of group that is relevant to a given individual. Thus, it is conceivable that the same individual might take a superior position with regard to his or her religious community relative to other

The Relation to Biosphere dimension reflects one's beliefs about the human species relative to other species. One option is *anthropocentrism*, the position that the rights and prerogatives of human beings have priority over nonhuman species (Chandler & Dreger, 1993; C. Cohen, in C. Cohen & Regan, 2001; Pollan, 2002). The other option is *vivocentrism*, the position that humans and nonhuman animals share equivalent rights; this position is reflected in the animal rights movement (Regan, in C. Cohen & Regan, 2001; Regan, 1982; Singer, 1990) and is perhaps one possible expression of what some have labeled *biophilia*, a hypothesized innate human affinity for life (Kellert, 1997; Wilson, 1984).

The Sexuality dimension refers to beliefs about the proper primary focus, aim, or purpose of interpersonal sexual activity. There are several non-mutually exclusive options for this dimension. The idea that the primary purpose of sexuality is *procreation* is an ancient one (Francoeur, 1992). The notion that sex can have a primary focus of *pleasure* or recreation has played a part in the thought of many cultures from ancient times (Gardella, 1985) and is a powerful contemporary perspective (e.g., Comfort, 1991); this concept is implicit in such contemporary academic definitions of sexual behavior as "behavior that produces arousal and increases the chance of orgasm" (Hyde & DeLamater, 2003, p. 23). Several contemporary therapists take the position that sex can be used to strengthen the emotional bond and improve the quality of the *relationship* between sexual partners (e.g., Seifer & Kollar, 1991). Another option is that sexual behavior has a *sacral* dimension; that is, the primary purpose of sexual behavior can be to experience a spiritual dimension that transcends the mundane. The sacral approach to sexuality has ancient roots, particularly in non-European cultures (Stevens, 1999; Tenzin Gyatso, 1995) and in nondominant Western subcultures (Adler, 1986; Serlin, 1986); in recent years, this option has become of interest to mainstream Western audiences (Anand, 1989; Douglas & Slinger, 1979; Peter-

son, 1993), even being noted by Maslow (1969/1971, p. 286).

The Connection dimension refers to beliefs about the degree of dependence or independence that people naturally display or should display in relation to groups with which they are associated. Options are *dependent* (i.e., people conform to group pressures), *independent* (i.e., people act relatively independently from group pressures), and *interdependent* (i.e., people act from within a context of dynamic tension created by group pressures and individual needs; cf. Wrightsman, 1992).

The Interpersonal Justice dimension (Furnham & Procter, 1989) reflects beliefs about the extent to which the outcomes of interactions in small groups, families, and dyads are just. Options are *just*, *unjust*, and *random* (i.e., outcomes are neither systematically just nor systematically unjust).

The Sociopolitical Justice dimension (Furnham & Procter, 1989) reflects beliefs about the extent to which the actions of social and political collectivities are just (i.e., on a larger scale than small groups). Again, options are *just*, *unjust*, and *random*.

The Interaction dimension refers to beliefs regarding the orientation toward others that one should take by default in social situations. Options are *competition*, *cooperation*, and *disengagement*.

The Correction dimension involves the proper attitude to take toward people who have transgressed an important social standard (e.g., criminals). The options are *rehabilitation* and *retribution*.

### *The Truth Group*

The dimensions in this group describe the stance that people take toward what they hold as "the Truth," that is, an overarching body of doctrine (e.g., a social or cultural mythos, a school of philosophy, a body of religious teaching, a political dogma, or a professional orthodoxy). These are the dimensions of Scope, Possession, and Availability (see Maslow, 1968, 1969/1971, 1970b, and Fowler, 1981).

The Scope dimension reflects beliefs about the degree to which "the Truth" is valid across situations. Options are *universal* (i.e., "the Truth" is true always and everywhere) and *relative* (i.e., "the Truth" varies in its accuracy or

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religious communities, an egalitarian position with regard to his or her ethnic group relative to other ethnic groups, an inferior position with regard to his or her sexual orientation relative to other sexual orientations, and so forth.



applicability by situation; see Coan, 1974, 1979, for a discussion of relativism vs. absolutism).

The Possession dimension concerns the degree to which the person's reference group is in possession of an accurate account of the universe. Options are *full* (i.e., "We have all that is important to have") and *partial* (i.e., "There is much important truth that we do not yet have").

The Availability dimension concerns the degree to which a valid approach to life and knowledge of the world is the exclusive possession of the person's reference group. Options are *exclusive* (i.e., "Only we have the truth") and *inclusive* (i.e., "Other people who are very different from us have the truth, too").

### *The World and Life Group*

This group of dimensions concerns life, the world, nature, reality, and the universe. These dimensions are Ontology, Cosmos, Unity, Deity, Nature-Consciousness, Humanity-Nature, World Justice, Well-Being, Explanation, Worth of Life, and Purpose of Life.

The Ontology dimension (Stace, 1960) reflects beliefs about the nature of the universe. Options are *spiritualism* (i.e., a spiritual dimension to reality is ontologically real) and *materialism* (i.e., nothing exists but quotidian matter and energy).

The Cosmos dimension reflects beliefs about the creation of the universe and the life within it. Options 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; see Dawkins, 1987; Wright, 2000).

The Unity dimension concerns 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 in which paradoxes and conflicts are transcended. The options are *many* and *one* (see Plato, translated in Cornford, 1939/1961).

The Deity dimension reflects beliefs about the nature of a deity or supreme being. Options are *deism* ("God" is an impersonal force), *theism* (God/-s/Goddess/-es exist as a personal being or beings), *agnosticism* (one either does not, or in principle cannot, know about the existence of a deity), and *atheism* (there is no deity; see Kahoe, 1987, and D. Smith, 1980).

The Nature-Consciousness dimension (Stace, 1960) concerns beliefs about the existence of consciousness within nonhuman "natural" phenomena (e.g., rocks, trees, or the Earth itself). Options are *nature conscious* and *nature nonconscious*.

The Humanity-Nature dimension involves the proper relationship between humanity and the natural world. Options are *subjugation* (i.e., people are at the mercy of nature), *harmony* (i.e., people are a part of nature and should "work with it"), and *mastery* (i.e., it is humanity's prerogative to subdue nature). This dimension has its basis in Kluckhohn's model (Kluckhohn & Strodtbeck, 1961/1973), but it is also reflected in such constructs as the so-called New Ecological Paradigm (Dunlap, Van Liere, Mertig, & Jones, 2000; see also Kuhn, 2001).

The World Justice dimension (Furnham & Procter, 1989; Lerner, 1980) refers to beliefs regarding whether the world as a whole (aside from its sociopolitical aspects) functions in a just manner. Options are *just*, *unjust*, and *random*.

The Well-Being dimension concerns the sources of principles to follow to further one's health and safety. The non-mutually exclusive options are *science-logic source* (i.e., well-being comes about through adherence to principles gleaned from empirical observation, scientific findings, and rational or linear logic) and *transcendent source* (i.e., well-being comes about through obedience to principles that derive from some source beyond human science or logic, e.g., "divine law" or "the Tao"; see Freud, 1933/1964).

The Explanation dimension involves different ways of explaining the causes behind events in the world (Pepper, 1942/1970). Options 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).

The Worth of Life dimension involves two options. These are *optimism* (i.e., life is worthwhile; social progress and individual fulfillment are possible) and *resignation* (i.e., life is inevitably headed for deterioration; see Coan, 1974, 1979).

The Purpose of Life dimension refers to one's beliefs about the purpose of life. The non-

mutually exclusive options are *nihilism* (i.e., there is no purpose), *survival* (including reproduction for its own sake), *pleasure*, *belonging*, *recognition* (i.e., by others), *power*, *achievement*, *self-actualization*, and *self-transcendence* (including service to others; see Maslow, 1969, 1970a; de Ropp, 1968/1989).

### An Integrated Theory of Worldview Function in Personality

It has been asserted that “constructing unifications is the most important type of theory work in our science [i.e., psychology]” (Staats, 1999, p. 11). The theory proposed in this section proceeds from this premise, in an attempt to connect worldview to personological processes. The study of personality has largely been conducted within four different approaches to research, approaches that study, respectively, the domains of personality traits, motivation, cognition, and social context (Winter & Barenbaum, 1999). The proposed integrated theory of worldview positions this construct in relation to each of these four domains, illuminating each and integrating them into a unified vision of personality.

There are certainly other personality theories that aim to unify these domains. Two notable such theories include the five-factor theory (FFT) of McCrae and Costa (1999) and the cognitive–affective personality system (CAPS) theory of Mischel and Shoda (1995, 1998, 1999). In relation to FFT, the integrated theory of worldview may be considered a reconstruction that closely focuses on the elements labeled “characteristic adaptations” by the authors of FFT (McCrae & Costa, 1999, p. 142), including personal strivings, attitudes, and the intriguingly titled “personal myths” (p. 142), all of which, these authors have noted, “vary tremendously across cultures” (McCrae & Costa, 1999, p. 144). In relation to CAPS theory, the integrated theory of worldview may be considered a reconstruction that closely focuses on the function of the “mediating units” that the CAPS theory describes, units that encode situational features and that generate cognition, affect, and behavior accordingly (Mischel & Shoda, 1995, p. 254). The integrated theory proposed in this article, however, is self-contained and does not depend on either the FFT or CAPS theories; it is generally compatible with psychodynamic, cog-

nitive, or humanistic theories of personality. Using Mischel’s (1999) fivefold typology of personality theories (psychodynamic, trait–biological, phenomenological, behavioral, and cognitive social), the proposed integrated theory of worldview may be cast as a phenomenological–cognitive–social hybrid that makes allowances for psychodynamic and dispositional influences on worldviews as they affect behavior.

### *Foundations of the Integrated Theory*

The literatures reviewed earlier made very general contributions to the integrated theory. Although none of these sources proposed formal theory, most have in common the explicit idea that worldviews affect behavior, in the sense that an individual’s behavior is somehow consistent with that individual’s worldview. At the same time, none of these sources claimed that behavior is only an expression of worldview; other aspects of the person, such as intellect and traits, also play some role in forming behavior. In addition, many of these sources emphasized the role of culture in transmitting worldviews. Some sources are explicitly “multicultural,” not just in the sense that they look at cultural variables but also in the sense that they attempt to make culture central to psychology, rather than peripheral (Pedersen, 1999). Finally, some sources take positions within social constructionism or constructivism. That is, they emphasize how people participate in the creation of the experienced world rather than merely discover it (Berger & Luckmann, 1966/1967; Gergen, 1985, 1990; González, Biever, & Gardner, 1994).

### *Self, Behavior, and Experience*

At the highest level of abstraction, we may consider causal relationships among self, behavior, and experience (see Figure 2). The self emits behavior; behavior results in experience; experience molds the self (and one’s worldview, an aspect of the self). (It should be noted that “behavior” includes self-reports of “unobservables” such as affect and cognition.) The model of self used in this theory is illustrated in Figure 3 (which shows the path that an individual’s experience of a stimulus takes from sensation to perception and concept formation) and Figure 4 (which shows the path that an individ-

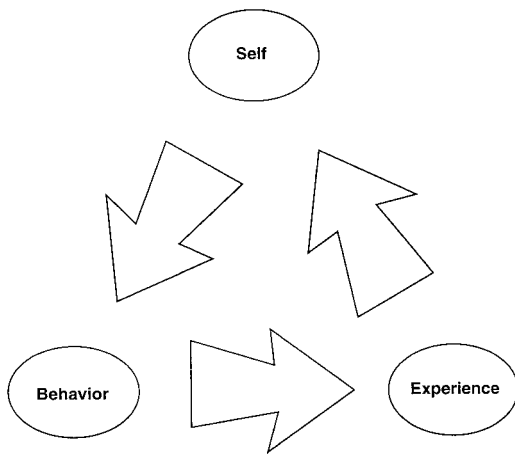


Figure 2. Causal relationships among self, behavior, and experience.

ual's behavior takes from motivation to execution). (An individual's general fund of concepts, including the self-concept, is considered an aspect of memory stores, which are not illustrated.)

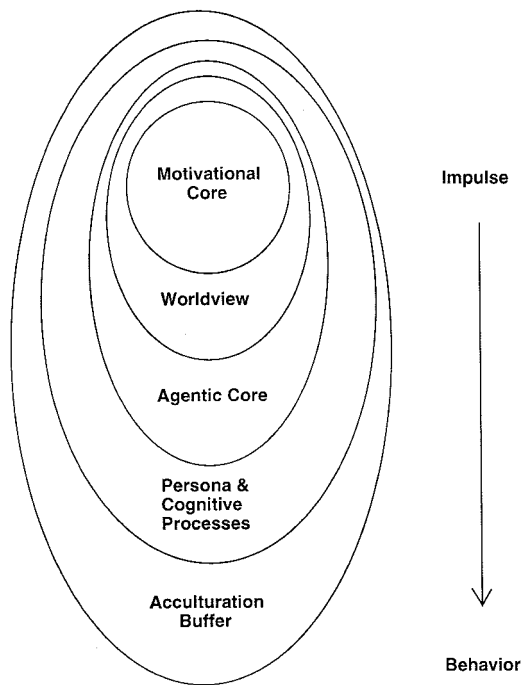


Figure 4. The acting self.

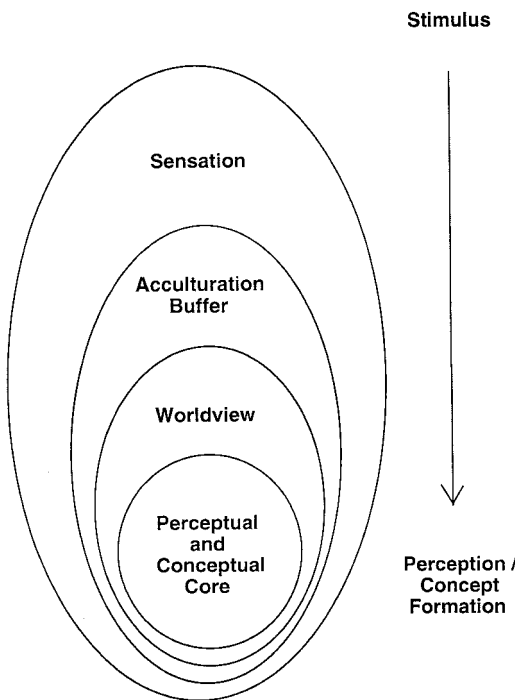


Figure 3. The experiencing self.

Two limitations of the theory should be noted at the outset. First, this is a theory of current functioning, not ontogenesis. Consequently, a number of important issues, including development, are not fully addressed in this theory. However, it is to be understood that worldview is an aspect of the self that develops over time, mediated by culture. This developmental process can be conceptualized from different theoretical standpoints (e.g., symbolic interactionism, as in Artinian & McCown, 1997). This manifestation is something both mandated by human nature and influenced by experience. The theory asserts that all human beings have a worldview; however, the nature of that worldview is dependent on many factors, expressed through the "experience" side of the model (see Figure 5, described subsequently).

As another limitation, it should be noted that there is absent from the theory any notion of the genetic or neural mechanisms underlying worldviews and their function. The development of such an understanding, within the context of social-cognitive neuroscience, would contribute to unification of our understanding of

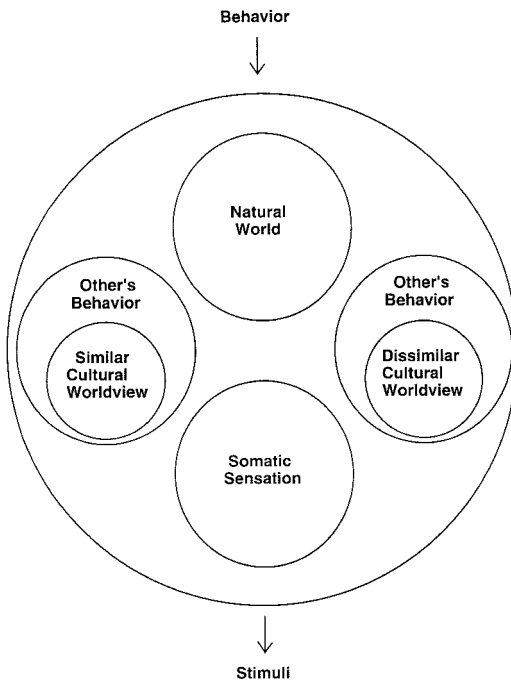


Figure 5. Sources of experiential stimuli.

the human organism in both personal and social domains (Ochsner & Lieberman, 2001).

### *Worldview and the Experiencing Self*

Figure 3 illustrates the aspects of the self that are involved when a stimulus interacts with the individual. These aspects include *sensation*, the *acculturation buffer*, the *worldview*, and the *perceptual and conceptual core*. It should be noted that “stimulus” in Figure 3 is an aspect of “experience” in Figure 2.

A stimulus directed at the individual first encounters psychophysiological processes of sensation. There would seem to be no clear evidence of cultural influences on sensation (Russell, Derogowski, & Kinnear, 1997). When a stranger on the street says a word to me, that word has the same impact on my auditory sensorium as it would have on the sensorium of an Inuit in Alaska, a Greek in Athens, or a Maori in New Zealand.<sup>8</sup>

A stimulus directed at the individual next encounters the acculturation buffer. Acculturation to a particular culture comprises the extent to which an individual has a commitment to that

culture’s mode of valuation and expression. Research suggests that acculturation per se is inherently multidimensional (Ryder, Alden, & Paulhus, 2000), in the sense that it refers to identification with not only a mainstream or majority culture, but perhaps also with one or more “heritage” cultures (i.e., cultures of origin) or adopted cultures. Acculturation has complex affective, cognitive, and behavioral aspects (Chun, Organista, & Marín, 2003). 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 both the individual’s primary culture and secondary cultures, if any. When strangers on the Lower East Side of Manhattan call me “*Boychik*” or “*Compadre*,” the impact of these statements will be different depending on the extent to which I am acculturated to Yiddish-speaking or Spanish-speaking cultures, respectively (or both). 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’s next interpretive stage is the individual’s worldview. This, of course, is the set of assumptions or beliefs that the individual has about reality and life. When a stranger calls me “*Boychik/Compadre*,” the interpretation given to this statement will be different depending on what assumptions I hold regarding, for example, the typical moral orientation of human beings (e.g., “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 and conceptual core processes of the individual. At this point, the self “experiences” the percept as a gestalt, and a concept is formed about the meaning of the stimulus. In the preceding example, possible meanings are many, depending on the nature of the individual’s ac-

<sup>8</sup> It might be argued that cultural differences in color naming reflect cultural influences on sensation. As it happens, at least some cultural differences in color naming may be the result of differential exposure to phototoxic ultraviolet radiation in different parts of the world (Lindsey & Brown, 2002); cultural differences would be spurious, masking differences based on simple geography.



culturation buffer and worldview. For example, possible meanings include “This is a friend,” “Someone needs my assistance,” “This person is trying to help me,” “This person is about to attempt to rob me,” “I have incurred the obligation to respond appropriately according to the social status of the speaker,” and so forth.

### *Worldview and the Acting Self*

Figure 4 illustrates the aspects of the self that are involved as impulse becomes behavior (perhaps, but not necessarily, in response to an external stimulus). These aspects include the *motivational core*, the *worldview*, the *agentic core*, the *persona* and *cognitive processes*, and the *acculturation buffer*. The consequent output in Figure 4, behavior, is identical to “behavior” in Figure 2.

The motivational core is the engine that powers the individual’s behavioral system, as it were. Of course, motivation is constructed differently in different theories of personality. However, many disparate theoretical schemes of personality agree that human personality involves motivational impulses of some sort, be they the unconscious, instinctual id impulses of Freudian psychoanalytic theory; the teleological impulse to individuation of Jungian psychoanalysis; the teleological motivations to self-actualization and self-transcendence of Maslovian theory; or the survival and reproductive impulses of evolutionary psychology theory (to mention only four such theories). A motivational impulse may arise in connection with perception of something external to the individual (see Figure 3) or independently.

Thus, to continue the example mentioned earlier, let us assume that some person unknown to me has given me a word of greeting. Let us further assume a Maslovian model of motivation (Maslow, 1969, 1970a). The predominant motivational need apparent in me would make a great deal of difference in terms of engendering the behavior that I ultimately emit. For example, if I were primarily motivated by safety concerns, at this point, the impulse might involve addressing safety issues. Depending on the experienced perception (see Figure 3), this could involve everything from my seeking to gain the stranger’s protection to my seeking protection *from* the stranger. If I were primarily motivated by belongingness and affiliation concerns, the

impulse might involve my addressing those concerns (e.g., by my seeking to make the stranger’s acquaintance or by avoiding the stranger because of the impact of such an acquaintance on my social standing).<sup>9</sup>

The motivational impulse is next conditioned or informed by the individual’s *worldview*, which lays out a sense of what should be done to act on the impulse and how this might be accomplished. For example, let us consider a worldview characterized by present time orientation, inward activity direction, and stasis activity satisfaction, in contrast to one characterized by future time orientation, outward activity direction, and movement activity satisfaction (see Table 2). To continue my example, if I held the position that the most important thing to do usually is to experience the pleasures of social conversation in the moment, a conversation would be relatively likely (“Let’s enjoy this time together”); this would not be so if I held the position that the most important thing to do usually is to focus on external achievement (“Must run—I have things to do!”).

Motivational impulses next encounter the *agentic core*, which is the locus of personal will. In the proposed theory, personal will (“free will”) is real, not merely a self-perceptual illusion, and it reflects that portion of a person’s capacity to choose that is not determined by genetic, social, or intrapsychic 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 will itself is a determining force in behavior and that will does not act in a vacuum but is informed by one’s worldview. Taking this position raises questions about the meaning and etiology of choice, will, and agency—questions that are, regrettably, beyond the scope of the present work.<sup>10</sup>

<sup>9</sup> I have chosen in the proposed theory to position motivation in terms of behavior rather than perception. In doing so, of course, I am ignoring the possibility that motivation affects perception itself. Research may demonstrate that this aspect of the model requires revision.

<sup>10</sup> The matter of free will has a long history of vigorous debate that has been rekindled in recent years in psychology (Greve, 2001). Some psychologists consider a thoroughgoing genetic and environmental determinism to be a central tenet of a scientifically rigorous psychology (e.g., Kimble, 1989, p. 491). In addition, recent research and theory have led some to conclude that the perception of personal will is essentially illusory (e.g., Bargh & Chartrand, 1999; Goll-

The worldview-colored choice is next filtered through the individual's *persona* and *cognitive processes*. The *persona* supplies some of the affective overlay and personality flavor to behavior; this is where trait and temperament come into play (e.g., Rothbart, Ahadi, & Evans, 2000). (Returning to the greeting-on-the-street example, my behavior would be quite different if I had schizoid tendencies as opposed to dependent or oppositional ones.) *Cognitive processes* structure the implementation of the choice, in light of circumstances. (For example, my response will reflect my level of intellect and judgment, skills at verbal composition, vocabulary, and so forth.) As noted earlier, there are significant cultural influences on cognition (Mishra, 1997; Schliemann et al., 1997), influences that may function independently of cultural influences on worldview or acculturation.

Finally, the *acculturation buffer*, the expression of the internalized culture(s) of the individual (see earlier discussion), puts the choice into a form that is culturally acceptable to the individual emitting the behavior. (For example, I may be socialized to respond to any greeting with a polite response, whether to acquaintance or stranger.) This culturally embedded choice is then emitted as the individual's behavior—a behavior that is consistent with the individual's motivation, acculturation, worldview, personality, and cognitive processes.

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witzer, 1999; Park, 1999; Wegner, 2002; Wegner & Wheatley, 1999). However, the work of other psychologists demonstrates that there is a place within a rigorous psychology for a volitional approach to human agency (e.g., G. S. Howard, 1993, 1994; Mahoney, 1993; Rychlak, 1979, 1997, 2000, 2003; Slife & Fisher, 2000; Tinsley, 1993; see also comments responding to Bargh and Chartrand in the July 2000 issue of the *American Psychologist*). This is an issue that cannot be settled within the limitations of this article. However, despite the theoretical and empirical conflicts in the field regarding agency, and despite the difficulty that one encounters in attempting to operationalize the construct of will, the matter of free will and agency cannot simply be ignored (Greve, 2001). Many if not most theories of personality take a position on agency, although this is usually done implicitly rather than explicitly (Slife & Williams, 1995), a practice that makes for poor science. In the current situation, there is certainly enough difference of opinion in the profession to justify giving will a place in formal personality theory, as I do here. (Of course, I thereby take an explicitly volitional stance on the dimension of Agency within the collated model of worldview). Giving will a place within formal theory will facilitate empirical investigation of the construct.

### *Worldview and the Stimuli of Experience*

The sphere of experience shown in Figure 2 is illustrated in more detail in Figure 5. In the proposed theory, experience is composed of stimuli impinging upon the individual's consciousness. The sources of these stimuli include the *natural world*, *somatic sensation*, and *other's behavior*, the last of which may reflect either *similar* or *dissimilar cultural worldviews*.

The *natural world* involves stimuli emitted from the nonhuman environment. This is a heterogeneous collection of stimuli: sunny days, leaping predators, catastrophic earthquakes, and so forth.

*Somatic sensation* involves stimuli emitted from within the individual's body. These also include a heterogeneous collection of stimuli: sleepy satiety, sexual orgasm, gastrointestinal distress, and so forth.

*Other's behavior* involves stimuli emitted toward the individual by another person, whose behavior may or may not be in response to the behavior of the individual in question. Each circle labeled "other's behavior" in Figure 5 may be thought of as representing numberless such circles, each of which consists of a replication of the modules shown in Figures 3 and 4 but for a different individual, an Other.

There may be a salient difference among these Others. Some will hold worldviews similar to that of the individual under consideration. However, in a multicultural society, some of these Others will hold radically different worldviews. This difference is suggested by the components labeled *similar cultural worldview* and *dissimilar cultural worldview*, where "similar" and "dissimilar" involve comparison with the experiencing individual.

### *Emergent Properties of the Proposed Theory*

Three properties of the proposed theory of worldview are to be noted here. First, the proposed theory is infinitely recursive, in that each Other in Figure 5 contains an experiencing self (see Figure 3) and an acting self (see Figure 4) that interact with experience (see Figure 5). In addition, the theory exhibits feedback, in that the behavior emitted by the Self (see Figures 2, 4, and 5) may affect behaviors emitted by Others, whose behaviors in turn become stimuli for

the Self. Finally, the proposed theory focuses on the intersubjective nature of psychological phenomena. That is, as in intersubjectivity theory in contemporary psychoanalysis, the proposed theory “seeks to comprehend psychological phenomena not as products of isolated intrapsychic mechanisms, but as forming at the interface of reciprocally interacting subjectivities” (Stolorow & Atwood, 1992, p. 1).

It is hoped that these characteristics as a whole help the proposed theory to avoid two failures that Marková (2000) has termed “the Scylla of atomism and the Charybdis of post-modernism” (p. 108). That is, it is hoped that the proposed theory does not separate the individual and society (or culture) into two separate units and that the individual does not utterly disappear into society on a conceptual level.

### *Culture and the Integrated Theory of Worldview*

In recent years, there have been numerous and urgent calls to make culture central to theory, research, and practice in psychology (e.g., Cole, 1996; J. G. Miller, 1999, 2001; Pedersen, 1999, 2000; Sue, Bingham, Porché-Burke, & Vasquez, 1999; S. Sue, 1999). It is thus appropriate to highlight specifically how the proposed integrated theory of worldview addresses culture.

The integrated theory stipulates that experience with others shapes the self and thus shapes worldview (see Figures 2 and 5). An important aspect of each person with whom one has contact is that person’s worldview (see Figure 5). When people of a similar worldview also share similar history and language, we call the resulting collectivity a culture (Baber, Garrett, & Holcomb-McCoy, 1997; Beutler & Bergan, 1991; Okazaki & Sue, 1995). Thus, it is implicit in the theory that an individual’s worldview is shaped, probably to a very large extent (though not exclusively), by the cultures that the individual encounters (Artinian & McCown, 1997).<sup>11</sup>

Culture also enters the theory through acculturation, which herein is central to both perception and behavior. To oversimplify, if a worldview is a culture’s expression of the “why” of behavior, acculturation is a culture’s expression not only of the “why” but also of the “how” of

behavior, through preferences for language and investment in a set of affect-laden associations to behavior. Researchers should note that acculturation is both multidimensional and situational (Gushue & Sciarra, 1995, p. 590; Ryder et al., 2000) and deserves careful theoretical formulations in its own right (J. W. Berry, 1989/1995; Chun et al., 2003; Rudmin, 2003).

The integrated theory of worldview has a contribution to make to the psychological understanding of culture itself. Within contemporary cultural psychology, cultures are understood primarily as shared meaning systems (e.g., Cole, 1996; J. G. Miller, 1999). The integrated theory puts forth a hierarchy of meanings, as it were. That is, it directs our attention to specific issues within a given meaning system; the theory alleges that these specific issues (e.g., beliefs about ontology, agency, and epistemology) are superordinate, in that they have a great deal of power in determining other aspects of the meaning system. Thus, worldview theory may be a way to respond productively to the call that some have made for psychologists to specify what specific aspects of culture, or what specific psychological correlates of ethnicity, are responsible for observed cultural or ethnic differences in psychological variables and behavior (Betancourt & López, 1993; S. Sue, 1999).

In summary, the integrated theory positions culture as central to the functioning of fundamental psychological processes. This is in distinction to much psychological theory, wherein culture is “portrayed merely as a qualification . . . or as a moderator variable and not as a constituent process that is implicated in explaining . . . basic psychological phenomena” (J. G. Miller, 1999, p. 85).

### **A Worldview Research Agenda for Personality and Social Psychology**

The “bottom line” worldview question for psychology is, How do worldviews relate to

<sup>11</sup> One line in personality research based on this theory would be investigation of the extent to which individual worldview is a product of familial and cultural influences versus other aspects of personal history, such as education and trauma (which of course are also in part products of culture). I thank Ronald Esposito for suggesting this point.

behavior? What behaviors in which domains are typical of what worldview options, and under what constraints imposed by situational factors and individual differences in personality? These questions take different forms within different subfields of personality and social psychology, as I outline subsequently. In particular, I address validation of the proposed model and theory of worldview, attitudes and group processes, worldview formation and change, personality typologies and traits, positive psychology, and conflict resolution and peace psychology. (A research agenda involving the worldview construct has been outlined elsewhere for counseling and clinical psychology [Koltko-Rivera, 2000, 2003]. Other such agendas have been outlined for abnormal, cross-cultural, health, and educational psychology and other specialty areas [Koltko-Rivera, 2000].)

### *Worldview Model and Theory Testing*

Much research should focus on the proposed collated model of worldview dimensions. Although there are instruments to assess some aspects of the model (reviewed in Koltko-Rivera, 2000), there is room for many psychometric efforts regarding worldview. Once instruments are developed for the proposed dimensions, under the weight of investigation, certainly some of the dimensions proposed in the model will collapse together. (Other dimensions of worldview, absent from the current model, may also emerge from theory or research.) The extent to which different cultures and subcultures (and individuals) use or ignore different worldview dimensions is important to investigate.

The proposed integrated theory of worldview function should also be a focus of much research. There are many aspects of the integrated theory that are open to questions that can only be settled empirically. For example, in the integrated theory, sequences have been proposed in which worldview “kicks in” at specific places during processes of perception and behavior; certainly the validity of these sequences is an open question. Metacognitive approaches to subjective reports might be of use in clarifying how worldviews actually function (Nelson, 1996).

### *Worldviews as Influences on Attitudes and Group Processes*

One distinguishing characteristic of worldview positions is that, in theory, they are superordinate; that is, in theory, differences in worldview dimensions underlie differences in other attitudes. This suggests that an additional layer of predictors should be used to analyze differences in attitudes: worldview variables. For example, a recent study used multiple regression to predict racial and other prejudice from measures of religious fundamentalism and right-wing authoritarianism (Laythe, Finkel, & Kirkpatrick, 2001). Certainly one could consider extending the list of predictors to include other demographic variables (e.g., socioeconomic status, education, ethnicity, sexual preference, or some other religiosity variables) and psychological variables (e.g., traits, racial–ethnic identity, ethnic acculturation, other religiosity variables, and perhaps measures of psychopathology and sociometry) and still stay well within the current practice of attitudinal research. However, worldview theory would suggest that worldview variables constitute an additional set of predictor variables, a set currently ignored in most psychological research.

For example, in terms of the collated model of worldview, one might hypothesize that racial prejudice would be strongly, positively, and uniquely associated with hypothetical measures of each of the following worldview positions: superior relation to humanity, intolerable otherness, past time orientation, and competition interaction. I expect that worldview variables would be more distal from prejudice than religious fundamentalism and right-wing authoritarianism, yet perhaps strongly influence each of the latter; conversely, I expect that worldview would be more proximal to prejudice than ethnicity, of which worldview might be the most salient aspect. Of course, these expectations are testable through such statistical techniques as path analysis. To the extent that the integrated theory of worldview is valid, the addition of worldview variables as predictors would result in greater overall predictive power in multiple regression analyses (i.e., higher  $R^2$  values).

One fundamental issue, the investigation of intergroup similarities and differences on the dimensions of the collated model, is a vast



undertaking, whether these groups are defined by ethnicity, culture, gender, age, religion, vocational grouping, or otherwise. In addition to intergroup matters, the issue of intragroup similarities and differences in worldview raises interesting questions. To what extent is worldview similarity important for group cohesion? On what dimensions of worldview is similarity important? (That is, what dimensions are central to group function or membership?) For what kinds of groups? To function effectively in what roles within a given type of group? What worldview differences, if any, define one as an “outsider” of a given kind of group? What attitudes do group insiders take toward different kinds of outsiders, that is, toward outsiders who manifest different types of worldview differences (or similarities)?

Concerns about attitude formation, intergroup differences, and relationships with group outsiders intersect in the study of behaviors such as the terrorist attacks made on the United States on September 11, 2001. It has been claimed that these attacks were motivated by a certain type of religious fundamentalist worldview, specifically a fundamentalism that thoroughly rejects modernism and that supports the use of violent militancy to advance that rejection (Nielsen, 2001). In terms of the collated model of worldview, one might hypothesize that sympathy with these attacks would be positively associated with hypothetical measures of the worldview positions of authority and tradition knowledge, past time orientation, intolerable otherness, superior relation to humanity, and retribution correction. Further important defining characteristics of such a worldview would lie in the Truth group of worldview dimensions, with positions involving universal scope, full possession, and exclusive availability. Certainly an understanding of violent, militant religious fundamentalism is important to understanding the current and future international situation; a grasp of the worldview dimensions involved may help in differentiating violent militant religious fundamentalism both from other forms of fundamentalism and from other forms of religious expression.

### *Worldview Formation and Change*

The broad matter of how worldviews are formed and develop deserves serious research.

Figure 2 might seem to imply that experience is the primary formative influence on worldview, but this would be both incomplete and misleading. Even within the realm of experience, what are the roles of early caretakers, social institutions (e.g., education and religion), cultural standard bearers, cultural outsiders, and crucial events over the life span in forming worldviews? Moving on to intrapsychic factors, how do worldview, personality traits, and cognitive capacities (e.g., intelligence) influence or co-constitute each other? Gabora (2000) has posited a provocative model for how memories are transmuted into worldviews; this and alternative views deserve serious research attention.

It has been suggested that some attitudes “crystallize” early and remain little susceptible to change throughout most of the life span (Visser & Krosnick, 1998). Under what circumstances do worldviews crystallize, or not? How do they change in terms of strength and susceptibility to change throughout the life span? It may well be that these questions yield different answers for different dimensions of worldview—but if so, why?

The issue of worldview malleability leads naturally to the issue of deliberate efforts to influence or change worldviews, a matter of interest to many subdisciplines in psychology (e.g., counseling and clinical as well as health, peace, and educational psychology). How are given worldview beliefs similar to, and different from, other beliefs and attitudes in terms of how resistant they are to different types of attempts to change them? A voluminous literature exists regarding attitude change; however, it remains to be seen in what way these findings extend specifically to the matter of worldview malleability.

### *Personality Typologies and Traits*

Some research suggests that there is support for the broad distinctions that Freud made between the oral and anal personality types (Fisher & Greenberg, 1996); similarly, research suggests that the Jungian personality types (Jung, 1921/1971) are related to many differences in functioning, including communication styles (see review in Bednarski, 1999). In addition, recent years have seen the accumulation of a large research base supporting the validity of the five-factor model of personality supertraits

(McCrae & Costa, 1999); such an approach is compatible with typological approaches to personality, given that one can define psychological types in terms of high- and low-scoring extremes within traits.

The extent to which personality types are associated with different worldviews is a matter of some interest. Anecdotal evidence suggests that certain personality types are associated with characteristic ways of viewing the social world. (For example, consider the stereotype of the duty-bound, conscientious, “anal” individual versus the stereotype of the sloppy but fun-loving “oral” individual as these stereotypes might hypothetically relate to the Purpose of Life dimension in the collated model of worldview.) However, to my knowledge, little if any serious work has been done in relating personality types to worldviews. This, of course, raises an additional issue regarding personality development: Which came first, the personality type or the worldview profile? Or do these somehow co-constitute each other?

Another interesting question involves the matter of how personality types and traits *interact* with worldview in affecting behavior. For example, it is not a controversial expectation that individuals who believe that the purpose of life is the accumulation of power might engage in different behaviors than those engaged in by individuals who believe that the purpose of life is self-transcendence. However, considering a trait–worldview interaction may add an extra dimension of explanatory power in reference to behavior. In this example, those holding the power belief might engage in very different behaviors if they were individuals scoring high in extraversion, openness to experience, or sociopathy, as contrasted to what behaviors they might engage in if they scored very low on these traits.

### *Positive Psychology*

The recent focus within American psychology on “positive psychology” raises opportunities with regard to worldview. Worldview theory makes a nice theoretical “fit” with positive psychology (as it does with humanistic and transpersonal approaches generally, which provide a larger context for positive psychology; see multiple comments in the January 2001 issue of the *American Psychologist*). It is note-

worthy that “perceived locus of causality” (what is labeled in the collated model as the Control Location dimension; see Table 2) plays an important part in Ryan and Deci’s (2000) self-determination theory, an account of human action within a positive psychology framework. Many more worldview dimensions could be implemented in a theory of human action. In addition, it would be easy to place many different worldview options among the “adaptive mental mechanisms” that Vaillant (2000) noted as having a role in adaptive functioning and mental health. We should expect that the relationship between worldview and well-being may be moderated by ethnicity, because of complex historical factors (as suggested by the research of Kernahan, Bettencourt, & Dorr, 2000).

Worldview theory has contributions to make to positive psychology regarding the study of happiness. Lyubomirsky (2001) studied the difference between happy and unhappy people in terms of a construal theory of happiness, considering multiple cognitive and motivational processes that bear on how individuals construe events in happy and unhappy ways. Surely the individual’s overarching worldview might have some impact on the process of how events are construed in these ways (e.g., consider the impact of differing positions on the World Justice, Worth of Life, and Purpose of Life dimensions from the collated model of worldview).

In another approach to affect through positive psychology, Fredrickson’s (2001) broaden-and-build theory of positive emotions hypothesizes that positive emotions may broaden cognitive and behavioral repertoires and build personal resources. There are several ways in which worldview may be implicated in this process, both as a moderating variable (i.e., certain worldviews may be more conducive to the production of positive emotions in the first place) and as a mediating variable (i.e., emotions may have an impact on worldview, which in turn may have an enduring effect on cognition and behavior).

Some psychologists working within a positive psychology framework have noted the importance of goals in directing behavior (e.g., Baltes & Freund, 2003). It is surely plausible that worldviews would have a strong influence on the selection of goals and thus on the development of human strengths. It is hard to single

out any one dimension of the collated model in this regard, because most or all worldview dimensions can be considered relevant to the matter of short- or long-term goals. However, this relationship may be seen most easily with such dimensions as Mutability (relevant to the issue of whether personal change goals are feasible), Time Orientation, Activity Direction, Activity Satisfaction, Interaction, Control Location, and, of course, Purpose of Life. Some other worldview beliefs are more relevant to the matter of selecting means to attain goals; consider especially, for example, the Knowledge, Action Efficacy, and Well-Being dimensions.

Finally, it has been noted that one crucial question for positive psychology is how momentary experiences of happiness become, in the case of some individuals, the foundation for long-lasting well-being (Seligman & Csikszentmihalyi, 2000). Surely it is at least plausible that worldview may make a crucial difference here, with some worldview options facilitating the short-term-to-long-term transfer (e.g., optimistic worth of life) and other types impeding it (e.g., resignation).

To focus on another aspect of positive psychology, how do worldviews function in regard to resilience in extreme situations? Studies of resilient children suggest that resilience is a normal human process (Masten, 2001). Yet, resilience is certainly not universal. In exploring individual differences in resilience, might worldviews explain some of this variation? For example, do worldviews differentiate between those who succeed despite dire poverty and those who do not (cf. D. W. Miller, 1999)? If so, what is the direction of causation? That is, does the outcome of a struggle in extreme circumstances form one's worldview (as suggested by Janoff-Bulman, 1989, 1992, and Webb & Whitmer, 2001), or does one's worldview influence the outcome of the struggle (as suggested by Dalrymple, 2001)? If both scenarios are true (as is so often the case in psychology), when does one happen, and when the other? Are there worldview options that are more conducive to optimum human functioning and well-being, either generally or specifically in times of crisis (cf. Ruark, 1999)? Certainly this much has been posited strongly by Dalrymple (2001), in his account of how certain worldview attitudes function to create an economic underclass in England whose life is chaotic and violent. How

might this situation have arisen, especially given the perspective of evolutionary psychology?

### *Conflict Resolution and Peace Psychology*

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). There is ample opportunity both to apply this key on several levels of social conflict and to construe these conflicts and this key in worldview terms.

It has been claimed that particularly intractable U.S. domestic political conflicts are the result of clashes in what I here have termed worldviews (Hunter, 1994). On a larger scale, it has been asserted that worldview is at play in contemporary international conflict. It has been noted that, from the late 18th century through the period of the Cold War, European and American international conflicts were rooted to a large extent in differences of explicit ideology (Cassels, 1996). However, it has been claimed that post-Cold War international conflict is and will be much less about political ideologies and much more about a so-called "clash of civilizations" (Huntington, 1996), that is, a conflict between cultures that differ in terms of fundamental worldviews. 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 worldviews of those who exacerbate such crises (Grof & Valier, 1988; Walsh, 1984, 2002). 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 such conflicts are appropriate for psychological discussions (Morgeson, Seligman, Sternberg, Taylor, & Manning, 1999, p. 111; Segall, Ember, & Ember, 1997, p. 243).

Worldview theory may address these issues. How do specific dimensions of worldview contribute to the creation and maintenance of different kinds of conflict? (This may be framed as an extension of the work of Rouhana and Bartal [1998] and Eidelson and Eidelson [2003] regarding the psychological underpinnings of

intractable conflict.) It has been asserted that extreme linear relation to authority underlies genocidal violence (Staub, 1996). Eidelson and Eidelson (2003) noted five “worldviews” (i.e., worldview dimensions) that seem associated with large-scale intercultural violence. These group-level dimensions (with my sense of equivalents from the collated model of worldview in parentheses) are superiority (superior relation to humanity; see also Staub, 1996, and Ignatieff, 1993), injustice (unjust sociopolitical justice), vulnerability (negative control disposition?), distrust (evil moral orientation, applied to group outsiders), and helplessness (impotent action efficacy; Control Location options other than action; resignation worth of life).

Worldview differences may be a source of conflict. However, it may be the case that certain worldview *similarities* foment conflict. For example, consider two groups, each of which takes the following worldview positions: The group has full possession of a truth that is both universal in scope and exclusively available to the group, and—perhaps most important—otherness is intolerable. Despite these worldview similarities—indeed, *because* of these worldview similarities—should the groups differ in the substance of their “truths” (e.g., political, scientific, or religious doctrines), this could set the stage for serious, protracted conflict.

Another step would be to investigate what sorts of conflict resolution techniques are appropriate to conflicts that show different worldview profiles. I imagine that different techniques might be necessary to address effectively conflicts that had different underlying worldview dynamics. In some situations, it may be possible to resolve a conflict by explicitly addressing worldview differences and similarities that exist among the parties to the conflict (e.g., it may be possible for parties to a conflict to bond around shared worldview positions and to forgive each other certain worldview differences as these are pointed out). In other situations, the worldview dynamics involved may make it impossible to resolve the conflict in any way other than forcibly keeping the parties physically separated. In summary, it would be helpful to develop a conceptual map that delineates problematic worldview combinations along with techniques appropriate to addressing them.

### Concluding Remarks

It may seem that I have merely introduced another level of complexity to the psychological enterprise, another large set of questions to answer. I prefer to look at it differently. The point of focusing on the worldview construct is to gain a greater understanding of the human experience. In quantitative research terms, the worldview construct may be useful in explaining at least some of the huge proportion of variance in behavior that is typically unexplained by the predictor variables or experimental manipulations used in many psychological studies. If including worldview variables among the predictor variables increases the  $R^2$  value even by 5% to 10%, this will be well worth the effort. I suspect that, in many domains, the increase in explanatory power afforded by worldview theory will prove to be quite large. In addition, the worldview construct may be useful in tying together questions and subfields into at least a relatively more unified psychology.

### References

- Adler, M. (1986). *Drawing down the moon* (rev. ed.). Boston: Beacon Press.
- Agrawal, M., & Dalal, A. K. (1993). Beliefs about the world and recovery from myocardial infarction. *Journal of Social Psychology, 133*, 385–394.
- Allport, G. W. (1958). What units shall we employ? In G. Lindzey (Ed.), *Assessment of human motives* (pp. 239–260). New York: Rinehart.
- Altman, I., & Rogoff, B. (1987). World views in psychology: Trait, interactional, organismic, and transactional perspectives. In D. Stokols & I. Altman (Eds.), *Handbook of environmental psychology* (Vol. 1, pp. 7–40). New York: Wiley.
- Anand, M. (1989). *The art of sexual ecstasy*. Los Angeles: Tarcher.
- Argyle, M., & Hills, P. (2000). Religious experiences and their relations with happiness and personality. *International Journal for the Psychology of Religion, 10*, 157–172.
- Arndt, J., Greenberg, J., & Cook, A. (2002). Mortality salience and the spreading activation of worldview-relevant constructs: Exploring the cognitive architecture of terror management. *Journal of Experimental Psychology: General, 131*, 307–324.
- Artinian, B. M., & McCown, D. E. (1997). Acquiring a worldview: The developmental environment. In B. M. Artinian & M. M. Conger (Eds.), *The inter-*



- system model* (pp. 31–41). Thousand Oaks, CA: Sage.
- Axtell, J. (1998). Encountering the other. In J. Axtell, *The pleasures of academe* (pp. 69–84). Lincoln: University of Nebraska Press.
- Babbage, D. R., & Ronan, K. R. (2000). Philosophical worldview and personality factors in traditional and social scientists: Studying the world in our own image. *Personality and Individual Differences*, 28, 405–420.
- Baber, W. L., Garrett, M. T., & Holcomb-McCoy, C. (1997). VISION: A model of culture for counselors. *Counseling and Values*, 41, 184–193.
- Badcock, C. (2000). *Evolutionary psychology*. Cambridge, England: Polity/Blackwell.
- Bakan, D. (1996). Origination, self-determination, and psychology. *Journal of Humanistic Psychology*, 36(1), 9–20.
- Baldwin, J. A., & Hopkins, R. (1990). African-American and European-American cultural differences as assessed by the worldviews paradigm: An empirical analysis. *Western Journal of Black Studies*, 14(1), 38–52.
- Baldwin, M. W. (1997). Relational schemas as a source of if-then self-inference procedures. *Review of General Psychology*, 1, 326–335.
- Baltes, P. B., & Freund, A. M. (2003). Human strengths as the orchestration of wisdom and selective optimization with compensation. In L. G. Aspinwall & U. M. Staudinger (Eds.), *A psychology of human strengths* (pp. 23–35). Washington, DC: American Psychological Association.
- Bannister, D., & Fransella, F. (1986). *Inquiring man* (3rd ed.). London: Routledge.
- Bargh, J. A., & Chartrand, T. L. (1999). The unbearable automaticity of being. *American Psychologist*, 54, 462–479.
- Bartlett, F. C. (1932). *Remembering*. Cambridge, England: Cambridge University Press.
- Baumeister, R. F. (1991). *Meanings of life*. New York: Guilford Press.
- Bednarski, M. (1999). *The psychometric investigation and development of a communication style instrument based on Jung's theory of psychological types*. Unpublished doctoral dissertation, New York University.
- Begue, L., & Fumey, V. (2000). Belief in a just world or self-serving strategy? *Social Behavior and Personality*, 28, 119–124.
- Bell, P. B., & Staines, P. J. (1979). *Reasoning and argument in psychology*. London: Routledge & Kegan Paul.
- Berger, P. L., & Luckmann, T. (1967). *The social construction of reality*. Garden City, NY: Anchor/Doubleday. (Original work published 1966)
- Bergin, A. E. (1980a). Psychotherapy and religious values. *Journal of Consulting and Clinical Psychology*, 48, 95–105.
- Bergin, A. E. (1980b). Religious and humanistic values: A reply to Ellis and Walls. *Journal of Consulting and Clinical Psychology*, 48, 642–645.
- Berry, F. M. (1984). An introduction to Stephen C. Pepper's philosophical system via *World Hypotheses: A Study in Evidence*. *Bulletin of the Psychonomic Society*, 22, 446–448.
- Berry, J. W. (1995). Psychology of acculturation. In N. R. Goldberger & J. B. Veroff (Eds.), *The culture and psychology reader* (pp. 457–488). New York: New York University Press. (Reprinted from *Nebraska Symposium on Motivation: Cross-cultural perspectives*, J. J. Berman, Ed., 1989, Lincoln: University of Nebraska Press)
- Betancourt, H., & López, S. R. (1993). The study of culture, ethnicity, and race in American psychology. *American Psychologist*, 48, 629–637.
- Beutler, L. E., & Bergin, J. (1991). Value change in counseling and psychotherapy: A search for scientific credibility. *Journal of Counseling Psychology*, 38, 16–24.
- Blatt, S. J., Auerbach, J. S., & Levy, K. N. (1997). Mental representations in personality development, psychopathology, and the therapeutic process. *Review of General Psychology*, 1, 351–374.
- Boorstein, S. (Ed.). (1996). *Transpersonal psychotherapy* (2nd ed.). Albany: State University of New York Press.
- Botella, L., & Gallifa, J. (1995). A constructivist approach to the development of personal epistemic assumptions and worldviews. *Journal of Constructivist Psychology*, 8, 1–18.
- Brown, D. (1997). Implications of cultural values for cross-cultural consultation with families. *Journal of Counseling and Development*, 76, 29–35.
- Brown, M. T., & Landrum-Brown, J. (1995). Counselor supervision: Cross-cultural perspectives. In J. G. Ponterotto, J. M. Casas, L. A. Suzuki, & C. M. Alexander (Eds.), *Handbook of multicultural counseling* (pp. 263–286). Thousand Oaks, CA: Sage.
- Buber, M. (1970). *I and thou* (W. Kaufmann, Trans.). New York: Scribner. (Original work published 1923)
- Bunge, M. (1967). *Scientific research I*. New York: Springer-Verlag.
- Buss, D. M. (1999). *Evolutionary psychology*. Boston: Allyn & Bacon.
- Byrd, K. R., Lear, D., & Schwenka, S. (2000). Mysticism as a predictor of subjective well-being. *International Journal for the Psychology of Religion*, 10, 259–269.
- Byrom, T. (Trans.). (1993). *Dhammapada*. Boston: Shambhala. (Original work published 1976)
- Camilleri, C., & Malewska-Peyre, H. (1997). Socialization and identity strategies. In J. W. Berry, P. R. Dasen, & T. S. Saraswathi (Eds.), *Handbook of cross-cultural psychology: Vol. 2. Basic processes*



- and human development (2nd ed., pp. 41–67). Boston: Allyn & Bacon.
- Canavan, J. F. (1999). *Oedipal resolution and locus of control as determinants of faith development*. Unpublished doctoral dissertation, New York University.
- Caputi, P., & Oades, L. (2001). Epistemic assumptions: Understanding self and the world. *Journal of Constructivist Psychology, 14*, 127–134.
- Carter, R. T. (1991). Cultural values: A review of empirical research and implications for counseling. *Journal of Counseling and Development, 70*, 164–173.
- Carter, R. T., & Helms, J. E. (1987). The relationship of Black value-orientations to racial identity attitudes. *Measurement and Evaluation in Counseling and Development, 19*, 185–195.
- Caso, A. (2002). Three skeptics' debate tools examined. *Skeptical Inquirer, 26*, 37–41.
- Cassels, A. (1996). *Ideology and international relations in the modern world*. London: Routledge.
- Chandler, E. W., & Dreger, R. M. (1993). Anthropocentrism: Construct validity and measurement. *Journal of Social Behavior and Personality, 8*, 169–188.
- Chapell, M. S., & Takahashi, M. (1998). Differences in worldviews of Japanese and Americans in young, middle-aged, and older cohorts. *Psychological Reports, 83*, 659–665.
- Chapman, A. D. (1981). Value-orientation analysis: The adaptation of an anthropological model for counseling research. *Personnel and Guidance Journal, 59*, 637–642.
- Chulef, A. S., Read, S. J., & Walsh, D. A. (2001). A hierarchical taxonomy of human goals. *Motivation and Emotion, 25*, 191–232.
- Chun, K. M., Organista, P. B., & Marín, G. (Eds.). (2003). *Acculturation*. Washington, DC: American Psychological Association.
- Clark, A. W., Trahair, R. C. S., & Graetz, B. R. (1989). Social Darwinism: A determinant of nuclear arms policy and action. *Human Relations, 42*, 289–303.
- Clark, L. A., & Watson, D. (1995). Constructing validity: Basic issues in objective scale development. *Psychological Assessment, 7*, 309–319.
- Clark, W. R., & Grunstein, M. (2000). *Are we hard-wired? The role of genes in human behavior*. New York: Oxford University Press.
- Coan, R. W. (1974). *The optimal personality*. New York: Columbia University Press.
- Coan, R. W. (1979). *Psychologists*. New York: Wiley.
- Cohen, C., & Regan, T. (2001). *The animal rights debate*. Lanham, MD: Rowman & Littlefield.
- Cohen, G. (1996). *Memory in the real world* (2nd ed.). East Sussex, England: Psychology Press.
- Cole, M. (1996). *Cultural psychology*. Cambridge, MA: Harvard University Press.
- Comfort, A. (1991). *The new joy of sex*. New York: Crown.
- Constantine, M. G. (Ed.). (1999). Spiritual and religious issues in counseling racial and ethnic minority populations [Special issue]. *Journal of Multicultural Counseling and Development, 27*(4).
- Constantine, M. G., Lewis, E., Conner, L. C., & Sanchez, D. (2000). Addressing spiritual and religious issues in counseling African Americans: Implications for counselor training and practice. *Counseling and Values, 45*, 28–38.
- Cornford, F. M. (Trans.). (1961). Parmenides. In E. Hamilton & H. Cairns (Eds.), *The collected dialogues of Plato, including the Letters* (pp. 920–956). New York: Bollingen/Pantheon. (Original translation published 1939)
- Cox, R. H. (1973). *Religious systems and psychotherapy*. Springfield, IL: Charles C Thomas.
- Cross, W. E., Jr., & Vandiver, B. J. (2001). Nigrescence theory and measurement: Introducing the Cross Racial Identity Scale (CRIS). In J. G. Ponterotto, J. M. Casas, L. A. Suzuki, & C. M. Alexander (Eds.), *Handbook of multicultural counseling* (2nd ed., pp. 371–393). Thousand Oaks, CA: Sage.
- Dake, K. (1991). Orienting dispositions in the perception of risk: An analysis of contemporary worldviews and cultural biases. *Journal of Cross-Cultural Psychology, 22*, 61–82.
- Dalrymple, T. (2001). *Life at the bottom*. Chicago: Ivan R. Dee.
- Dana, R. H. (1993). *Multicultural assessment perspectives for professional psychology*. Boston: Allyn & Bacon.
- Dawkins, R. (1987). *The blind watchmaker*. New York: Norton.
- de Ropp, R. S. (1989). *The master game*. New York: Delta/Dell. (Original work published 1968)
- Debats, D. L. (1999). Sources of meaning: An investigation of significant commitments in life. *Journal of Humanistic Psychology, 39*, 30–57.
- Degler, C. N. (1991). *In search of human nature*. New York: Oxford University Press.
- DeSteno, D., & Salovey, P. (1997). Structural dynamism in the concept of self: A flexible model for a malleable concept. *Review of General Psychology, 1*, 389–409.
- Dien, D. S. (1999). Chinese authority-directed orientation and Japanese peer-group orientation: Questioning the notion of collectivism. *Review of General Psychology, 3*, 372–385.
- Dilthey, W. (1970). Culture and the production of world views. In D. P. Verene (Ed.), *Man and culture* (pp. 103–132). New York: Laurel/Dell. (Reprinted from *Philosophy of existence*, trans. by

- W. Kluback & M. Weinbaum, 1957, New York: Twayne)
- Dion, K. K., & Dion, K. L. (1991). Psychological individualism and romantic love. *Journal of Social Behavior and Personality*, 6, 17–33.
- Doblin, R. (1991). Pahnke's "Good Friday experiment": A long-term follow-up and methodological critique. *Journal of Transpersonal Psychology*, 23, 1–28.
- Donnelly, P. J. L. (1992). The impact of culture on psychotherapy: Korean clients' expectations in psychotherapy. *Journal of the New York State Nurses Association*, 23(2), 12–15.
- Double, R. (1996). *Metaphilosophy and free will*. New York: Oxford University Press.
- Douglas, N., & Slinger, P. (1979). *Sexual secrets*. Rochester, VT: Destiny.
- Driskell, J. E., & Salas, E. (1992). Collective behavior and team performance. *Human Factors*, 34, 277–288.
- Dunlap, R. E., Van Liere, K. D., Mertig, A. G., & Jones, R. E. (2000). Measuring endorsement of the New Ecological Paradigm: A revised NEP scale. *Journal of Social Issues*, 56, 425–442.
- Easterlin, B. L., & Cardeña, E. (1998–1999). Cognitive and emotional differences between short- and long-term Vipassana meditators. *Imagination, Cognition and Personality*, 18, 69–81.
- Eby, L. T., & Dobbins, G. H. (1997). Collectivist orientation in teams: An individual and group-level analysis. *Journal of Organizational Behavior*, 18, 275–295.
- Eidelson, R. J., & Eidelson, J. I. (2003). Dangerous ideas: Five beliefs that propel groups toward conflict. *American Psychologist*, 58, 182–192.
- Ellis, A. (1980). Psychotherapy and atheistic values: A response to A. E. Bergin's "Psychotherapy and religious values." *Journal of Consulting and Clinical Psychology*, 48, 635–639.
- Engels, D. W. (Ed.). (2001). Spirituality in counseling [Special issue]. *Counseling and Values*, 45(3).
- Figueira, S. A. (1990). Common (under)ground in psychoanalysis: The question of a *Weltanschauung* revisited. *International Journal of Psycho-Analysis*, 71, 65–71.
- Fischer, A. R., Jome, L. M., & Atkinson, D. R. (1998). Reconceptualizing multicultural counseling: Universal healing conditions in a culturally specific context. *The Counseling Psychologist*, 26, 525–528.
- Fisher, S., & Greenberg, R. P. (1996). *Freud scientifically reappraised*. New York: Wiley.
- Fontana, A. F., Dowds, B. N., & Bethel, M. H. (1976). A. A. and group therapy for alcoholics: An application of the World Hypotheses Scale. *Journal of Studies on Alcohol*, 37, 675–682.
- Fowler, J. W. (1981). *Stages of faith*. San Francisco: Harper & Row.
- Francoeur, R. T. (1992). The religious suppression of Eros. In D. Steinberg (Ed.), *The erotic impulse* (pp. 162–174). New York: Tarcher/Putnam.
- Frank, J. D. (1973). *Persuasion and healing* (rev. ed.). New York: Schocken.
- Frankl, V. E. (1967). *The doctor and the soul*. New York: Bantam. (Original work published 1946)
- Frankl, V. E. (1969). *The will to meaning*. New York: New American Library.
- Fransella, F., & Dalton, P. (1990). *Personal construct counselling in action*. London: Sage.
- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, 56, 218–226.
- Freud, S. (1933). *New introductory lectures on psychoanalysis* (W. J. H. Sprott, Trans.). New York: Norton.
- Freud, S. (1959). Inhibitions, symptoms and anxiety. In J. Strachey (Ed. and Trans.), *The standard edition of the complete psychological works of Sigmund Freud* (Vol. 20, pp. 77–175). London: Hogarth. (Original work published 1926)
- Freud, S. (1964). New introductory lectures on psycho-analysis. In J. Strachey (Ed. and Trans.), *The standard edition of the complete psychological works of Sigmund Freud* (Vol. 22, pp. 3–182). London: Hogarth. (Original work published 1933)
- Frye, N. (1957). *Anatomy of criticism*. Princeton, NJ: Princeton University Press.
- Furnham, A. (1993). Just world beliefs in twelve societies. *Journal of Social Psychology*, 133, 317–329.
- Furnham, A., & Procter, E. (1989). Belief in a just world: Review and critique of the individual difference literature. *British Journal of Social Psychology*, 28, 365–384.
- Gabora, L. M. (2000). Conceptual closure: How memories are woven into an interconnected worldview. *Annals of the New York Academy of Sciences*, 901, 42–53.
- Gardella, P. (1985). *Innocent ecstasy*. New York: Oxford University Press.
- Gerber, L. (1994). Psychotherapy with Southeast Asian refugees: Implications for treatment of Western patients. *American Journal of Psychotherapy*, 48, 280–293.
- Gergen, K. J. (1985). The social constructionist movement in modern psychology. *American Psychologist*, 40, 266–275.
- Gergen, K. J. (1990). Toward a postmodern psychology. *Humanistic Psychologist*, 18(1), 23–34.
- Gifford-May, D., & Thompson, N. L. (1994). "Deep states" of meditation: Phenomenological reports of experience. *Journal of Transpersonal Psychology*, 26, 117–138.
- Gilbert, D. T., Brown, R. P., Pinel, E. C., & Wilson, T. D. (2000). The illusion of external agency.

- Journal of Personality and Social Psychology*, 79, 690–700.
- Gilligan, C. (1982). *In a different voice*. Cambridge, MA: Harvard University Press.
- Goldfried, M. R., & Newman, C. (1986). Psychotherapy integration: An historical perspective. In J. C. Norcross (Ed.), *Handbook of eclectic psychotherapy* (pp. 25–61). New York: Brunner/Mazel.
- Gollwitzer, P. M. (1999). Implementation intentions: Strong effects of simple plans. *American Psychologist*, 54, 493–503.
- González, R. C., Biever, J. L., & Gardner, G. T. (1994). The multicultural perspective in therapy: A social constructionist approach. *Psychotherapy: Theory, Research, Practice, Training*, 31, 515–524.
- Graham, M. J. (1999). The African-centered worldview: Toward a paradigm for social work. *Journal of Black Studies*, 30, 103–122.
- Greenberg, J., Arndt, J., Schimel, J., Pyszczynski, T., & Solomon, S. (2001). Clarifying the function of mortality salience-induced worldview defense: Renewed suppression or reduced accessibility of death-related thoughts? *Journal of Experimental Social Psychology*, 37, 70–76.
- Greenberg, J., Pyszczynski, T., & Solomon, S. (1997). Terror management theory of self-esteem and cultural worldviews: Empirical assessments and conceptual refinements. In P. M. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 29, pp. 61–141). San Diego, CA: Academic Press.
- Greenberg, J., Pyszczynski, T., Solomon, S., Rosenblatt, A., Veeder, M., Kirkland, S., & Lyon, D. (1990). Evidence for terror management theory II: The effects of mortality salience on reactions to those who threaten or bolster the cultural worldview. *Journal of Personality and Social Psychology*, 58, 308–318.
- Greve, W. (2001). Traps and gaps in action explanations: Theoretical problems of a psychology of human action. *Psychological Review*, 108, 435–451.
- Grieger, I., & Ponterotto, J. G. (1995). A framework for assessment in multicultural counseling. In J. G. Ponterotto, J. M. Casas, L. A. Suzuki, & C. M. Alexander (Eds.), *Handbook of multicultural counseling* (pp. 357–374). Thousand Oaks, CA: Sage.
- Grof, S., & Valier, M. L. (Eds.). (1988). *Human survival and consciousness evolution*. Albany: State University of New York Press.
- Gushue, G. V., & Sciarra, D. T. (1995). Culture and families: A multidimensional approach. In J. G. Ponterotto, J. M. Casas, L. A. Suzuki, & C. M. Alexander (Eds.), *Handbook of multicultural counseling* (pp. 586–606). Thousand Oaks, CA: Sage.
- Haimeri, C. J., & Valentine, E. R. (2001). The effect of contemplative practice on intrapersonal, interpersonal, and transpersonal dimensions of the self-concept. *Journal of Transpersonal Psychology*, 33, 37–52.
- Halifax, J. (1979). *Shamanic voices*. New York: Dutton.
- Hall, C. S., & Lindzey, G. (1978). *Theories of personality* (3rd ed.). New York: Wiley.
- Harrison, A. O., Wilson, M. N., Pine, C. J., Chan, S. Q., & Buriel, R. (1990). Family ecologies of ethnic minority children. *Child Development*, 61, 347–362.
- Hickson, J., Housley, W., & Wages, D. (2000). Counselors' perceptions of spirituality in the therapeutic process. *Counseling and Values*, 45, 58–66.
- Hodges, H. A. (1944). *Wilhelm Dilthey*. New York: Oxford University Press.
- Hofstede, G. (1984). *Culture's consequences* (abridged ed.). Newbury Park, CA: Sage.
- Holm, N. G., & Björkqvist, K. (Eds.). (1996). *World views in modern society*. Abo/Turku, Finland: Abo Akademi University.
- Hong, G.-Y. (1997). Just-world beliefs and attributions of causal responsibility among Korean adolescents. *Cross-Cultural Research*, 31, 121–136.
- Hong, Y.-Y., Morris, M. W., Chiu, C.-Y., & Benet-Martinez, V. (2000). Multicultural minds: A dynamic constructivist approach to culture and cognition. *American Psychologist*, 55, 709–720.
- Hood, R. W., Jr. (1974). Psychological strength and the report of intense religious experience. *Journal for the Scientific Study of Religion*, 13, 65–71.
- Hood, R. W., Jr. (1975). The construction and preliminary validation of a measure of reported mystical experience. *Journal for the Scientific Study of Religion*, 14, 29–41.
- Hood, R. W., Jr., Spilka, B., Hunsberger, B., & Gorsuch, R. L. (1996). *The psychology of religion: An empirical approach* (2nd ed.). New York: Guilford Press.
- Howard, G. S. (1993). Steps toward a science of free will. *Counseling and Values*, 37, 116–128.
- Howard, G. (Ed.). (1994). Freewill and psychology [Special issue]. *Journal of Theoretical and Philosophical Psychology*, 14(1).
- Hui, C. H. (1988). Measurement of individualism-collectivism. *Journal of Research in Personality*, 22, 17–36.
- Humanism and its aspirations. (2003). *The Humanist*, 63(3), 13–14.
- Hunt, H., Dougan, S., Grant, K., & House, M. (2002). Growth enhancing versus dissociative states of consciousness: A questionnaire study. *Journal of Humanistic Psychology*, 42, 90–106.
- Hunt, M. O. (2000). Status, religion, and the “belief in a just world”: Comparing African Americans,

- Latinos, and Whites. *Social Science Quarterly*, 81, 325–343.
- Hunter, J. D. (1994). *Before the shooting begins*. New York: Free Press/Macmillan.
- Huntington, S. P. (1996). *The clash of civilizations and the remaking of world order*. New York: Simon & Schuster.
- Hyde, J. S., & DeLamater, J. D. (2003). *Understanding human sexuality* (8th ed.). Boston: McGraw-Hill.
- Ibrahim, F. A. (1991). Contribution of cultural world view to generic counseling and development. *Journal of Counseling and Development*, 70, 13–19.
- Ibrahim, F. A. (1999). Transcultural counseling: Existential worldview theory and cultural identity. In J. McFadden (Ed.), *Transcultural counseling* (2nd ed., pp. 23–57). Alexandria, VA: American Counseling Association.
- Ibrahim, F. A., Roysircar-Sodowsky, G., & Ohnishi, H. (2001). Worldview: Recent developments and needed directions. In J. G. Ponterotto, J. M. Casas, L. A. Suzuki, & C. M. Alexander (Eds.), *Handbook of multicultural counseling* (2nd ed., pp. 425–456). Thousand Oaks, CA: Sage.
- Ignatieff, M. (1993). *Blood and belonging*. New York: Farrar, Straus & Giroux.
- Inclan, J. (1985). Variations in value orientations in mental health work with Puerto Ricans. *Psychotherapy*, 22, 324–334.
- Jackson, A. P., & Meadows, F. B., Jr. (1991). Getting to the bottom to understand the top. *Journal of Counseling and Development*, 70, 72–76.
- Jackson, L. E., & Coursey, R. D. (1988). The relationship of God centered and internal locus of control to intrinsic religious orientation, coping and purpose in life. *Journal for the Scientific Study of Religion*, 27, 399–410.
- Janoff-Bulman, R. (1989). Assumptive worlds and the stress of traumatic events: Applications of the schema construct. *Social Cognition*, 7, 113–136.
- Janoff-Bulman, R. (1992). *Shattered assumptions*. New York: Free Press.
- Janssen, M., De Wit, J., Hospers, H. J., & Van Griensven, F. (2001). Educational status and young Dutch gay men's beliefs about using condoms. *AIDS Care*, 13, 41–56.
- Ji, L.-J., Peng, K., & Nisbett, R. E. (2000). Culture, control, and perception of relationships in the environment. *Journal of Personality and Social Psychology*, 78, 943–955.
- Johnson, J. A., Germer, C. K., Efran, J. S., & Overton, W. F. (1988). Personality as the basis for theoretical predilections. *Journal of Personality and Social Psychology*, 55, 824–835.
- Jung, C. G. (1954). Fundamental questions of psychotherapy. In R. F. C. Hull (Trans.), *The collected works of C. G. Jung* (Vol. 16, pp. 111–125). New York: Princeton University Press. (Original work published 1951)
- Jung, C. G. (1954). Psychotherapy and a philosophy of life. In R. F. C. Hull (Trans.), *The collected works of C. G. Jung* (Vol. 16, pp. 76–83). New York: Princeton University Press. (Original work published 1942)
- Jung, C. G. (1971). *The collected works of C. G. Jung: Vol. 6. Psychological types* (R. F. C. Hull, Trans.). New York: Princeton University Press. (Original work published 1921)
- Kagee, A., & Dixon, D. N. (2000). Worldview and health promoting behavior: A causal model. *Journal of Behavioral Medicine*, 23, 163–179.
- Kagitçibasi, C. (1997). Individualism and collectivism. In J. W. Berry, M. H. Segall, & C. Kagitçibasi (Eds.), *Handbook of cross-cultural psychology: Vol. 3. Social behavior and applications* (2nd ed., pp. 1–49). Boston: Allyn & Bacon.
- Kahoe, R. D. (1987). Toward a radical psychotheology. *Psychologists Interested in Religious Issues Newsletter*, 12(3), 2–6.
- Kazdin, A. E. (Ed.). (2000). *Encyclopedia of psychology* (Vols. 1–8). Washington, DC: American Psychological Association.
- Kellert, S. R. (1997). *Kinship to mastery*. Washington, DC: Island Press.
- Kelly, G. A. (1955). *The psychology of personal constructs: Vol. 1. A theory of personality*. New York: Norton.
- Kelly, G. A. (1963). Introduction. In *A theory of personality: The psychology of personal constructs* (pp. xi–xii). New York: Norton.
- Kemmelmeier, M., Burnstein, E., Krumov, K., Genkova, P., Kanagawa, C., Hirshberg, M. S., et al. (2003). Individualism, collectivism, and authoritarianism in seven societies. *Journal of Cross-Cultural Psychology*, 34, 304–322.
- Kernahan, C., Bettencourt, B. A., & Dorr, N. (2000). Benefits of allocentrism for the subjective well-being of African Americans. *Journal of Black Psychology*, 26, 181–193.
- Kimble, G. A. (1989). Psychology from the standpoint of a generalist. *American Psychologist*, 44, 491–499.
- Kluckhohn, F. R. (1950). Dominant and substitute profiles of cultural orientations: Their significance for the analysis of social stratification. *Social Forces*, 28, 376–393.
- Kluckhohn, F. R., & Strodtbeck, F. L. (1973). *Variations in value orientations*. Westport, CT: Greenwood Press. (Original work published 1961)
- Koltko, M. E. (1990). How religious beliefs affect psychotherapy. *Psychotherapy: Theory/Research/Practice/Training*, 27, 132–141.
- Koltko, M. E. (1991, August). *How are transpersonal experiences and personal maturity related?* Paper presented at the 99th Annual Convention of



- the American Psychological Association, San Francisco, CA. (ERIC Document Reproduction Service No. ED 335 566)
- Koltko-Rivera, M. E. (1998). Maslow's "transhumanism": Was transpersonal psychology conceived as "a psychology without people in it"? *Journal of Humanistic Psychology, 38*(1), 71–80.
- Koltko-Rivera, M. E. (2000). The Worldview Assessment Instrument (WAI): The development and preliminary validation of an instrument to assess world view components relevant to counseling and psychotherapy (Doctoral dissertation, New York University, 2000). *Dissertation Abstracts International, 61*(04), 2266B. (UMI Microform No. 9968433)
- Koltko-Rivera, M. E. (2003). *An agenda for worldview-oriented research in counseling and psychotherapy*. Manuscript submitted for publication.
- Koltko-Rivera, M. E., Gromadzin, B. J., & Passmore, L. (2002, March). *Genomic information, timeframes, personality, and worldviews: Effects on health-related decisions*. Symposium presented at the meeting of the Southeastern Psychological Association, Kissimmee, FL.
- Kontos, A. P., & Breland-Noble, A. M. (2002). Racial/ethnic diversity in applied sport psychology: A multicultural introduction to working with athletes of color. *Sport Psychologist, 16*, 296–315.
- Kopplin, D. (1976, September). *Religious orientation of college students and related personality characteristics*. Paper presented at the 84th Annual Convention of the American Psychological Association, Washington, DC.
- Kottler, J. A., & Hazler, R. J. (2001). The therapist as a model of humane values and humanistic behavior. In K. J. Schneider, J. F. T. Bugental, & J. F. Pierson (Eds.), *The handbook of humanistic psychology* (pp. 355–369). Thousand Oaks, CA: Sage.
- Kramer, D. A., Kahlbaugh, P. E., & Goldston, R. B. (1992). A measure of paradigm beliefs about the social world. *Journal of Gerontology: Psychological Sciences, 47*, 180–189.
- Kramer, D. A., & Melchior, J. (1990). Gender, role conflict, and the development of relativistic and dialectical thinking. *Sex Roles, 23*, 553–575.
- Krasner, L., & Houts, A. C. (1984). A study of the "value" systems of behavioral scientists. *American Psychologist, 39*, 840–850.
- Krippner, S. C. (2002). Conflicting perspectives on shamans and shamanism: Points and counterpoints. *American Psychologist, 57*, 962–977.
- Kuhn, J. L. (2001). Toward an ecological humanistic psychology. *Journal of Humanistic Psychology, 41*, 9–24.
- Kvale, S. (1995). Themes of postmodernity. In W. T. Anderson (Ed.), *The truth about The Truth* (pp. 18–25). New York: Tarcher/Putnam.
- La Greca, M. J. (1999). Idiocentrism-allocentrism: As a moderator of productivity in groups. *Dissertation Abstracts International, 59*(08), 4519B.
- Laythe, B., Finkel, D., & Kirkpatrick, L. A. (2001). Predicting prejudice from religious fundamentalism and right-wing authoritarianism: A multiple-regression approach. *Journal for the Scientific Study of Religion, 40*, 1–10.
- Leavitt, F. (2001). *Evaluating scientific research*. Upper Saddle River, NJ: Prentice Hall.
- Lerner, M. J. (1980). *The belief in a just world*. New York: Plenum.
- Lerner, M. J., & Miller, D. T. (1978). Just world research and the attribution process: Looking back and ahead. *Psychological Bulletin, 85*, 1030–1051.
- Levenson, H. (1973). Multidimensional locus of control in psychiatric patients. *Journal of Consulting and Clinical Psychology, 41*, 397–404.
- Levy, G. D. (2000). Individual differences in race schematicity as predictors of African American and White children's race-relevant memories and peer preferences. *Journal of Genetic Psychology, 161*, 400–419.
- Lieberman, J. D., Arndt, J., Personius, J., & Cook, A. (2001). Vicarious annihilation: The effect of mortality salience on perceptions of hate crimes. *Law and Human Behavior, 25*, 547–566.
- Lin, Y. N. (1988). Family socio-economic background, parental involvement and students' academic performance by elementary school children. *Journal of Counselling, 11*, 95–141.
- Lindsey, D. T., & Brown, A. M. (2002). Color naming and the phototoxic effects of sunlight on the eye. *Psychological Science, 13*, 506–512.
- Liu, W. M. (2001). Expanding our understanding of multiculturalism: Developing a social class worldview model. In D. B. Pope-Davis & H. L. K. Coleman (Eds.), *The intersection of race, class, and gender in multicultural counseling* (pp. 127–170). Thousand Oaks, CA: Sage.
- Liu, W. M. (2002). The social class-related experiences of men: Integrating theory and practice. *Professional Psychology: Research and Practice, 33*, 355–360.
- Lonner, W. J., & Adamopoulos, J. (1997). Culture as antecedent to behavior. In J. W. Berry, Y. H. Poortinga, & J. Panday (Eds.), *Handbook of cross-cultural psychology: Vol. 1. Theory and method* (2nd ed., pp. 43–83). Boston: Allyn & Bacon.
- Lovinger, R. J. (1984). *Working with religious issues in therapy*. New York: Aronson.
- Lovinger, R. J. (1990). *Religion and counseling*. New York: Continuum.
- Lukoff, D., & Lu, F. G. (1988). Transpersonal psychology research review: Topic: Mystical experience. *Journal of Transpersonal Psychology, 20*, 161–184.



- Lukoff, D., Turner, R., & Lu, F. (1992). Transpersonal psychology research review: Psychoreligious dimensions of healing. *Journal of Transpersonal Psychology, 24*, 41–60.
- Lyddon, W. J., & Adamson, L. A. (1992). Worldview and counseling preference: An analogue study. *Journal of Counseling and Development, 71*, 41–47.
- Lyubomirsky, S. (2001). Why are some people happier than others? The role of cognitive and motivational processes in well-being. *American Psychologist, 56*, 239–249.
- Macdonald, A. (1996). *The Turner diaries* (2nd ed.). New York: Barricade Books.
- Mahalik, J. R., Worthington, R. L., & Crump, S. (1999). Influence of racial/ethnic membership and “therapist culture” on therapists’ worldview. *Journal of Multicultural Counseling and Development, 27*, 2–17.
- Mahoney, M. J. (1993). Response to “Steps toward a science of free will”: The enduring power of agency and control in theoretical and applied psychology. *Counseling and Values, 38*, 63–67.
- Mallory, M. M. (1977). *Christian mysticism*. Amsterdam: Van Gorcum Assen.
- Mancuso, J. C. (1977). Current motivational models in the elaboration of personal construct theory. In A. W. Landfield (Ed.), *Nebraska Symposium on Motivation 1976: Vol. 24. Personal construct psychology* (pp. 43–97). Lincoln: University of Nebraska Press.
- Marková, I. (2000). The individual and society in psychological theory. *Theory and Psychology, 10*, 107–116.
- Martin, J. D., Blair, G. E., Nevels, R. M., & Brant, M. M. (1987). A study of the relationship between a personal philosophy of human nature (good or evil) and self-esteem. *Psychological Reports, 61*, 447–451.
- Maslow, A. H. (1968). *Toward a psychology of being* (2nd ed.). New York: Van Nostrand Reinhold.
- Maslow, A. H. (1969). The farther reaches of human nature. *Journal of Transpersonal Psychology, 1*, 1–9.
- Maslow, A. H. (1970a). *Motivation and personality* (2nd ed.). New York: Harper & Row.
- Maslow, A. H. (1970b). *Religions, values, and peak-experiences*. New York: Penguin Books.
- Maslow, A. H. (1971). Theory Z. In A. H. Maslow, *The farther reaches of human nature* (pp. 280–295). New York: Viking. (Reprinted from *Journal of Transpersonal Psychology, 1969, 1*(2), 31–47)
- Masten, A. S. (2001). Ordinary magic: Resilience processes in development. *American Psychologist, 56*, 227–238.
- May, T., & Koltko-Rivera, M. E. (2003, March). *Attitudes about human cloning: Predictors from multiple domains of personality theory and research*. Poster session presented at the meeting of the Southeastern Psychological Association, New Orleans, LA.
- McClain, E. W., & Andrews, H. B. (1969). Some personality correlates of peak experiences: A study in self-actualization. *Journal of Clinical Psychology, 25*, 36–38.
- McClelland, D. C. (1951). *Personality*. New York: Dryden.
- McCrae, R. R., & Costa, P. T., Jr. (1999). A five-factor theory of personality. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality* (2nd ed., pp. 139–153). New York: Guilford Press.
- McCutcheon, L. E., & Ashe, D. (1999). Can individualists find satisfaction participating in interactive team sports? *Journal of Sport Behavior, 22*, 570–577.
- McGuire, M. T. (1979). Stephen Pepper, world hypotheses and the structure of metapsychology. *International Review of Psycho-Analysis, 6*, 217–230.
- McIntosh, D. N. (1997). Religion-as-schema, with implications for the relation between religion and coping. In B. Spilka & D. N. McIntosh (Eds.), *The psychology of religion: Theoretical perspectives* (pp. 171–183). Boulder, CO: Westview Press/Perseus. (Reprinted and edited from *International Journal for the Psychology of Religion, 1995, 5*, 1–16)
- Messer, S. B. (1992). A critical examination of belief structures in integrative and eclectic psychotherapy. In J. C. Norcross & M. R. Goldfried (Eds.), *Handbook of psychotherapy integration* (pp. 130–165). New York: Basic Books.
- Messer, S. B. (2000). Applying the visions of reality to a case of brief therapy. *Journal of Psychotherapy Integration, 10*, 55–70.
- Miller, D. W. (1999, February 26). Book rebuts assumption that poor people are likely to be poor parents. *Chronicle of Higher Education*, p. A17.
- Miller, J. G. (1999). Cultural psychology: Implications for basic psychological theory. *Psychological Science, 10*, 85–91.
- Miller, J. G. (2001). The cultural grounding of social psychological theory. In A. Tesser & N. Schwarz (Eds.), *Blackwell handbook of social psychology: Intraindividual processes* (pp. 22–43). Malden, MA: Blackwell.
- Miller, M. E., & West, A. N. (1993). Influences of world view on personality, epistemology, and choice of profession. In J. Demick & P. M. Miller (Eds.), *Development in the workplace* (pp. 3–19). Hillsdale, NJ: Erlbaum.
- Mischel, W. (1999). *Introduction to personality* (6th ed.). Fort Worth, TX: Harcourt.
- Mischel, W., & Shoda, Y. (1995). A cognitive-affective system theory of personality: Reconceptualizing situations, dispositions, dynamics, and invari-

- ance in personality structure. *Psychological Review*, 102, 246–268.
- Mischel, W., & Shoda, Y. (1998). Reconciling processing dynamics and personality dispositions. *Annual Review of Psychology*, 49, 229–258.
- Mischel, W., & Shoda, Y. (1999). Integrating dispositions and processing dynamics within a unified theory of personality: The cognitive-affective personality system. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality* (2nd ed., pp. 197–218). New York: Guilford Press.
- Mishra, R. C. (1997). Cognition and cognitive development. In J. W. Berry, P. Dasen, & T. Saraswathi (Eds.), *Handbook of cross-cultural psychology: Vol. 2. Basic processes and human development* (2nd ed., pp. 143–175). Boston: Allyn & Bacon.
- Montgomery, D. E., Fine, M. A., & James-Myers, L. (1990). The development and validation of an instrument to assess an optimal Afrocentric worldview. *Journal of Black Psychology*, 17(1), 37–54.
- Moomal, Z. (1999). The relationship between meaning in life and mental well-being. *South African Journal of Psychology*, 29, 36–41.
- Morgeson, F. P., Seligman, M. E. P., Sternberg, R. J., Taylor, S. E., & Manning, C. M. (1999). Lessons learned from a life in psychological science: Implications for young scientists. *American Psychologist*, 54, 106–116.
- Morris, C. W. (1973). *Varieties of human value*. Chicago: University of Chicago Press. (Original work published 1956)
- Moss, D. (2001). The roots and genealogy of humanistic psychology. In K. J. Schneider, J. F. T. Bugental, & J. F. Pierson (Eds.), *The handbook of humanistic psychology* (pp. 5–20). Thousand Oaks, CA: Sage.
- Moyers, B. (1993). *Healing and the mind*. New York: Doubleday.
- Neimeyer, R. A. (1985). *The development of personal construct psychology*. Lincoln: University of Nebraska Press.
- Neimeyer, R. A., & Mahoney, M. J. (1995). *Constructivism in psychotherapy*. Washington, DC: American Psychological Association.
- Nelson, T. O. (1996). Consciousness and metacognition. *American Psychologist*, 51, 102–116.
- Nidich, S., Seeman, W., & Dreskin, T. (1973). Influence of transcendental meditation: A replication. *Journal of Counseling Psychology*, 20, 565–566.
- Nielsen, M. E. (2001). Religion's role in the terrorist attack of September 11, 2001. *North American Journal of Psychology*, 3, 377–384.
- Nietzsche, F. (1956). The birth of tragedy. In F. Nietzsche, *The birth of tragedy and The genealogy of morals* (pp. 1–146). Garden City, NY: Anchor. (Original work published 1872)
- Niles, F. S. (1998). Individualism-collectivism revisited. *Cross-Cultural Research*, 32, 315–341.
- Nisbett, R. E. (2003). *The geography of thought*. New York: Free Press.
- Nisbett, R. E., Peng, K., Choi, I., & Norenzayan, A. (2001). Culture and systems of thought: Holistic versus analytic cognition. *Psychological Review*, 108, 291–310.
- Nobles, W. W. (1991). African philosophy: Foundations for Black psychology. In R. L. Jones (Ed.), *Black psychology* (3rd ed., pp. 47–63). Berkeley, CA: Cobb & Henry.
- Noddings, N. (1984). *Caring*. Berkeley: University of California Press.
- Noe, F. P., & Snow, R. (1990). The new environmental paradigm and further scale analysis. *Journal of Environmental Education*, 21(4), 20–26.
- Norman, D. A. (1981). Categorization of action slips. *Psychological Review*, 88, 1–15.
- Norman, D. A. (1982). *Learning and memory*. San Francisco: Freeman.
- Ochsner, K. N., & Lieberman, M. D. (2001). The emergence of social cognitive neuroscience. *American Psychologist*, 56, 717–734.
- Okazaki, S., & Sue, S. (1995). Methodological issues in assessment research with ethnic minorities. *Psychological Assessment*, 7, 367–375.
- Ortiz, J. M., & Johnson, J. A. (1991). Philosophical worldview determines attitudes toward using background music before, during, and after counseling. *Psychology of Music*, 19, 159–163.
- Overton, W. F. (1984). World views and their influence on psychological theory and research: Kuhn-Lakatos-Laudan. *Advances in Child Development and Behavior*, 18, 191–226.
- Overton, W. F. (1991). Historical and contemporary perspectives on developmental theory and research strategies. In R. M. Downs, L. S. Liben, & D. S. Palermo (Eds.), *Visions of aesthetics, the environment and development* (pp. 263–311). Hillsdale, NJ: Erlbaum.
- Oyserman, D. (1993). The lens of personhood: Viewing the self and others in a multicultural society. *Journal of Personality and Social Psychology*, 65, 993–1009.
- Page, R. C., Weiss, J. F., Wright, L. S., McAuliffe, E., Ugyan, J., & MacLachlan, M. (1997). Self-awareness of participants in a long-term Tibetan Buddhist retreat. *Journal of Transpersonal Psychology*, 29, 85–98.
- Palmer, G., & Braud, W. (2002). Exceptional human experiences, disclosure, and a more inclusive view of physical, psychological, and spiritual well-being. *Journal of Transpersonal Psychology*, 34, 29–61.
- Park, D. C. (1999). Acts of will? *American Psychologist*, 54, 461.
- Pedersen, P. (1999). Culture-centered interventions as a fourth dimension of psychology. In P. Ped-

- ersen (Ed.), *Multiculturalism as a fourth force* (pp. 3–18). Philadelphia: Brunner/Mazel.
- Pedersen, P. B. (2000, August). *Multiculturalism as a generic and permanent perspective of global psychology*. Paper presented at the 108th Annual Convention of the American Psychological Association, Washington, DC.
- Peng, K., & Nisbett, R. E. (1999). Culture, dialectics, and reasoning about contradiction. *American Psychologist*, *54*, 741–754.
- Pepper, S. C. (1970). *World hypotheses: A study in evidence*. Berkeley: University of California Press. (Original work published 1942)
- Peterson, B. (1993, July/August). Body and soul. *Utne Reader*, pp. 72–77.
- Phillips, F. B. (1990). NTU psychotherapy: An Afrocentric approach. *Journal of Black Psychology*, *17*(1), 55–74.
- Pinker, S. (2002). *The blank slate*. New York: Viking.
- Plous, S. (Ed.). (2003). *Understanding prejudice and discrimination*. Boston: McGraw-Hill.
- Pollan, M. (2002, November 10). An animal's place. *New York Times Magazine*, pp. 58–65, 100, 110–111.
- Pyszczynski, T., Greenberg, J., & Solomon, S. (1999). A dual-process model of defense against conscious and unconscious death-related thoughts: An extension of terror management theory. *Psychological Review*, *106*, 835–845.
- Raskin, J. D. (2001). The modern, the postmodern, and George Kelly's personal construct psychology. *American Psychologist*, *56*, 368–369.
- Regan, T. (1982). *All that dwell therein*. Berkeley: University of California Press.
- Richards, D. G. (1990). A universal forces dimension of locus of control in a population of spiritual seekers. *Psychological Reports*, *67*, 847–850.
- Richards, P. S., & Bergin, A. E. (1997). *A spiritual strategy for counseling and psychotherapy*. Washington, DC: American Psychological Association.
- Richards, P. S., & Bergin, A. E. (Eds.). (2000). *Handbook of psychotherapy and religious diversity*. Washington, DC: American Psychological Association.
- Ricketts, M. (1989). Epistemological values of feminists in psychology. *Psychology of Women Quarterly*, *13*, 401–415.
- Rokeach, M. (1973). *The nature of human values*. New York: Free Press.
- Rose, E. M., Westefeld, J. S., & Ansley, T. N. (2001). Spiritual issues in counseling: Clients' beliefs and practices. *Journal of Counseling Psychology*, *48*, 61–71.
- Rose, H., & Rose, S. (Eds.). (2000). *Alas, poor Darwin: Arguments against evolutionary psychology*. New York: Harmony Books.
- Rosenblatt, A., Greenberg, J., Solomon, S., Pyszczynski, T., & Lyon, D. (1989). Evidence for terror management theory I: The effects of mortality salience on reactions to those who violate or uphold cultural values. *Journal of Personality and Social Psychology*, *57*, 681–690.
- Rothbart, M. K., Ahadi, S. A., & Evans, D. E. (2000). Temperament and personality: Origins and outcomes. *Journal of Personality and Social Psychology*, *78*, 122–135.
- Rotter, J. B. (1966). Generalized expectations for internal versus external control of reinforcement. *Psychological Monographs*, *80*, 1–28.
- Rouhana, N. N., & Bar-Tal, D. (1998). Psychological dynamics of intractable ethnonational conflicts: The Israeli-Palestinian case. *American Psychologist*, *53*, 761–770.
- Rousseau, D. M. (2001). Schema, promise and mutuality: The building blocks of the psychological contract. *Journal of Occupational and Organizational Psychology*, *74*, 511–541.
- Royce, J. R. (1964). *The encapsulated man*. Princeton, NJ: Van Nostrand.
- Royce, J. R., Coward, H., Egan, E., Kessel, F., & Mos, L. (1978). Psychological epistemology: A critical review of the empirical literature and the theoretical issues. *Genetic Psychology Monographs*, *97*, 265–353.
- Ruark, J. K. (1999, February 12). Redefining the good life: A new focus in the social sciences. *Chronicle of Higher Education*, pp. A13–A15.
- Rudmin, F. W. (2003). Critical history of the acculturation psychology of assimilation, separation, integration, and marginalization. *Review of General Psychology*, *7*, 3–37.
- Russell, P. A., Deregowski, J. B., & Kinnear, P. R. (1997). Perception and aesthetics. In J. W. Berry, P. R. Dasen, & T. S. Saraswathi (Eds.), *Handbook of cross-cultural psychology: Vol. 2. Basic processes and human development* (2nd ed., pp. 107–142). Boston: Allyn & Bacon.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, *55*, 68–78.
- Rychlak, J. F. (1979). *Discovering free will and personal responsibility*. New York: Oxford University Press.
- Rychlak, J. F. (1997). *In defense of human consciousness*. Washington, DC: American Psychological Association.
- Rychlak, J. F. (2000). A psychotherapist's lessons from the philosophy of science. *American Psychologist*, *55*, 1126–1132.
- Rychlak, J. F. (2003). *The human image in postmodern America*. Washington, DC: American Psychological Association.
- Ryder, A. G., Alden, L. E., & Paulhus, D. L. (2000). Is acculturation unidimensional or bidimensional? A head-to-head comparison in the prediction of

- personality, self-identity, and adjustment. *Journal of Personality and Social Psychology*, 79, 49–65.
- Sacks, H. L. (1979). The effect of spiritual exercises on the integration of self-system. *Journal for the Scientific Study of Religion*, 18, 46–50.
- Sampson, E. E. (2000). Reinterpreting individualism and collectivism: Their religious roots and monologic versus dialogic person-other relationship. *American Psychologist*, 55, 1425–1432.
- Sarason, S. B. (1984). If it can be studied or developed, should it be? *American Psychologist*, 39, 477–485.
- Sarbin, T. R. (1977). Contextualism: A world view for modern psychology. In A. W. Landfield (Ed.), *Nebraska Symposium on Motivation 1976: Vol. 24. Personal construct psychology* (pp. 1–41). Lincoln: University of Nebraska Press.
- Sartre, J.-P. (1966). *Being and nothingness* (H. E. Barnes, Trans.). New York: Washington Square Press. (Original work published 1943)
- Scherer, R. F., & Petrick, J. A. (2001). The effects of gender role orientation on team schema: A multivariate analysis of indicators in a U.S. federal health care organization. *Journal of Social Psychology*, 141, 7–22.
- Schliemann, A., Carraher, D., & Ceci, S. J. (1997). Everyday cognition. In J. W. Berry, P. Dasen, & T. Saraswathi (Eds.), *Handbook of cross-cultural psychology: Vol. 2. Basic processes and human development* (2nd ed., pp. 177–216). Boston: Allyn & Bacon.
- Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. *Advances in Experimental Social Psychology*, 25, 1–65.
- Schwartz, S. H. (1994, August). *Values, meanings, and goals—Views of the world in different cultures*. Paper presented at the 102nd Annual Convention of the American Psychological Association, Los Angeles, CA.
- Schwartz, S. H., & Bilsky, W. (1987). Toward a universal psychological structure of human values. *Journal of Personality and Social Psychology*, 53, 550–562.
- Schwartz, S. H., & Bilsky, W. (1990). Toward a theory of the universal content and structure of values: Extensions and cross-cultural replications. *Journal of Personality and Social Psychology*, 58, 878–891.
- Schwartz, S. H., & Sagiv, L. (1995). Identifying culture-specifics in the content and structure of values. *Journal of Cross-Cultural Psychology*, 26, 92–116.
- Scotton, B. W., Chinen, A. B., & Battista, J. R. (Eds.). (1996). *Textbook of transpersonal psychiatry and psychology*. New York: Basic Books.
- Searle, J. R. (2001). *Rationality in action*. Cambridge, MA: MIT Press.
- Seeman, W., Nidich, S., & Banta, T. (1972). Influence of transcendental meditation on a measure of self-actualization. *Journal of Counseling Psychology*, 19, 184–187.
- Segall, M. H., Ember, C. R., & Ember, M. (1997). Aggression, crime, and warfare. In J. W. Berry, M. H. Segall, & C. Kagitçibasi (Eds.), *Handbook of cross-cultural psychology: Vol. 3. Social behavior and applications* (2nd ed., pp. 213–254). Boston: Allyn & Bacon.
- Seifer, J., & Kollar, M. (Speakers). (1991). *The Better Sex Video Series, Vol. 1: Better sexual techniques* (Videotape Recording No. 9900). Chapel Hill, NC: Learning Corporation/Townsend.
- Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, 55, 5–14.
- Serlin, I. (1986). Toward an erotic spirituality. In J. M. Spiegelman & A. Jacobsen (Eds.), *A modern Jew in search of a soul* (pp. 231–243). Phoenix, AZ: Falcon Press.
- Shafranske, E. P. (Ed.). (1996). *Religion and the clinical practice of psychology*. Washington, DC: American Psychological Association.
- Shapiro, D. H., Jr. (1992). A preliminary study of long-term meditators: Goals, effects, religious orientation, cognitions. *Journal of Transpersonal Psychology*, 24, 23–39.
- Shweder, R. A. (1995). Cultural psychology: What is it? In N. R. Goldberger & J. B. Veroff (Eds.), *The culture and psychology reader* (pp. 41–86). New York: New York University Press.
- Silvestri, P. J. (1979). Locus of control vs. god dependency. *Psychological Reports*, 45, 89–90.
- Singer, P. (1990). *Animal liberation* (2nd ed.). New York: Random House/N.Y. Review of Books.
- Simon, L., Arndt, J., Greenberg, J., Pyszczynski, T., & Solomon, S. (1998). Terror management and meaning: Evidence that the opportunity to defend the worldview in response to mortality salience increases the meaningfulness of life in the mildly depressed. *Journal of Personality*, 66, 359–382.
- Sire, J. W. (1997). *The universe next door* (3rd ed.). Downers Grove, IL: InterVarsity.
- Slife, B. D., & Fisher, A. M. (2000). Modern and postmodern approaches to the free will/determinism dilemma in psychotherapy. *Journal of Humanistic Psychology*, 40, 80–107.
- Slife, B. D., & Williams, R. N. (1995). *What's behind the research? Discovering hidden assumptions in the behavioral sciences*. Thousand Oaks, CA: Sage.
- Smith, D. (1980). The impact of world views on professional life-styling. *Personnel and Guidance Journal*, 58, 584–587.
- Smith, M. B. (1991). Beyond Aristotle and Galileo: Toward a contextualized psychology of persons. In M. B. Smith, *Values, self, and society: Toward a*



- humanist social psychology* (pp. 163–177). New Brunswick, NJ: Transaction.
- Smith, P. B., & Schwartz, S. (1997). Values. In J. W. Berry, M. H. Segall, & C. Kagitçibasi (Eds.), *Handbook of cross-cultural psychology: Vol. 3. Social behavior and applications* (2nd ed., pp. 77–118). Boston: Allyn & Bacon.
- Snodgrass, C. E., & Gates, L. (1998). Doctrinal orthodoxy, religious orientation, and anthropocentrism. *Current Psychology: Developmental, Learning, Personality, Social*, 17, 222–236.
- Solomon, S., Greenberg, J., & Pyszczynski, T. (1991). A terror management theory of social behavior: The psychological functions of self-esteem and cultural worldviews. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 24, pp. 93–159). New York: Academic Press.
- Solomon, S., Greenberg, J., & Pyszczynski, T. (2000). Pride and prejudice: Fear of death and social behavior. *Current Directions in Psychological Science*, 9, 200–204.
- Soygüt, G., & Savasir, I. (2001). The relationship between interpersonal schemas and depressive symptomatology. *Journal of Counseling Psychology*, 48, 359–364.
- Spilka, B., Shaver, P. R., & Kirkpatrick, L. A. (1997). A general attribution theory for the psychology of religion. In B. Spilka & D. N. McIntosh (Eds.), *The psychology of religion: Theoretical approaches* (pp. 153–170). (Edited and reprinted from *Journal for the Scientific Study of Religion*, 1985, 24, 1–20)
- Staats, A. W. (1999). Unifying psychology requires new infrastructure, theory, method, and a research agenda. *Review of General Psychology*, 3, 3–13.
- Stace, W. T. (1960). *Mysticism and philosophy*. Los Angeles: Tarcher.
- Staub, E. (1996). Cultural-societal roots of violence: The examples of genocidal violence and of contemporary youth violence in the United States. *American Psychologist*, 51, 117–132.
- Stevens, J. (1999). Cosmic embrace: Seeing sex as sacred. *Shambhala Sun*, 7(6), 50–57.
- Stolorow, R. D., & Atwood, G. E. (1992). *Contexts of being: The intersubjective foundations of psychological life*. Hillsdale, NJ: Analytic Press.
- Sue, D. W. (1978a). Eliminating cultural oppression in counseling: Toward a general theory. *Journal of Counseling Psychology*, 25, 419–428.
- Sue, D. W. (1978b). World views and counseling. *Personnel and Guidance Journal*, 56, 458–462.
- Sue, D. W. (1981). *Counseling the culturally different*. New York: Wiley.
- Sue, D. W., Bingham, R. P., Porché-Burke, L., & Vasquez, M. (1999). The diversification of psychology: A multicultural revolution. *American Psychologist*, 54, 1061–1069.
- Sue, D. W., & Sue, D. (1999). *Counseling the culturally different* (3rd ed.). New York: Wiley.
- Sue, S. (1999). Science, ethnicity, and bias: Where have we gone wrong? *American Psychologist*, 54, 1070–1077.
- Szapocznik, J., Scopetta, M. A., Aranalde, M. A., & Kurtines, W. (1978). Cuban value structure: Treatment implications. *Journal of Consulting and Clinical Psychology*, 46, 961–970.
- Tannen, D. (1990). *You just don't understand*. New York: Morrow.
- Tenzin Gyatso [Dalai Lama XIV]. (1995). *The world of Tibetan Buddhism* (G. T. Jinpa, Trans.). Boston: Wisdom.
- Tindall, J. H. (1980). Reaction to Smith: A is for axiology: A counseling perspective. *Personnel and Guidance Journal*, 58, 587–588.
- Tinsley, D. J. (1993). Response to “Steps toward a science of free will”: Determinism, nondeterminism, and the distinction between uncaused and unpredictable behavior. *Counseling and Values*, 38, 67–71.
- Treviño, J. G. (1996). Worldview and change in cross-cultural counseling. *The Counseling Psychologist*, 24, 198–215.
- Triandis, H. (1985). Some major dimensions of cultural variations in client populations. In P. Pedersen (Ed.), *Handbook of cross-cultural counseling and therapy* (pp. 21–28). Westport, CT: Praeger/Greenwood Press.
- Triandis, H. C. (1989). The self and social behavior in differing cultural contexts. *Psychological Review*, 98, 506–520.
- Triandis, H. C. (1994). *Culture and social behavior*. New York: McGraw-Hill.
- Triandis, H. C. (1995). *Individualism and collectivism*. Boulder, CO: Westview Press.
- Triandis, H. C. (1996). The psychological measurement of cultural syndromes. *American Psychologist*, 51, 407–415.
- Triandis, H. C., Chen, X. P., & Chan, D. K.-S. (1998). Scenarios for the measurement of collectivism and individualism. *Journal of Cross-Cultural Psychology*, 29, 275–289.
- Triandis, H. C., & Gelfand, M. J. (1998). Converging measurement of horizontal and vertical individualism and collectivism. *Journal of Personality and Social Psychology*, 74, 118–128.
- Vaillant, G. E. (2000). Adaptive mental mechanisms: Their role in a positive psychology. *American Psychologist*, 55, 89–98.
- Vasco, A. B., Garcia-Marques, L., & Dryden, W. (1993). “Psychotherapist know thyself!” Dissonance between metatheoretical and personal values in psychotherapists of different theoretical orientations. *Psychotherapy Research*, 3, 181–196.
- Verplanken, B., & Holland, R. W. (2002). Motivated decision making: Effects of activation and self-



- centrality of values on choices and behavior. *Journal of Personality and Social Psychology*, 82, 434–447.
- Visser, P. S., & Krosnick, J. A. (1998). Development of attitude strength over the life cycle: Surge and decline. *Journal of Personality and Social Psychology*, 75, 1389–1410.
- Waldron, J. L. (1998). The life impact of transcendent experiences with a pronounced quality of noesis. *Journal of Transpersonal Psychology*, 30, 103–134.
- Walls, G. B. (1980). Values and psychotherapy: A comment on "Psychotherapy and religious values." *Journal of Consulting and Clinical Psychology*, 48, 640–641.
- Walsh, R. (1984). *Staying alive*. Boulder, CO: Shambhala.
- Walsh, R. N. (1990). *The spirit of shamanism*. New York: Putnam.
- Walsh, R. (1999). Asian contemplative disciplines: Common practices, clinical applications, and research findings. *Journal of Transpersonal Psychology*, 31, 83–107.
- Walsh, R. (2001). Shamanic experiences: A developmental analysis. *Journal of Humanistic Psychology*, 41(3), 31–52.
- Walsh, R. (2002). Terrorism and other global terrors: An integral analysis. *Journal of Transpersonal Psychology*, 34, 13–21.
- Walsh, R., & Vaughan, F. (Eds.). (1993). *Paths beyond ego*. Los Angeles: Tarcher.
- Webb, M., & Whitmer, K. J. O. (2001). Abuse history, world assumptions, and religious problem solving. *Journal for the Scientific Study of Religion*, 40, 445–453.
- Webster, J. W. (2001). Effects of ninth graders' culture-specific schemata on responses to multicultural literature. *Journal of Educational Research*, 95, 12–25.
- Wegner, D. M. (2002). *The illusion of conscious will*. Cambridge, MA: MIT Press.
- Wegner, D. M., & Wheatley, T. (1999). Apparent mental causation: Sources of the experience of will. *American Psychologist*, 54, 480–492.
- Wilber, K. (1999). Integral psychology. In *The collected works of Ken Wilber* (Vol. 4, pp. 423–717). Boston: Shambhala.
- Williams, M. A. (2001). *The 10 lenses*. Sterling, VA: Capital Books.
- Wilson, E. O. (1984). *Biophilia*. Cambridge, MA: Harvard University Press.
- Winter, D. (1992). *Personal construct psychology in clinical practice*. London: Routledge & Kegan Paul.
- Winter, D. G., & Barenbaum, N. B. (1999). History of modern personality theory and research. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality* (2nd ed., pp. 3–27). New York: Guilford Press.
- Wolman, B. B. (Ed.). (1973). *Dictionary of behavioral science*. New York: Van Nostrand Reinhold.
- Wright, R. (2000). *Nonzero: The logic of human destiny*. New York: Pantheon.
- Wrightsman, L. S. (1964). Measurement of philosophies of human nature. *Psychological Reports*, 14, 743–751.
- Wrightsman, L. S. (1992). *Assumptions about human nature* (2nd ed.). Newbury Park, CA: Sage.
- Wulff, D. M. (1997). *Psychology of religion* (2nd ed.). New York: Wiley.
- Wuthnow, R. (1978). Peak experiences: Some empirical tests. *Journal of Humanistic Psychology*, 18(3), 59–75.
- Yalom, I. D. (1980). *Existential psychotherapy*. New York: Basic Books.
- Young, J. S., Cashwell, C. S., & Shcherbakova, J. (2000). The moderating relationship of spirituality on negative life events and psychological adjustment. *Counseling and Values*, 45, 49–57.

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