

One of the prime functions of a book like Beyond Health and Normality is to posit descriptions of exceptional health which may provide guideposts and models for individuals. An important question which this task raises, however, is the line between religious sermonizing and scientific verification.

In this chapter Deane Shapiro attempts to provide a framework from which to examine the descriptions of exceptional psychological health given by both Eastern and Western traditions, and notes some of the difficulties that both East and West may have in perceiving the other accurately. Arguing from the perspective of science, he suggests the potential problems and dangers of positing unexamined values and ennobling visions. Arguing from the perspective of values, he discusses the advantages and importance of a view of exceptional psychological health, and suggests potential limitations of a strictly scientific approach. Finally, the article explores the question of if, where, and to what extent there might be a wedding between values and science.

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Science or Sermon: Values, Beliefs, and an Expanded Vision of Psychological Health

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The known is finite, the unknown infinite; intellectually we stand on an islet in the midst of an illimitable ocean of inexplicability. Our business in every generation is to reclaim a little more land.

A. Huxley

Today we have discovered a powerful and elegant way to understand the universe, a method called science.

Carl Sagan¹

On these issues (as to how people should live their lives, childrearing, sex, duty, guilt, sin, self-indulgence, etc.) psychology and psychiatry cannot yet claim to be truly scientific and thus have special reasons for modesty and caution in undermining traditional (religious) belief systems.

Donald Campbell²

The role of science in understanding human nature, and science's relationship to religion, philosophy, and the humanities is complex. It involves questions of the process by which knowledge is best arrived at, as well as ques-

tions about the nature of the knowledge itself. This chapter does not presume to tackle in depth the intricate and myriad subtleties involved; rather it attempts to provide an overview of the differences, disagreements, and interface between a values tradition (secular and nonsecular) and the scientific tradition. In so doing, I hope to help counter what Maslow described as two particularly dangerous attitudes being developed in our culture with regard to science.³ One attitude rejects the scientific approach altogether and confuses impulsiveness with spontaneity. The other attitude is a belief in an amoral, value-free technological science.

Since we all bring our own biases to a book like *Beyond Health and Normality* and a discussion of values and science, this chapter first examines specifically the issue of understanding our biases. Then, in Part I, arguing from the perspective of science, suggests potential problems and dangers of positing unexamined values and ennobling visions. Part II, arguing from the perspective of values, discusses the advantages of positing ennobling visions, and suggests potential limitations of a scientific approach. Finally, Part III addresses the question of if, where, and to what extent there might be a wedding between values and science. In other words, is the vision of an integrated, complementary science which is clinically relevant, experientially and morally based, and yet maintains a rigorous, empirically oriented research framework, a possibility, or a mere pipe dream?

The Importance of Understanding Our Biases

There is an often-told story about an opinionated, loquacious professor from the West who traveled to Asia in order to learn about Zen. The story goes as follows:

Nanin, a Japanese tea master during the Meiji era, received a university professor who came to inquire about Zen. Nanin served tea. He poured the visitor's cup full, and then kept on pouring. The professor watched the overflow until he could restrain himself no longer. "It is overfull, no more will go in," he cried. "Like this cup," Nanin responded, "you are full of your own opinions and speculations. How can I show you Zen unless you first empty your cup?"⁴

Many of us would probably sit back and chuckle at the story of Nanin and the one-sided simplicity of our Western professor who is not aware of his own biases. Although there may be a few rare individuals who have totally removed all bias from their life and world view, I would suggest that most of us do have filters through which we see the world, and that an important task for all of us is to try to be as precise and as careful as possible in understanding what those filters are.

Although some of the chapters in this book will attempt to point out problems and biases with both Eastern and Western schools, the majority of them, like Nanin, attempt to show Westerners their blinders in viewing the East. Unless we understand this perspective of the book, and try to look carefully at our own preconceptions *before* reading this book, we may end up trading one set of limiting biases which are unacknowledged for another set which are also unacknowledged.

The task, however, as we shall see, is not a simple one. Part of the problem comes from the blurring (and polarizing) of distinctions between science and religion which is occurring in our culture. On the one hand, because of the time of moral confusion in which we live—the zeitgeist of the so-called death of God movement—the boundaries between religion, science, psychotherapy, and healing are beginning to blur. In this book, Deikman refers to Sufism as a science, and Smith and Goleman talk about the psychological cores of Buddhist religion. Psychotherapy is often being referred to as a new religion, and scientists and psychotherapists as the new gurus. In addition, many Western therapeutic systems are looking to religions, Near and Far Eastern, as well as our own Judeo-Christian heritage, for insights into the fundamental nature of healing.

Insofar as religious systems represent an attempt at healing both the mental and the physical distress of the individual, and insofar as “spiritual beliefs” create mental and physical well-being, then this is important information for the health sciences. However, if religions can heal, if psychotherapists and scientists are the new gurus, then we move into a perplexing gray amalgam—where does religious healing leave off and scientific/psychotherapeutic healing begin?⁵

To make matters even more difficult, we are also faced with a plethora of psychotherapeutic approaches, and new ones seem to be springing up with regularity. There are the new-age psychotherapies (versus the “old-age” ones?); the holistic ones (as opposed to the segmental ones?); the uplifting, ennobling ones (as opposed to the degrading, debasing ones?). Sometimes one may feel lost in a large convention hall of detergent manufacturers, where each one explains how his *new* product will do a whiter, cleaner, better job of cleansing our minds, bodies, and/or souls.

Who is against ennobling visions, or against trying to develop the full range of their human potential? Pushing new frontiers, whether geographic, stellar, or intrapsychic, may be seen as part of our pioneering human spirit—as American as apple pie, motherhood, and Kansas wheat. Thus, a book which argues for extreme psychological health, love, compassion, and sensitivity clearly has to be on the side of the angels.

Nevertheless, a question which must be asked is, How does a book like this differ from a religious sermon? Are we merely missionaries proselytizing a

new world view, expressing revelations with an evangelical spirit? Do the values and beliefs of expanded psychological health expressed in this book have anything to do with our scientific tradition? What, if any, is the overlap between science and sermon, research and revelation, evangelism and empiricism?

A trial in California in 1981, *Seagraves v. California*, a so-called Second Monkey Trial, or Scopes II, cuts to the heart of these issues. This trial raised the question of whether the teaching of evolution in California schools must include a belief that the biblical account of creation has equal merit with scientific findings. One of the witnesses for the defense, Dr. Richard Dickerson, a professor of physical chemistry at California Institute of Technology, said the following:

Science is not a dogma or a body of belief; it is a process by which accurate knowledge about our world can be obtained. The role of the scientist is to learn, not to justify. A person who unconsciously works toward a predetermined conclusion is a poor scientist, and one who consciously works toward a predetermined conclusion is no scientist at all.⁶

How would Dickerson evaluate our statement about this book which appeared at the end of the first chapter?

Here then is a collection of descriptions from many of the world's major accounts of the nature of the human potential. From this vision of who and what we might become may come the motivation to actualize it at personal and cultural levels and to expand our psychologies to describe and facilitate the emergence of this larger Self. The study of the psychologically healthy may well swell their numbers. . . . such is our hope. . . .⁷

Are we being scientific; are we sermonizing? Are we stating beliefs and hopes; and/or are we doing some combination of all of the above? Do we need to make an absolute distinction between ideal health as a *state* versus ideal health as a *motive*?⁸ As a reader, where would your bias be on this science/sermon debate? Is it enough just to put out a vision, which may motivate individuals? Do you believe that it is nonscience to work toward a predetermined conclusion? Do you believe that science never has a belief system? Do you believe that religious values need to be verified for their "truth"?

At another level, what is your bias in terms of human nature? At a "gut" level, quite apart from research data or claims of scientific truth, what view of our human nature is most satisfying to you as a belief? What view of our human potential? Please take a few moments and think about that question, think about how you view other people—at their core.

In terms of how we acquire our knowledge, do you believe that it is best arrived at intuitively and holistically; or through piecemeal, segmental understanding? If you were to choose which is most important to you, would you choose seeing the world as dichotomous, or seeing the oneness and harmony of existence? Being or doing? Analyzing and interpreting reality, or being able to flow with and accept without interpretation, without preconceptions?

There are no right or wrong answers in the above questions, and many of you may feel that your bias, in some cases, was to choose both alternatives. All of us have biases, and these biases color our perceptions of reality. Although there is nothing wrong with biases per se, it is when we are unaware of them that we sometimes get into trouble.

Therefore, if we are to be successful in moving toward and developing new, larger, and more visionary paradigms of exceptional psychological health (which is indeed a bias and hope of this book), I believe that we need to do it with sophistication, and with a careful examination of our own biases. If not, the following parable may someday apply all too well to us:

Dr. Jack Johnson, a university professor during the 1980s, received a disciple of a patriarch of an esteemed spiritual discipline, who came to learn about science. The professor stood before the blackboard, writing with his right hand, and with a bucket and cloth, erasing with his left hand everything he wrote. Finally, with great patience, the disciple said, "When will you begin?" "Like this blackboard," the professor replied, "you are full of your own emptiness. How can I teach you science unless you first empty your holistic cup?"

PARAMETERS OF THE SCIENCE/SERMON DEBATE

The phrase *values tradition* is used to apply to those schools of thought which are involved in the development and promulgation of precepts of "morality," "how to live," "optimum well-being." This includes most religious and many philosophical traditions, consciousness disciplines, and some branches of psychology.⁹ The phrase *scientific tradition* applies to those schools of thought which utilize an empirical/analytical approach, hypothetical/deductive reasoning in order to arrive at knowledge about the world. Within this tradition, there are again many schools.¹⁰

By utilizing the phrases "values tradition" and "scientific tradition," and covering so many diverse schools under single umbrellas, there is, of course, a danger of oversimplification. The following discussion attempts to avoid setting up "straw men" within either tradition, and tries only to clarify similarities and differences between traditions by extracting those principles of high relevance. This simplification of issues is not intended to cloud the

complexity and multifacetedness of the topics, but only to help highlight them at a broad, overview level.

Clearly, there are individuals who take extreme positions in either the values tradition or the scientific tradition, and sometimes it seems that there are more differences within traditions than between them. There are extreme positions in either tradition—those who have unquestioning faith in their respective approaches—whether scientism (narrow-based, insular science arguing for itself) or cultish religion (religious evangelicalism unquestioningly arguing only for itself). To only critique these extreme positions would be creating “straw men”. My belief, however, is that these views are not uncommon, and therefore do need to be examined. However, mere examination of the extreme positions does not seem sufficient, and I will also attempt to examine where a creative interface may lie between the two positions. In the following discussion, we would do well to follow Donald Campbell’s advice on the need for epistemic humility. Campbell notes:

The epistemic arrogance of behavioral and social scientists is perhaps as much an obstacle to understanding . . . as is the epistemic arrogance which traditional religionists exhibit in their claims of revelation and absolute certainty. A kind of literalism on the part of scientists when looking at religious matters matches the biblical literalism of the fundamentalist as a hinderance to communication.¹¹

Assuming as a shared belief that both extremes of our scientific/values debate needs softening, let us look at what the issues are which need attention, how the extremist’s position can be softened, and what the critical parameters relevant to different traditions are.

PART I: THE SCIENTIFIC TRADITION

Ideally, science is not a fact, but an approach. It is a method of studying reality. It is self-correcting;¹ it is open-ended.⁶ As Sagan notes, “Science looks for order in the universe. Laws of nature are the foundations for science.”¹ Some would argue, however, that when science comes to believe that its methods are objective, factual, truthful, and better than other approaches, and that there are “right” and “wrong” methods for looking for order in the universe, then science moves away from its ideal and becomes bad science. Kuhn,¹² Kessler,¹³ Popper,¹⁴ Polanyi,¹⁵ and Tart,¹⁶ among others, have stressed the subjective hunches and intuitive personal understandings that are brought to scientific progress. As Campbell again notes,

We are being convinced . . . of the message of Hume and Kant: All scientific knowing is indirect, presumptive, obliquely and incompletely cor-

robored at best. The language of science is subjective, provincial, approximate, and metaphoric, never the language of reality itself.² (p. 1120)

Within these scientific traditions in general, and the behavioral sciences in particular, there is often fundamental disagreement about the nature of research strategies needed to understand reality. Thus, many of the criticisms which follow, and are made of the values tradition, could in some cases be applied just as easily to extreme scientific positions. Further, the criticisms should be seen not as absolute pronouncements applied to all of the values traditions, but rather as cautions to help keep us from falling into unacknowledged traps on either end of the continuum.

From the perspective of the scientific tradition (or at least my view of a traditional scientific establishment position), the following would be issues raised for consideration. First, there would be critical attention to the issue of the *orientation as a demand characteristic*.

In scientific pursuits, the orientation, model, or paradigm which is utilized creates a framework within which to order the world, test hypotheses, and evaluate information. An orientation of a psychotherapeutic school, or a religious training organization, is a similar belief system, and creates a certain demand on the client, patient, student, or follower. These demand characteristics postulate, implicitly or explicitly, a vision for the student or patient, and a belief that if the person practices and learns correctly, positive consequences will follow.¹⁷

These demand characteristics may have both positive and negative aspects. On the one hand, the belief by the therapist or religious organization in the efficacy of its own treatment strategy or orientations, appears to be an important factor in therapeutic success.¹⁸ Further, the transmission of this belief to the client and the client's belief in its credibility are also important factors.¹⁹ However, adverse effects of these "demands" arise when the therapist or organization holds them so strongly as to be unwilling to question them and/or have them altered by invalidating evidence. This applies to both the traditional and the new-age psychotherapeutic approaches as well as to the religious traditions. For if there is unwillingness to question one's own assumptions, the orientation, rather than being a useful method for organizing information and hypotheses about the world, becomes a blinder to new information and may cause a type of evangelical fervor in order to convince others of the correctness of one's views.

To help us understand and make explicit the "demand characteristics and orientation" of the authors of this book, and thereby to minimize some of the potential adverse effects, the reader is referred to Table 2-1. Neither scientists, psychotherapists, nor religious leaders are immune to the potential problems of the adverse effects of demand characteristics. This in no way

TABLE 2-1. Implicit and Explicit Global Biases of the Articles in the Book.

PART I	
Shapiro	To make biases explicit is important; analysis is critical, in addition to "holism"; both can be "higher" at different times.
Walsh	Eastern "awareness" can be/allows for higher; consciousness disciplines are "higher," more encompassing.
PART II	
Wilber	Eastern spiritual is higher on spectrum of consciousness.
Erhard, Gioscia, and Anbender	Eastern and Western are both good and bad; more than "bits and pieces of each" are needed. Calls for a new "paradigm" of paradigms.
Heath	Utilizes a scientific approach primarily which also acknowledges need to look to religious traditions for values.
Shapiro and Shapiro	Relationship is posited as an important value, and its centrality, at times, as a major context, is stressed.
PART III	
Walsh	Eastern psychologies are a "gold mine."
Goleman and Epstein	Eastern Buddhist approaches provide highest levels of health.
Shapiro	Zen is poetic and offers an elegant metaphor of health and well-being.
Smith	The sacred unconscious and spiritual level is the highest realm; "more" ultimate.
Deikman	Western science is problematic; Sufis claim a more highly developed science.
Globus and Globus	There is no ultimate spiritual reality; <i>nagual</i> (altered state) offers extraordinary dimension but needs to be balanced by <i>tonal</i> (ordinary awareness).
Kornfield	Spiritual realms are most important.
PART IV	
Wilber	Spiritual consciousness is more evolved developmentally, is larger than, and includes, other forms; Chinese box.
Shapiro	Control is a critical construct; analysis of when to use different types of control is important; balance is value.
Walsh and Vaughan	Eastern/spiritual consciousness is higher; ordinary reality, perceptions, identification create problems.

mitigates the fact that individuals who argue for ennobling visions, whether included in this book or not, argue from a heartfelt place. I believe they are earnestly and conscientiously making an effort to develop visions in the service of humanity. However, the question we must ask is whether a new vision, a new demand characteristic, no matter how poetic and elegant it may sound, is accurate and "truthful." As Michael Scriven, a philosopher, noted on an American Psychological Association Task Force on Ethics and Psychotherapy,

If psychotherapy were a drug, it would be banned by the FDA based on its outcome effectiveness.²⁰

He went on to say that honest and heartfelt belief by the therapist in his or her treatment did not make it any more effective than honest and heartfelt belief in snake oil treatment. Thus, one of the primary premises of this discussion is that all systems—scientific and religious—need to be rigorously evaluated for their efficacy.* Therefore, I would like to caution the reader, in reviewing the chapters in this book, to keep a sense of personal responsibility and openness to the ideas expressed. Ennobling beliefs are fine, but we need to be careful of unquestioned acceptance and of those who preach—whether in science or in religion—with too great an evangelical fervor.

One of the hallmarks and primary advantages of the scientific approach is the evaluation of information to test hypotheses, and the reporting of procedures used so that others may replicate the experiment. Beliefs, stated as scientific theory, may be a necessary first step, but are insufficient. Follow-up evaluation is necessary in order to insure that beliefs are not merely ungrounded speculation.

For some, scientific analysis of poetic visions may seem useless at best, or destructive at worst. On the other hand, without some framework for evaluation how will we know if the implications of the ennobling vision are ever brought to reality? Do these ennobling visions ever cause harm, albeit inadvertently? How do we know either way? Arguing from a scientific position, I would suggest the need for grounded hypotheses and research which can test the visions of psychological maturity and health cited in this book. Although I would not argue for any one “type” of research (e.g., phenomenological versus objective, etc.), I would hope, as much as possible, that the research be done with an open mind and not with predetermined conclusions.

Where adequate research has not yet been done or it appears difficult to compare specific positions, either through problems of paradigm clash²¹ or radical translations,²² we must be careful to try to avoid resolving competing values by rhetorical debate in the marketplace. As Erhard et al. note, “The West argues for itself, and the East does the same.” Thus, as indicated in Table 2-1, the reader should try to remain as sensitive as possible to the demand characteristics of the authors in the book (as well as authors in general) to try to separate out belief systems and values from supported facts.

For example, Rajneesh, utilizing very strong demand characteristics, says,

* I am ducking the question here of “how” this evaluation can best be executed. Although it’s a topic I’ve addressed at length elsewhere (40), I still don’t believe there are any simple or final answers.

"God is very destructive. If you don't go rightly, you will be destroyed—because God is fire! Many people go mad if they don't move rightly; if they don't move under the right guidance. . . ." ²³ At this point, I'm not questioning whether or not Rajneesh is right, but I am trying to point out the very strong pressure that may be placed on the followers: the fear of not going along with what the master says, may make them mad. For some individuals, who can come from a place of conscious choice and full responsibility, full surrender may be possible and advantageous. However, as experiences such as Jonestown have suggested, some individuals may be drawn to religious practices and cults seeking an external figure to "take care of them"—a master to whom one can unquestionably yield and accept everything that is said. Here, there may be potential danger of what Erich Fromm called escape from freedom. ^{24,25} The ability to maintain personal integrity against peer group or authority pressures is an equally important issue whether in scientific experiments, ²⁶ in the political arena, or in the religious tradition.

Again, we come back to the issue of evaluation. Rajneesh says, "I am not interested at all in the outsider's understanding of it. It is a very esoteric game. It is only for insiders, it is only for mad people . . . only they have the attitude of being in which understanding becomes impossible." ²³ Unfortunately, a view which is not interested in having itself evaluated by outsiders, is not a tenable position from the scientific perspective. This is just as true for religious and value-oriented ennobling visions as it is for psychotherapeutic practices.

Openness to self-scrutiny and critical analysis of the new visions seem essential. If Dostoevski's Grand Inquisitor created a compelling, ennobling vision that people wanted to believe, does that mean it is true? Or good science? Or merely a strong demand characteristic?

Summary

The scientific tradition would suggest that several caveats are in order when we approach the values tradition. It is important, first, to label values as beliefs—and not as facts—and, further, to beware of proselytizing those beliefs as facts. Issues of demand characteristics of the orientation need to be looked at, acknowledged, and made explicit. We need to be aware of the possibility of an anti-intellectual bias which may create ennobling visions, but may be unwilling to evaluate them. This can lead to a position which is antiscientific at worst or, without careful scrutiny, pseudoscience. Finally, where there is as yet no compelling evidence to determine the "truth" of a belief system, we need to be careful of rhetorical debates which may be nothing more than power struggles to gain a larger foothold in the marketplace.

PART II: THE VALUES TRADITION

In a recent senate subcommittee meeting on abortion, Dr. Leon Rosenberg, chairman of the Yale Medical School Department of Human Genetics, said,

Science doesn't deal with the complex quality called "humanness" any more than it does with such complex concepts as love, faith, or trust.²⁷

Rosenberg added that philosophers and theologians had to make those definitions.

Where does science leave off, and where do values begin? At a time when rapid technological breakthroughs are occurring in fields ranging from molecular biology and genetic engineering to nuclear armament, what is the role of values and science? Does the person who has the knowledge to make a technological breakthrough have no responsibility to posit values or look at the consequences of those breakthroughs? Fundamentally, the question becomes whether an individual can claim that he or she is taking a stance of scientific noninvolvement and objective observation. According to this view, nature follows certain orderly laws and the task of the scientist is merely understanding.

The critics of this view, both in this book and elsewhere, express strong concerns and reservations about this particular scientific attitude. For example, Deikman notes that science needs to address the question of "what is the function of the healthy person" and "what is the purpose of human life." He says that the scientific community has consistently dodged this question by saying that it is outside the view of science or that the question is false because the human race has developed by chance in a random universe. Deikman comments that these answers are not sufficient and that,

"Science's penchant for objective measurement, control, and stilted non-teleological description" . . . and scientific world view of an orderly, mechanical, indifferent universe in which human beings exist as an interesting biochemical phenomenon—barren of purpose. . . [cause our] therapies and theories . . . [to] share the fundamental limiting assumptions about man that are basic to our culture. [This] hinders the development of the higher capacities . . . [and] perpetuates the endemic illness of meaninglessness and arrested human development.²⁸

These critics of science argue that a more intuitive, nonreductionistic approach is necessary for understanding the human process and creating an ennobling vision. They further suggest that science not only will not, but perhaps cannot, provide it. For example, Wilber says that when the scientific

community tries to understand these ennobling visions, to absorb them, it ends up misusing them. He says of "narrow based" science:

Those transpersonalists who exegetically embrace the paradigm of personalistic psychology (behavioristic self-regulation, mechanistic psychology, etc.) in an attempt to gain acceptance by their orthodox peers, simply run the risk of not only violating the phenomenology of their own field by reducing it to personalistic dimensions, but also leading orthodox psychologies to think that transpersonal concerns could be absorbed (and thus dismissed) by its own personalistic paradigm. This has already happened with the physiological approaches and with behavior modification approaches.²⁹

A third issue involves the question of noninvolvement and objectivity. As Heath notes,

Behavioral scientists disagree about the possibility of ever achieving such value neutrality when studying complex behaviors like intelligence and mental health.³⁰

Particularly in the social and behavioral sciences, if individuals try to assume an "objective" posture, they may become mere evaluators of "what is." In so doing, they may allow current social mores to become, by fiat, the value and vision. As Nolan noted,³¹ "We need to be careful of applying social standards as a guideline for health. Otherwise the techniques may come to determine the vision, rather than a vision determining the purpose of the scientific techniques." Therefore, from a values viewpoint and an existential perspective, to act as if one can be an amoral scientist is already making a moral decision, for one's evaluation may de facto perpetuate the status quo, or one's scientific advance may create technology that can either hurt or help humankind.

Further, it may be that objectivity of observation is in fact impossible. For example, research is quite convincing that our values and expectations influence what we are studying.³² Thus, we might suggest that science not only cannot be value free, but that even if it could, it shouldn't. Scientists in general, and behavioral scientists in particular, may need to take responsibility for assessing very carefully their own assumptions, and to see how their beliefs (including beliefs in objectivity and noninvolvement) may influence the reality they are studying.

A final criticism of scientific tradition is that it may tend to avoid and/or pathologize that which does not seem to fit into its paradigmatic view. Thus, ennobling visions or spiritual disciplines may be conveniently absorbed in a

reductionistic way or given pathological interpretations. For example, Freud³³ dismissed oceanic experiences as reflective of infantile helplessness. The noted psychoanalyst Franz Alexander³⁴ called these types of experiences delusional, psychotic, and catatonia-like, and a recent report from the group for the Advancement of Psychiatry³⁵ also explains away many of these experiences as "epiphenomena" not worthy of consideration or as examples of regression.

Summary

A values tradition, as a critic of scientific tradition, suggests that the scientific viewpoint needs to be careful of its own potential biases. These biases include an effort to reduce all experience to objective laws of "cause and effect," reductionistic understanding of the universe, and cutting the "stream of consciousness" into pieces. Further, the scientific viewpoint may be unduly pathologically based, and therefore barren of hope for individuals. As Deikman notes,

Freud's model of man as an organism seeking relief from tension, forced to negotiate a compromise between instinct, reason, and society, leaves even the most successful negotiator in a position of impoverishment as pathological, in its own way, as any illness listed in the diagnostic manual.²⁸

In addition, science may (inappropriately) believe that an amoral position is tenable, and may perpetuate an "illusory" view that noninvolved, objective observation is possible. Finally, when scientists do study disciplines which have different world views, they may avoid, pathologize, and/or reduce those viewpoints to fit within their own world view.

PART III: TOWARD A CONSTRUCTIVE INTERFACE BETWEEN VALUES AND SCIENCE

Is the reduction of religious experience to a matter of organic molecules acting at brain synapses a sufficiently ennobling vision? What about the higher emotions of the human spirit that the religious and values traditions talk about and the comfort that their world view can offer? On the other hand, is an ennobling vision anything more than soft pseudoscience, an area of the void where absence of precise knowledge leads to mystical speculation? Can the two ever meet? Is a moral science possible? Can we expand the vision of science or are we merely sermonizing? Where do values and personal biases begin, and where does science end? Can science and religious vision meet?

Or are there radical translations between the two that make their interface on certain dimensions impossible?

This section seeks to articulate a process vision—an approach suggesting where science and values might interface.

As a beginning, let us look at the following three statements:

1. People are compassionate.
2. People should be compassionate.
3. People can be compassionate.

“People are compassionate” may be a belief, a value, or a theory, but it is stated as a fact. There would need to be some support and research to validate the theory, and to determine, quite precisely, whether people are compassionate across different situations, with different individuals, etc. The second sentence, “People should be compassionate,” is a value. One can’t argue with a person’s values, nor can a value be proved. However, one can look precisely at the functionality of compassion and look at the criteria of “why” people should be compassionate. The final statement, “People can be compassionate,” is testable. We can operationalize our term “compassion” and suggest whether people can learn these skills. Whether we would want to teach them those skills becomes a value question.

Science cannot disprove religious views per se (e.g., the world is teleologically planned), but it can seek to confirm alternative hypotheses (the Bible versus evolution). Further, it can look at the effect beliefs have on people (e.g., are those who believe in the Bible, or Buddhism, or Sufism, nicer, gentler, kinder, better contributors to humanity, etc.?). It can also determine which beliefs are “more comforting” to individuals and what effect that has on them. Thus, we can see that there can be overlap as well as separate areas between issues of values and science. As Maslow has noted, there is a point at which the issue of what is fact and what is value becomes fused,³⁶ and Wilber has pointed out that one cannot determine values through empirical/analytical efforts.³⁷

Further, when describing religion and science, or Eastern and Western psychologies, the different contexts in which the traditions developed, the different views of the value of the intellect, and the different approaches utilized to understand reality may make it easy for each to misunderstand and misinterpret the other. For example, in fourth century China, Lao-tzu, the principal advocate of what may be referred to as Taoism, or a holistic view of the world, proclaimed that names implied differentiation and loss of the original state of Tao. His disciple Chuang-tzu noted, “Banish wisdom, discard knowledge, and people shall profit a hundred fold.”³⁸ Lao-tzu suggested that we are not free as long as we are *bound by* labels and words, as

long as we need to seek to exclusively understand cause and effect. The seasons come and go, whether or not we understand them. The free person is one who has learned to let go of analysis, yield, and follow the way of the water.

Confucius, on the other hand, believed that problems in human beings stemmed from the fact that people didn't have accurate enough names and labels. To restore harmony and order to living, he felt we needed more and better rules of conduct. In a sense, the contemporary content of Confucius' viewpoint can be seen in science in general, with an emphasis on precise labeling of experience and a sequential analysis of causality.

Thus, clashes between traditions may be inevitable and, in the case of the two traditions we are discussing, may reflect different views on the role of concepts, language, and analysis.

It is critical to acknowledge that both science and religion are based upon belief systems and faith in them. While acknowledging that religion is based on quite a strong belief system (i.e., faith), scientists are often less willing to acknowledge their own preconceptions—paradigms of the world.^{11,12} These scientific beliefs (concepts, models, paradigms) may affect not only the content of what is observed, but also the process by which it is observed and interpreted. They may act as self-fulfilling filters to the acquisition of knowledge and its interpretation.

Science has primarily attempted to gain conceptual knowledge of phenomena by setting up hypotheses, hypothetical/deductive reasoning, empirical testing, and evaluation of results. From this process we gain a map, primarily in linguistic or symbolic form. The meditative traditions point out the critical difference between conceptual and experiential knowledge and the danger of confusing them or of obliterating the experiential by the conceptual. They state that only through direct experience can "true" reality be understood. As D.T. Suzuki noted, "True understanding involves a special transmission outside the scriptures: No dependence on words or letters."³⁹ Lao-tzu observed, "Those who know do not talk, those who talk do not know."³⁸

The type of approach represented by Lao-tzu, Suzuki, and the meditation traditions in general, is a scientist's nightmare. How can we form testable hypotheses about experiences which cannot be conceptualized or talked about and in which the practitioners themselves say that any attempt to analyze it will cause the nature of the experience to change? This is a real dilemma. Unfortunately, scientists have often reacted by simply dismissing these experiences.⁴⁰

On the other hand, the mystical traditions have, for the most part, eschewed formal scientific analysis and, therefore, have no formal empirical

frame of reference for evaluating the efficacy of their hypotheses and practices.*

Scientists are expected to use the data from their research to evaluate the veracity of their hypotheses and, when data do not accord with belief, to change their beliefs. *Those who believe only on faith* use data (whether confirming or negating their belief) as a means of strengthening what they already believe.

Given the difficulties of attempting an interface, it is not surprising to find a paucity of previous efforts trying to wed values and science. Certainly, we need to look at the pioneering work of Robert Kantor on the implications of a moral science.⁴¹ Further, we owe an important historical debt to the contributions of Abraham Maslow's⁴² self-actualization and Jung's individuated self,⁴³ as well as to the developmental models of Erikson,⁴⁴ Kohlberg,⁴⁵ and more recently Vaillant⁴⁶ and Levinson,⁴⁷ in terms of higher phases of moral, cognitive, and personal growth. We also can find an interface in the cognitive sciences, particularly the work on the healing effect of placebo and belief systems, including the efforts of Benson,⁴⁸ Frank,⁴⁹ and Ellis⁵⁰ among others. Finally, we need to look to the social psychological literature where it has been shown that expectations often determine outcome.⁵¹

In this book, both Heath and Deikman have suggested areas of overlap between values and science. Deikman says that there may be a fundamental significance to certain values and that "missing from our culture are the bases whereby the concept of virtue can be seen to have a functional, rather than a moral, significance."²⁸ For example, he suggests that humility is not a moral virtue per se, or one that earns credit in a heavenly bank account, but that humility serves an imperative formula: "It is the attitude required for learning. Humility is the acceptance of the possibility that someone else or something else has something to teach you which you do not already know." By framing the question as he does, he makes it a researchable question: i.e., whether certain attitudes (e.g., humility) in fact create higher learning outcomes. Heath³⁰ theorizes that values of the great religious traditions have a survival role (i.e., to help societies function with a higher probability of survival).

If anything has been clear from the foregoing discussion, it should be that

*To some extent, the above statements, though accurate, are an oversimplification. The mystical traditions would argue, and with some truth, that they are highly empirical but utilize a personal and contemplative science rather than a physicalistic one. However, this contemplative approach does not deal with "expectation effects, demand characteristics, etc." Similarly, some in the scientific tradition would suggest that they also use intuition in formulating hypotheses.¹³

both traditions, religious and scientific, need to be careful about what they call facts. For example, Loren Eiseley, the noted archaeologist, said,

No one should object to the elucidation of scientific principles in clear, unornamental prose. What concerns us is the fact that there are some scientists not representing the very great in science who would confine us entirely to this diet. Once again, there is revealed a curious and unappetizing puritanism that attaches itself all too readily to those who, without grace or humor, have found their salvation in "facts."

Those facts, said Eiseley, are "dwarfed by the unseen potential of the abyss where a science stops."⁵²

In mathematics, physics, and astronomy, scientific "facts" themselves are being called into question. For example, the mathematician Kline⁵³ has suggested that laws of logic are no longer sufficient or infallible in mathematics. In physics, quantum and relativity theories have destroyed the Newtonian dream that scientists one day would reduce the material universe to invisible "elementary" particles. As Neil Bohr said, "Isolated material particles are abstractions, their properties being definable and observable only through other particles."⁵⁴ The idea became common among physicists, including Einstein, that subatomic particles were less particles than "perturbations" in the energy fields in which they existed.⁵⁵

Facts, then, are not independent according to these views, and there is a dynamic interconnectedness of all things. Certain astronomers, for example, are convinced that the existence of physical laws as we know them is dependent upon the universe being exactly as it is, and that if the solar system existed in isolation from the rest of the universe, it would not exist at all, at least not in any recognizable form. Again, this is similar to the Eastern religious view of the dynamic interconnectedness of all things—the total ecological dependence of all that exists upon all else that exists. As Huston Smith notes, "Modern astronomical time and space, which irrevocably smashed the West's previous world view, slip into the folds of Buddhist cosmology with scarcely a ripple."⁵⁶

Summary: On the Values —> Scientific Side of the Equation

From the values sector—poets, philosophers, theologians, and some mental health professionals—there has been a cry, almost a plea, for the development of ennobling visions. These visions can help provide what Joseph Campbell⁵⁷ referred to as "myths to live by," symbols of excellence and

cooperation, new possibilities and paradigms for the positive evolution of human nature. This vision of humanity, which goes beyond mere physical survival and cultural adaptation, can become a self-fulfilling prophecy, lifting individuals, society, and culture to new realms of cooperation, understanding, and peace. As Gordon Allport said,

By their own theories of human nature, psychologists have the power of elevating or debasing that same nature. Debasing assumptions debase human beings; generous assumptions exalt them.⁵⁸

Thus, one of the primary tasks of the values camp in general, and this book in particular, may be in a sense to be evangelical, to stir up as many people as possible to pursue the exploration of the further reaches of their human potential. There may be a self-fulfilling prophecy in this. If we *believe* in ourselves as innately self-actualizing, we may be more willing to trust ourselves. If we believe that other people have a Buddha nature in them and are delicate and lovely human beings innately, then we may act toward them in that way and create a self-fulfilling prophecy interpersonally. For example, when a Rogerian therapist acts toward a client with love, caring, acceptance, and with a belief in that client's essential worth, these may be imparted to the client.

Thus, *Beyond Health and Normality* is written largely from the perspective of the values tradition. One of its prime tasks is to begin to provide models and visions from which we, as individuals, whether scientists or not, can begin to formulate our own self-chosen realities. The visions can provide a values context and vision for science, and may serve as self-fulfilling prophecies moving us individually and collectively toward heights of "something more." Further, this tradition can point out the limitations of a strictly "rational" scientific approach, including when it pathologizes, reduces, or avoids that which doesn't precisely fit into its paradigm. It can provide an alternative theory to a strictly barren world view (i.e., our evolution from globular matter versus a teleological, ennobling vision). Further, the values camp, insofar as it reflects a critique of the scientific tradition, may suggest that those who don't have a holistic or intuitive sense, and yet are attracted to the order of science, may end up becoming mere technicians and fact finders. Further, even when intuition and precision are more in balance, it still may be necessary to have a context of values. Finally, this can assist us in pointing out that a scientific approach is an *approach* and that scientific facts are merely stepping stones until new facts are discovered. Therefore science, too, rests upon a belief system and paradigmatic assumptions.

On the Scientific—Values Side of the Equation

On the other hand, it is suggested that when reading this book, we be cautious to separate out beliefs and theories from assertions of fact. We in the West may have a halo which we place on all things ennobling, Eastern, holistic, spiritual. Thus we have to be very careful, I would suggest, when we look to the East with excitement and exaltation. Evangelical words are used throughout this book (e.g., gold mine of information), and as noted in Table 2-1, there is often the suggestion that things Eastern and spiritual are exalting. We need to be careful that we don't apply less skepticism and scientific rigor to these traditions than we would apply to our own religious beliefs. For example, nowhere in this book is the Judeo-Christian heritage called a gold mine, and extreme caution would be used in ever describing a new scientific *theory* as a gold mine.

Another example of the problem of imprecise labeling of theory, and of belief versus fact, may be seen in the assertion made by Maslow, "If you deliberately plan to be less than you are capable of being, then I warn you that you will be deeply unhappy for the rest of your life."⁵⁹ How does Maslow know this? How is his statement different from a religious sermon? In fact, it isn't. He is expressing his personally felt beliefs, just as theologians and philosophers for centuries before him have done. We need to make sure that assertions, no matter how deeply felt, are not taken as scientific fact, based solely on strength of conviction.

Similarly, in this book when there are statements that there are no limits to the capacity of the mind, this may be an excellent motivator. However, it may be bad science. It may be a value to encourage people to develop themselves to their fullest potential, but it also may make people believe that they have more capabilities than they in fact do. Again, the area of overlap between values and science needs to be looked at very precisely. Therefore, in the realm of vision and morality, the values tradition may be far ahead of the Western scientific approach, but from the perspective of being an empirical science, the values tradition may not be on such sophisticated ground.

Concluding Remarks

I am suggesting that we need to utilize both values and a scientific approach to the study of human behavior. I believe we need efforts to develop a new vision, but that we need to do this within a context which does not negate our scientific tradition. Therefore, although certain chapters of the book will be somewhat evangelical in tone and have an intent to share a new vision of possibilities, I believe this must be balanced by attempts to ground the vision, to show scientific problems in the study of the healthy person, and to point the way for future research.

Although I'm not sure of the exact way to achieve this balance, I'm really suggesting that at least two hats be worn. One hat is that of the academician or scientist. This hat would like, as much as possible, beliefs tied to data. No statements would be made as fact unless there was sufficient empirical research to justify its conclusion. This is an important position, for once we leave the data, we are in the realm of speculation and educated guesses. There may be a tendency, amidst the excitement of new thoughts, new integrations, new visions of wellness and extreme psychological health, to speak in hyperbole. We may be creating a vision like that of Teilhard de Chardin, a vision of the omega point as an evolution toward higher and higher consciousness. Although elegant as a belief, it may cause us to have blinders to some of the problems and our own lack of skills that need to be developed. Beliefs need to be stated as beliefs and hopes.

The other hat that many of us wear is that of clinicians and educators who are on the front line, who see people every day. We need to present our clients and patients with the best, most up-to-date skills and knowledge possible. In a sense, as noted earlier, we become preachers in a secular age. Individuals' concerns won't wait for final empirical findings. So, we go with our best, albeit an incompletely documented, effort. We try to be honest with ourselves and acknowledge the intuitive seat-of-the-pants speculation that is often used in our efforts. At the same time, we need to be honest in evaluating the effectiveness of our effort.

Thus, our task is to work on two levels. To say which one is right or truer is really to pose a chicken-and-egg question which may not be able to be answered. On the one level, our task is speculative, heuristic, and visionary. We need to create the framework for the information that we will subsequently research. Yet we need to look at our research data and go beyond that to create the new vision. Once we have revised and refined our vision, our next task is to see if we can't develop additional skills and means for reaching it, and then to honestly assess our efficacy in so doing. In formulating the vision, we need also to acknowledge where cognitive, analytical skills are not enough and where there are ineffable experiences which are part of the vision, even though they cannot be adequately conceptualized.

If I were to make a tentative beginning formulation about ennobling visions, it would be as follows:

1. We cannot escape models and visions.
2. I would suggest that ennobling visions may be functional and have many positive purposes.
3. I believe the vision should give us a sense of hope and purpose.
4. I believe that a purposive vision should not attempt to proselytize, and that beliefs should be stated as beliefs.

5. I believe the vision should also see the distress in life and not see transcendence too simply. Otherwise I believe transcendence may become an avoidance of honestly focusing on the suffering that occurs.
6. I believe we need to remain ethically and personally responsible for our choice of beliefs.
7. I believe that we need to be able to use an open-ended scientific approach in trying to understand and evaluate the efficacy of our beliefs, and that we should not stop in our attempts at evaluation even though there may be limits and problems in so doing.
8. I believe the ennobling belief should be a process of attainment rather than a final ideal state.
9. I believe, as much as possible, that we should try to look at both (all) sides of the science/values/ennobling belief issue.

The behavioral sciences, psychology, psychiatry, and the mental health professions are currently undergoing a revolution in thinking and conceptualizing. There is an openness in these fields, a breaking down of the traditional scientific paradigms. Although this makes for a confusing time in a scientific discipline, it can also make for an exciting time, for there is the opportunity for new approaches and new paths to be explored. The twin lions at the Eastern temple gates are sometimes said to represent confusion and paradox, and the person who would have true wisdom must be willing to pass between both. Somehow, it seems important to be able to maintain a paradox of holding an open mind while challenging ourselves with a fully disciplined consciousness to go for the highest possible potential; to have a full belief in the possibility of our vision, and at the same time not be guilty of simplistic naiveté. It seems we need to free ourselves, to give ourselves permission for this exploration; in addition, we need to take the time to verify the results of our exploration. Again, I concur with the sentiments expressed by Donald Campbell who noted, "The issues are so complex, and the data available so unconvincing. . . . that this article needs to be seen as a challenge rather than as established conclusions."²

It is in this spirit of open inquiry and searching on both personal and professional levels, that I am writing this chapter and that we are editing this book. The challenge awaits.

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