

Toward a Psychology of Human Survival: Psychological Approaches to Contemporary Global Threats

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Nuclear weapons, population explosion, resource and food-supply depletion, and environmental deterioration have been posing increasing threats to human survival. Moreover, for the first time in history, all these major global threats are human caused and can, therefore, be traced in large part to psychological origins.

After a brief overview of the nature and extent of current threats, this paper suggests criteria for an adequate psychology of human survival. The causes and effects of the threats are examined from various psychological perspectives and the psychological principles underlying effective responses are deduced. The ways in which mental health professionals may contribute to this most crucial task are discussed.

Each of us is called on to do something that no member of any generation before ours has had to do: to assume responsibility for the continuation of our kind—to choose human survival.

Jonathan Schell¹

Can humankind survive? Can civilization, in any meaningful sense of the word, be assured for the majority of the world's population during our lifetime, and for our children, and their descendents? Surely these are among the most important questions of our time and raise issues and implications for all psychological disciplines, yet how rarely are they addressed in the psychological literature.

This deficiency in the literature becomes all the more remarkable when it is realized that all the major global threats to human survival and wellbeing are now primarily human caused. That is, they stem directly from our own behavior and can therefore largely be traced to psychological origins. This means that the current threats to human survival and wellbeing are actually symptoms of our individual and collective mind set. Of course, this is in no way to deny the role of social, political, and economic factors, but simply to emphasize the much neglected psychological forces that underlie them.

These global threats can be summarized in terms of malnutrition, population explosion, resource depletion, pollution, ecology, and nuclear

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weapons. At the present time 15-20 million of us die each year of malnutrition-related causes, another 600 million go chronically hungry, while billions live in poverty without adequate shelter, education, or medical care.^{2,3} The situation is worsened by explosive population growth, which adds another billion people every 13 years, depletes natural resources at an ever-accelerating rate, affects "virtually every aspect of the earth's ecosystems (including) perhaps the most serious environmental development . . . an accelerating deterioration and loss of the resources essential for agriculture."⁴ Desertification, pollution, acid rain, and greenhouse warming are among the more obvious effects.

Despite their severity, even these problems are overshadowed by the nuclear threat with the equivalent of some 20 billion tons of TNT (compared with 3 million tons for all of World War II). These weapons are controlled by hair-trigger warning systems, create highly radioactive wastes for which no permanent storage site exists, consume over \$100 billion each year in military expenditure, and threaten global suicide.⁵⁻⁷

The fact that these threats are all human caused means that to cure or at least significantly improve them may therefore demand not only symptomatic treatment, such as feeding the starving and reducing nuclear stockpiles, but also understanding and treating their psychological roots. Developing and applying such understanding may be one of the most urgent tasks facing our generation.

Mental health professionals have recently begun to respond to this challenge. However, as yet most studies have been somewhat fragmentary, usually focussing on war, particularly nuclear war, and ignoring other problems, examining only a few psychological dimensions, and employing only one psychological school or perspective. So far there has been no attempt to address contemporary global threats as a whole from multiple psychological perspectives. This article, therefore, aims to provide a brief outline of a comprehensive, multidimensional psychology of human survival by using diverse schools to analyze the psychological causes and costs of contemporary global threats and deduce principles of effective response. A book-length description is available elsewhere.⁸

PSYCHOLOGICAL CAUSES

Only on the basis of an understanding of our behavior can we hope to control it in such a way as to ensure the survival of the human race.

Senator William Fulbright⁹

Any psychology provides a necessarily partial and selective perspective and interpretation of the world and of ourselves, but increasing evidence suggests that different schools of psychology may be partially complementary.⁹ Let us, then, attempt to ground our psychology of human survival, not

in any one exclusive school or perspective, but rather within an open-minded, inclusive, integrative framework that acknowledges the possible value and complementarity of apparently divergent approaches. In doing so we model at the psychological level what we are attempting at the cultural and international; namely, to set aside traditional boundaries, conflicts, and claims for exclusivity, and to welcome for objective appraisal the potential contributions of all schools—behavioral and dynamic, individual and social, cognitive and existential, Eastern and Western.

Each of these schools provides a particular view of human nature, potential, and pathology that can be extended to an analysis of the threats to human survival. The crucial question is which of their insights may be most useful for this purpose. The criterion here is a pragmatic one and the schools and dimensions discussed here are those whose insights I personally find easiest to translate into guidelines for practical responses.

The dimensions on which I will therefore focus include cognitive factors, the behavioral factors of reinforcement and social learning, the Eastern psychologies' "three poisons" of addiction, aversion, and delusion, selected psychodynamic defense mechanisms, and the central roles of fear and immaturity. A more complete psychology of human survival might give greater attention to social factors, but since effective responses begin with individuals, it is individual psychologies I have emphasized here. Due to space limitations the following analyses are necessarily extremely brief and those wanting a fuller discussion may wish to examine a book-length analysis.⁷

Cognitive Perspectives (Beliefs/Ignorance/Presuppositions)

Within recent years there has been a growing recognition of the potent yet frequently unrecognized power of beliefs to shape experience and behavior. Beliefs tend to modify what we look for, what we recognize, how we interpret, and how we respond to these interpretations. What is absolutely crucial is that these largely unconscious processes tend to be self-fulfilling and self-prophetic.^{8,11}

This is why we must identify the beliefs shaping our contemporary crises. These include beliefs about ourselves, about others and our relationship to them, and about the world, weapons, and warfare. The following are some of the beliefs that may be particularly dangerous:

The first are beliefs about ourselves and include self-limiting assumptions that reduce our sense of effectiveness: beliefs such as "there's nothing I can do," "no one will listen to me," or "it's not my responsibility."

Also dangerous are beliefs to the effect that "my beliefs/views/ideology are the truth and the only truth." Such beliefs become even more dangerous

when the beliefs of others are denigrated, as in "my ideology is the only correct one, and theirs is self-serving, heretical, etc."

Beliefs about others and our relationships to them are also crucial. Particularly harmful are those that blame others, dehumanize them, or see them as fundamentally inferior to ourselves. Obvious examples here include "it's their fault, not ours, that they're hungry, that there is an arms race, etc.," "you can't trust them," or "they would never disarm," and, worst, "they're not really human."

Zero-sum "us versus them" relationship beliefs that argue that ultimately only one party can be successful or survive may be particularly dangerous. At their worst these beliefs create a Manichaean world view in which the entire world is regarded as a battlefield on which the forces of light (us) must combat the forces of darkness (them). In our time the cold war provides a tragic example in which marxism and capitalism are frequently seen as necessarily locked in an inexorable struggle for survival and world domination. Such beliefs are both cause and effect of malignant social processes such as suspiciousness, hostility, a focus on differences and denial of commonalities, a belief that solutions can be obtained only by domination, and temptation to resort to coercion and deception.^{9,12} Once set in motion, such behaviors tend to "prove" the apparent validity of the beliefs that created them as well as the "wisdom" and "foresight" of those who held them, thereby once again demonstrating the self-prophetic power of beliefs.

Then, also, there are powerful yet usually unquestioned assumptions about defense and warfare. For example, since an annual amount of less than one week's arms expenditure could eradicate world starvation⁴ there is the question as to whether we really believe it is worthwhile to allow hundreds of millions of people to starve to death in order to defend ourselves. Similarly, there is also the question of whether we would really want to kill hundreds of millions of people in order to avenge ourselves in a nuclear war, especially since the vast majority of those killed would be innocent civilians.

Numerous other questionable beliefs also underlie current nuclear strategies. These include the ideas that "increased numbers of weapons provide increased security," "nuclear superiority is possible," "limited nuclear wars are containable," and "nuclear war is winnable."

Questionable beliefs about the world abound. As such, they presumably generate cognitive dissonance and support defense mechanisms preventing an accurate view of the world and appropriate responses to it. Beliefs such as "it's hopeless" and "there's nothing that can be done," though understandable in light of the enormity of our difficulties, may exacerbate feelings of apathy and despair and prove dangerously self-fulfilling. Likewise, beliefs that "there's not enough food to go around" or that "there's no way of getting the food to people" are not only patently incorrect, they are dangerous.¹³

Defense Mechanisms

"Humankind cannot bear very much reality," said T.S. Eliot, and defense mechanisms are the crutches we use to help us avoid it. Those particularly relevant to this discussion are repression, denial, projection, rationalization, and intellectualization.

Most people experience great difficulty acknowledging the true state of the world, its suffering, and its peril.¹⁴ Repression and denial play major roles in this difficulty and spawn statements such as "I'd rather not think about it," or "it's not really so bad." Their result is an "ostrichism," which saps our motivation to respond in appropriate ways.¹⁵

But the effects of repression and denial extend further. We wish to deny not only the state of the world but also our role in producing it. Hence we use projection to attribute to others the unacknowledged facets of our own self-image and motives (what Jungians call the "shadow"), and thus create "the image of the enemy."¹⁶

This image is usually stereotypic and mirror-like. That is, no matter who "the enemy" is—Germans, Japanese, Russians, or Americans—they tend to be ascribed similar stereotypic traits and motives. These perceptions are mirror-like because enemies tend to perceive each other similarly, each ascribing hostility and untrustworthiness, for example, to the other and seeing themselves as well-intentioned and benign. The process is further exacerbated by the "mote-beam phenomenon," which allows us to recognize the faults of others with crystal clarity while somehow missing our own and by "King David's rage" that leads us to attack in others what we have denied in ourselves.¹⁶

"The strain to consistency" then demands that this image of the enemy be maintained through selective perception and further defenses.¹⁷ This makes it difficult for us to attribute anything except negative intentions to "the enemy" and inclines us to view even hostility-reducing overtures as merely signs of deceit. Moreover, since we know how ethical and appropriate our own motivation is, the fact that our enemies fail to acknowledge this and even attribute their evil motivation to us only further proves their duplicity.¹⁷

The result is a classical paranoid relationship. What was initiated by the defense mechanisms of repression and projection is now aggravated and perpetuated by self-fulfilling negative expectations and a vicious positive feedback cycle of escalating mutual suspicion, defensiveness, and hostility. Of course there is no shortage of sometimes aggressive and dishonest governments in the world, but the situation is usually not as black and white as our defense mechanisms would have us believe.¹²

Once these distorted perceptions are established and elicit defensive and aggressive behavior, then they beg for rationalization. For now the cognitive dissonance between behavior and self-image demands explanation. Hence, the prevalence of statements to the effect that "we've got to do it," "there's no

other way," "they don't think like us," and, in the extreme case, "they're not really human." Likewise, suffering may be attributed to faults in the victims ("the fair world syndrome") such as "they could solve their problems themselves if they wanted to" or "they're too lazy to work."

When the suffering we produce must be discussed, its emotional impact can be reduced by the mechanism of intellectualization. Thus, "the language of military science has always been devoid of reference to killing people or creating suffering."¹⁸ This mechanism has reached new heights of sophistication among nuclear strategists, whose "nuke speak" is "a strange and bloodless language by which the planners of nuclear war drain the reality from their actions"¹⁵ (p 227). Abstract discussions of "reentry vehicles" (missile warheads), "countervalue" (destroying cities), and "collateral damage" (killing civilians) facilitate planning for, what are in stark reality, strategic methods of producing more deaths and destruction than have occurred in all human conflicts. It seems that the ancient words of Confucius still hold true: "If names be not correct, language is not in accordance with the truth of things. If language be not in accordance with the truth of things, affairs cannot be carried on to success"¹⁸ (p 264). The net result of these defense mechanisms is what Robert Lifton¹⁹ calls "psychic numbing." This is a narcotizing of our awareness that denies the world's reality and our own, replacing them with distorted self-serving images that justify our misperceptions and deceptions, fuel our addictions and aversions, separate and alienate us from others, and further exacerbate the problems they were created to deny.

Fear

When these defenses are examined, it can be seen that they represent *unskillful attempts to deal with fear*. Indeed, from this perspective many international and nuclear threats can be seen as expressions of fear: fear of attack, for our survival, of losing our comforts, of alien lifestyles, of foreign ideologies, and of depletion of economic supplies. This fear then leads to perceptual distortions, stereotypic thinking, mutual defensiveness, weapons buildups, and aggressive posturing, which fuel more fear, which triggers more defensiveness. The result is a vicious positive feedback cycle demanding ever more and more powerful responses.

Reinforcers

Our individual, national, and international behaviors represent choices based on expected reinforcement. Our current difficulties should, therefore, be traceable in part to inappropriate social, economic, and political reinforcement patterns. These patterns are of course incredibly complex, but we can recognize several broad and dangerous trends.

One obvious factor involves the greater potency of immediate rather than

delayed gratification. This differential potency has become increasingly important because we are now dealing with problems whose effects become identifiable only after long periods of time. Pollution, for example, can take years to accumulate to toxic levels, years more before diseases or ecological imbalances are recognized, and decades before cause-and-effect relationships are identified. It may be decades before resource depletion, desertification and deforestation reach critical levels, or before radioactive wastes outstrip temporary storage sites or result in accidents.

Yet, while we are dealing with longer-range consequences than ever before, we are simultaneously reinforcing ourselves, our political leaders, and our military for ensuring short-term gratification. Thus, for example, few politicians have been willing to support legislation to reduce consumption of nonrenewable fossil fuels. For most of them the immediate possible personal consequence of not being reelected outweighs the long-term social consequences of resource depletion, pollution, and economic disruption.

In addition decision makers are now often spatially and emotionally distanced from the consequences of their decisions. Thus, for example, leaders can merely push buttons rather than engage in hand-to-hand combat, or allow millions to starve without ever setting eyes on a hungry person, or pass legislation allowing massive pollution or ecological disturbance while living in far-removed air-conditioned comfort.

In summary, our extraordinarily large and complex hierarchical societies frequently operate to separate decision-makers from the consequences of their decisions. To use the language of sociologists, we appear to have moved in the direction of what Ruth Benedict called low-synergy cultures. The degree of synergy is determined by the extent to which an individual's decisions benefit both self and others simultaneously. The lower the synergy in the culture, the greater the conflict.

If we consider the planet as a whole and the nations as individuals in its global culture, then it is apparent that this global culture is also one of low synergy. Individual nation states function largely as laws unto themselves and are reinforced for dominating economics and resources.

Current social and economic systems also provide strong reinforcement for behaviors that enhance international tensions and arms buildups. One potent reinforcement system is the arms business, which amounts to some 25 to 35 billion dollars per year of trade,²⁰ and employs half the scientists and engineers in the United States and one-half million worldwide.²¹ The economic and social status of millions therefore hinges on the perpetuation, and expansion, if possible, of arms production.

These factors are also closely linked to citizens' lifestyles. For example, our choice to drive our cars rather than use public transportation results in greater gasoline demands. These in turn reinforce suppliers and politicians for increasing immediate supplies even at the cost of greater pollution and

more rapid depletion. In short, each of our individual lifestyle and reinforcement choices is part of a complex chain of reinforcements, which selectively supports related social and political choices.²²

Social Learning Perspectives

Social learning theory also has much to contribute. Here I will focus synoptically on just one dimension, but one of extreme importance; namely, that of the media's role in modeling beliefs, behaviors and lifestyles that both create, and affect our responses to, global threats.

Media impact is a complex issue fraught with emotional charges and countercharges. But emotionalism aside, there seems little question that the media in general, and television in particular, exert enormous psychological and social influence. Reviews of over 3,000 research studies^{23,24} point to effects of television viewing on aggressive and prosocial behavior, cognitive and affective development in children, social beliefs, relationships, and health-inducing and endangering behaviors.

Given the experimentally demonstrated power of television modeling, there is cause for deep concern with the media's preoccupation with violence and warfare, glorification of aggressive and consumptive lifestyles, reliance on sensationalism and emotionalism, and avoidance of deeper analyses of complex controversial issues. One might easily be tempted to agree with those who argue that our success in addressing the major issues of our time may well depend on the extent to which the mass media become agents of thoughtful education, analysis, and consciousness raising rather than largely of distraction and denial as they are now.²⁵

Eastern Psychologies

Considerable evidence now suggests that due to paradigmatic, cultural, and language differences, as well as simple unfamiliarity, we may have significantly underestimated certain Eastern psychologies.²⁶⁻²⁹ Certainly they suggest a wide range of mechanisms relevant to global threats and any truly eclectic and integrative global psychology must take account of them.

Buddhist psychology for example, offers sophisticated analyses of many causes of individual and social pathology. However, it claims that all these causes can be traced to three "root causes": the so-called "three poisons": addiction, aversion, and delusion.

Asian psychologies extend the scope of addiction beyond objects such as drugs and food to which Western psychologists usually limit it. Rather, they suggest that addiction can occur to practically any thing or experience, including material possessions, relationships, beliefs, ideologies, affects, and self-image. Addiction is said to fuel greed, possessiveness, anger, and frustration, to reduce flexibility and choices, and to lead to fear and defensiveness.

Aversion, the desire to avoid or attack unpleasant stimuli, can be regarded as addiction's mirror image and also as a source of anger, attack, fear, and defensiveness. Ancient Buddhists therefore recommended in graphic terms that it be regarded "like stale urine mixed with poison."

The person or country dominated by these forces is necessarily preoccupied with a constant quest to obtain desired situations and experiences and avoid feared ones. Yet as both Eastern and Western psychologists know well, such behavior results in only transient satisfaction and further strengthens the addictive and aversive conditioning.³⁰

Thus, for example, addiction to material comforts results in lifestyles requiring heavy energy and material imports. These in turn make us dependent on foreign suppliers and willing to go to war to defend "our vital interests" there. "The world has enough for everyone's need," Gandhi is quoted as saying, "but not enough for everyone's greed."

Eastern psychologists also point to the dangers of addiction to beliefs and ideologies. We have already discussed the power of beliefs to shape perception and behavior. When to this is added the power of addiction, it is small wonder that whole cultures may live, kill, and die for their beliefs. The current superpower confrontation can therefore be traced in part to a clash between addictions to different ideologies. To the force of these addictions is added that of aversion which follows automatically and clearly lies at the root of a vast proportion of the world's hostility and aggression.

The third of the three poisons is delusion. Our usual state of mind, say Eastern psychologists, is neither clear, optimal, nor wholly rational. Our addictions, aversions, and faulty beliefs filter and distort our perception, motivation, and sense of identity in such powerful yet unrecognized ways as to constitute a form of delusion or psychosis, a form which is rarely appreciated because it is culturally shared.³¹

Such a claim is consistent with the thinking of a number of Western psychologists, such as Erich Fromm,³¹ Willis Harman,³² Fritz Perls,³³ and Charles Tart.³⁴ "If we had to offer the briefest explanation of all the evil that men have wreaked upon themselves and upon their world since the beginning of time . . . it would be simply in the toll that his pretense of sanity takes as he tries to deny his true condition," said Ernest Becker,³⁵ (pp 29-30). However, in general the Eastern psychologists suggest a more subtle and pervasive degree of individual and cultural psychopathology than we in the West have usually accepted.^{37,38,36}

Certainly there is no denying that there is much in the world and our collective behavior that can only be regarded as insanity. "World is said to totter on 'brink of madness,'" cried the headline of an American Psychological Association³⁷ (p 8) publication reporting the conclusions of the 1983 World Congress on Mental Health. The Eastern psychologists would agree and would suggest that recognizing this insanity is a necessary first step for its

cure and the alleviation of the life-threatening global symptoms it has created.

Psychological and Social Immaturity

Fear, greed, aversion, ignorance, unwillingness to delay gratification, defensiveness, and unconsciousness—these are marks of psychological immaturity. They point to the fact that global crises reflect, not only the gross pathology of say a Hitler or an Amin, but even more so the myriad forms of "normal" psychological immaturity, inauthenticity, and failed actualization. This is perhaps most evident in politics, where decisions of enormous import can be shaped by personal insecurities and interpersonal jealousies.³⁸

In daily life, such individual immaturities are usually regarded as unexceptional. "What we call 'normal' in psychology is really a psychopathology of the average, so undramatic and widely spread that we don't even recognize it ordinarily" said Abraham Maslow³⁹ (p 16). This claim of widespread psychological underdevelopment has since found support in studies of ego, moral, and cognitive development.⁴⁰⁻⁴²

Just as the fears, illusions, defenses, and distortions that cause our global crises reflect individual immaturity, so too do they appear to reflect cultural immaturity, distortions, and pathology. Our social goals, mores, beliefs, and norms appear to be at least partly created by, and reinforcing of, these fears, illusions, defenses, and distortions.

From this perspective culture can be seen, not only as a force for education and evolution, but also as a shared conspiracy against self-knowledge and psychological growth in which we collude together to protect one another's defenses and illusions. This sounds like an extreme statement, yet it is hardly a new one. "The effect of society is not only to funnel fictions into our consciousness, but also to prevent awareness of reality," said Erich Fromm³¹ (p 98). For Willis Harman³² and the Eastern psychologists culture is a shared hypnosis; for Ernest Becker³⁵ and Otto Rank,⁴¹ an immortality project supporting death denial, and for Ken Wilber,⁴¹ a system fostering substitute gratifications as much as authenticity and maturity.

Other examples could be given, but the general point should be clear. The threats to our survival can be traced to psychological and social immaturities, inauthenticities, and pathologies. These represent higher-order variables or syndromes which act through the mediation of the lower-order variables such as fear, defensiveness, etc., which we have already examined. Thus our survival may depend on our individual and collective maturation and this issue is discussed in detail in a subsequent section.

PSYCHOLOGICAL PRINCIPLES OF SKILLFUL RESPONSES

Is it possible for us to apply our psychological understanding to our contemporary crises and become effective therapists to the world? At first

thought such an idea may seem ridiculous and naive, laughable in its hubris, and Pollyannaish in the face of the enormity of our difficulties. Cynicism and despair may well seem more reasonable and realistic responses. Yet such cynicism and despair are among the causes of our difficulties and must themselves be subject to psychological exploration if we are to move beyond immobilization to contribution.¹⁴

Yes, it is true that we cannot know whether we will succeed and our best efforts may seem insignificant when measured against the vastness of ignorance and suffering in the world. It is also true that it may seem easier to avoid the issues entirely and to willingly succumb to what Kierkegaard called "tranquilization by the trivial," losing ourselves in the countless distractions that our culture offers us. But it is also true, as will be discussed, that such tranquilization is purchased only at great cost to personal authenticity and actualization, and, if sufficient numbers opt for this decision, perhaps also at the cost of our planet and species. Let us therefore confront the fears of both hubris and hopelessness and see how we might apply our skills at the global level. For as Erich Fromm¹⁵ concluded in the last interview of his life, "we must not give up . . . we must try everything to avert disaster."

The following, then, are hypothesized principles intended to address aspects of the causative deficiencies, distortions, and defenses identified in the previous section

Beliefs

We are what we think
All that we are arises with our thoughts
With our thoughts we make the world.
*The Buddha*¹⁶ (p. 3)

Combinations of beliefs constitute images: of ourselves, of others, of the world, and of the future. Considerable evidence suggests that "the underlying images held by a culture or person have an enormous influence on the fate of the holder"¹⁴ (p. 214). When the dominant images of a culture are attractive and anticipatory, providing positive and uplifting yet realistic visions of what might be, then they tend to lead and direct social change. However, when traditional images lag behind cultural progress and fail to adequately address novel situations and demands then a period of social turmoil and even crisis develop. Various indicators suggest that our culture may be nearing, if not already be at, such a stage.^{17,18}

In choosing our beliefs we are therefore also choosing the images that will guide, create, and pull us, along with our culture, into the future. The following, then, are beliefs that, it is hypothesized, may be beneficial for us to adopt. They can be divided into categories of beliefs about (1) the nature of

beliefs; (2) ourselves; (3) others; (4) about the world; and (5) nuclear weapons and warfare.

1. *Beliefs about the nature of beliefs.*

a. Beliefs operate as powerful yet usually unrecognized self-fulfilling prophecies.

This hypothesis and the evidence supporting it have already been discussed. It represents a foundation that may motivate the conscious examination and selection of individual and cultural beliefs in line with the following hypotheses.

b. Our ideologies reflect belief systems.

When we remember that our ideologies reflect beliefs, guesses, and models of the world and not "the Truth," then there may be less risk of becoming addicted to them, and killing and dying for them. Likewise, there may be less risk of denying the possible value and validity of alternate views.

c. It is possible to choose skillful beliefs.

Sidestepping the never-ending debate over free will versus determinism, this belief suggests that we can "will to believe" with William James or consciously "choose to believe."¹⁹ We do not have to be helpless victims of our beliefs, though the exquisite paradox is that we can choose to believe we are.

2. *Beliefs about ourselves.*

a. I (and each of us) can make a useful and unique contribution.

This belief is an antidote to beliefs underlying feelings of hopelessness, inadequacy, powerlessness, and despair. Its importance is supported by evidence that our beliefs about our effectiveness function as self-fulfilling prophecies.²⁰

b. Developing a psychology of human survival may be a crucial contribution that we can make.

This, of course, is the major thesis of this paper.

3. *Beliefs about others and our relationship to them.*

Skillful choices here would aim to counter beliefs that tend to degrade, dehumanize, blame, and attack other individuals and groups or separate and alienate us from them. Beliefs that heighten empathy and trust through acknowledging our shared humanity, experiences, struggles, and aspirations may therefore be helpful, as for example:

a. Despite diverse cultural and ideological backgrounds, we all share a common humanity with similar existential givens, fears, defenses and aspirations.

b. Though this common humanity exhibits diverse expressions, greater familiarity and understanding of others will result in greater empathy and recognition of commonality.

c. Our expectations (beliefs) of others tend to be self-fulfilling.

This principle, however, like the Pygmalion effect, has obvious implications for international situations where so often antagonists seem to expect, and thus elicit, the worst from each other, thereby validating Jerome Frank's⁴ maxim that "enemies become what they believe each other to be."

It is important to note here the distinction between willingness to trust and gullibility. Contrary to popular belief they are not equivalent and recent studies suggest that high trusters are no more likely to be victimized than low trusters. In addition, high trusters may be happier, more likeable and psychologically healthy, and more trustworthy themselves.⁵⁰

4. *Beliefs about the world.*

a. The global threats to human survival and wellbeing may be solvable.

Here lies the fundamental belief about the world on which are based essential beliefs about individual problems such as: we can grow enough food, alleviate poverty, limit nuclear weapons, reduce pollution, and stabilize the ecosystem. Without choosing beliefs such as these we have no motivation to even begin solving our difficulties.

Tackling these problems is among the most urgent priorities confronting us all.

So obvious as to be almost trite, but how many of us really live our lives as though it were true?

5. *Beliefs about weapons and warfare.*

It seems particularly important to question potentially omnicidal beliefs about nuclear weapons and beliefs that legitimize and glorify war by acknowledging that:

a. Nuclear superiority may not be attainable.

b. It may not be possible to limit nuclear wars once they are begun.

c. Nuclear war may not be winnable.

d. Large-scale nuclear war may result in such destruction and ecological disruption as to destroy civilization.

e. War may no longer be justifiable as a means of obtaining national goals.

These, then, are some of the beliefs that may provide a meaningful context and worldview for (a psychology of) human survival.

Education

As was described earlier, many faulty beliefs and behaviors can be traced to ignorance or defenses against recognizing the true nature of our situation. It therefore follows that:

1. Corrective education is essential.

"For the long pull, main reliance must be placed on the education and training of upcoming generations.⁶ Who would disagree? Yet how many schools and universities offer adequate courses on global problems and human survival and how many psychology or psychiatry departments offer

courses on their psychological roots? Here, then, is a vital role for mental health professionals.

2. To be most effective education should include information about both the state of the world around us and the psychological forces within us which create it.

3. We need to educate both ourselves and others.

As always, the ignorance of others is obvious; our own less so. Yet as so many people have pointed out, self-education is a critical first step in becoming an effective activist in this arena.

Reinforcers

1. It will be important to provide greater reinforcement for decisions that take long-term consequences into account.

2. It may be important to provide increased information, e.g., environmental impact reports and feedback on the costs and benefits particularly long-term ones, of economic, industrial, and legislative decisions.

3. Differential reinforcement can be applied more effectively to reinforce lifestyles and consumption patterns of greater ecological appropriateness.

Both industrialists and consumers currently receive little or no reinforcement for ecologically sensitive choices.¹¹ For example in the United States oil, gas, and nuclear power receive billions of dollars of government subsidies each year whereas renewable resources get pennies by comparison.¹² Ecological choices could be selectively reinforced by modifying economic and social incentives and taxes, for example, by raising the price of non-renewable resources and reducing those of renewable ones.

4. Lifestyles emphasizing voluntary simplicity may not only be essential but may also prove inherently more satisfying, particularly for the psychologically mature,^{22,23} than lifestyles that emphasize high consumption.

Of course this has long been a central claim of religious sages and social activists such as Gandhi. "The fewer the necessities the greater the happiness" is the theme they echo³⁴ (p 143). Likewise at the cultural level Arnold Toynbee³⁵ found that mature cultures display "progressive simplification": an increasing attraction of the more subtle nonmaterial satisfactions of life. Voluntary simplicity may thus be both a means to, and an expression of, psychological maturity and satisfaction. If this is so then the combination of material necessity and conscious choice, particularly if supported by education and economic reinforcers, may encourage increasingly ecologically appropriate and voluntarily simple lifestyles.^{22,36}

5. International tensions might be reduced by choosing patterns of mutual reinforcement.

Behaviorists are well aware that low rates of mutual reinforcement are both cause and effect of deterioration in marriages in particular, and relationships in general.³⁷ Many international tensions also can be viewed

as expressions of chronic low rates of mutual reinforcement and high rates of mutual punishment. These in turn exacerbate negative mutual beliefs and expectations, distrust, paranoia, and unfavorable images of the enemy. The result is a spiral of increasing tension and animosity.

Behaviorists have had significant success with marital therapies based on education about mutual reinforcement patterns and encouragement to increase reinforcement. Of course, skillful politicians probably recognize these mechanisms intuitively, but it seems reasonable to believe that increased awareness and conscious application of them could result in improvements in international relations.

Social Learning Theory and the Media

Given the awesome psychological and social power of the media, it may be crucial to encourage them to offer more socially relevant programming and prosocial models.^{23,24,25}

Mental health professionals have a great deal to contribute here. There research has already demonstrated the multiple and frequently deleterious effects of current media programming. These contributions can be expanded by extending research and using their findings to educate the public, the media, and legislators about the psychological, social, and global implications of media content. In doing so, mental health professionals have the opportunity of becoming an invaluable advocacy group, unique in offering unbiased, experimentally based information coupled with nonpartisan concern for social and global welfare.

Skillful Actions Reduce Fear and Defensiveness

If fear and defensiveness represent two of the major psychological forces jeopardizing our survival, then it follows that one of our major tasks is to work towards lifestyles and international relations that minimize them. Our task then is to enhance a sense of mutual trust and safety. This is a familiar problem for family therapy and this model points to several useful principles.

Participants in the cold war can be seen as enmeshed in a vicious self-perpetuating cycle of mutual paranoia in which each seeks an elusive security through threatening and condemning the other.¹² The first principle of successful intervention involves assisting participants to recognize the destructive, reciprocal, and self-perpetuating nature of this process. Reducing one's threats, condemnation, and claims for self-righteous superiority must be recognized, not as signs of weakness, but rather as courageous and essential steps for reducing the antagonist's level of paranoia and belligerence, which in turn may enhance one's own sense of trust and safety. Such a process can set in train a "graduated reciprocation in tension reduction" (GRIT).⁴⁶

For similar reasons the family-therapy model would also encourage commitments to greater communication, honesty, and ethicality, knowing that such a commitment from one partner may allow the other to feel less defensive and become in turn more honest and ethical. "Ours is a world of nuclear giants and ethical infants," said General Omar Bradley, and the costs in terms of international conflict are all about us.

Closely related to the costs of ethical infancy are the costs of poor communication. The tendencies of conflicting groups to adopt rigid, stereotyped images of one another are reinforced when adequate information is lacking. Unfortunately withholding information and spreading misinformation are frequently adopted as deliberate policy. In Iron Curtain countries censorship is routine while in the United States there existed for many years "the unwritten law that Americans remain entirely ignorant of Soviet communism. Teachers were fired for teaching about it; people lost jobs for reading about it"⁴¹ (p 34). Unfortunately we tend to be particularly fearful of the unknown. The net result is that hundreds of billions of dollars are spent and nuclear war is threatened out of fear of people who exist in one another's minds largely as shadow figures constructed from misinformation and myth.

Skillful Responses Will Reinterpret Motivation

Maslow's hierarchy of needs distinguished between motives based primarily on a sense of inadequacy, need, or deficiency (D-motives) and those stemming from a sense of sufficiency or wellbeing (Being, or B-motives).^{42,43} Increasing degrees of psychological wellbeing are associated with a shift from the deficiency to the Being end of the spectrum. Similar hierarchies and shifts are also described in other Western and Eastern psychologies.^{41,44}

Using this simple dichotomy anything we and other people say or do can be interpreted as either an expression of sufficiency and wellbeing or of deficiency and fear. The critical question is whether we are able to recognize the sense of deficiency and fear, both in ourselves and others, underlying the many behaviors through which it may be expressed, including even anger, threats, demands, and attack.

This reinterpreting of motivation—of reattributing or reframing it, as cognitive and neurolinguistic therapists would call it^{45,46}—should not be confused with a Pollyannaish denial of destructive motives such as greed and self-aggrandizement. Rather, it represents a denial of the denial of the underlying motives such as fear and inadequacy which power them. This recognition is of course a *sine qua non* for successful psychotherapy and constitutes the basis for compassion. It must be noted that compassion does not mean allowing someone to walk over you. Rather, it implies an empathic understanding of the deeper motives underlying unskillful behavior. This understanding cuts through automatic responses such as fear and

paranoia, then anger and attack,⁴⁷ and may begin mutual reinforcement cycles.

Skillful Responses Search for Areas of Commonality and Shared Purpose

Family therapists and organizational psychologists know that one of their first tasks is to help their clients recognize areas of shared purpose and commonality. As global therapists for our deeply interconnected and interdependent "global village," we would want to do the same.

So many of our contemporary difficulties are no respecters of traditional boundaries. Ecological imbalances, pollution, and radioactive contamination do not halt politely at international borders. The interconnected, holocoenetic (each part effects every other part) nature of our biosphere and of contemporary economic, social, and cultural systems is becoming more and more evident. Increasingly, what we do unto others we also do unto ourselves.

As global therapists we would therefore want to aid recognition of the shared superordinate threats such as nuclear holocaust and ecological disturbances facing us all, recognizing that superordinate threats are among the most potent forces for encouraging collaboration. Experiments suggest that cooperation on tasks that no one group can accomplish alone may be the most effective way of resolving mutual hostility.⁴⁸ We would also want to recognize the economic, social, and psychological costs of the arms race and of the ways in which poverty heightens national and international tensions, restricts trade, imposes suffering on the poor, and demands a degree of unconsciousness and "false consciousness" in the wealthy.

We would also want to acknowledge our shared humanity underlying cultural and ideological differences. Certainly we would want to recognize that we all share in the fears, misunderstandings, errors, and defenses which have created the conflicts and suffering that surround us. But we would also want to acknowledge our common human strengths; the shared hopes, ideals, and altruism that make us seek, often in foolish and unskillful ways, the happiness and wellbeing, love and belongingness we all desire. For in our increasingly interdependent world, it may well be that as Martin Luther King said, we will live together as brothers or die together as fools.

PSYCHOLOGICAL EFFECTS OF GLOBAL CRISES

The distinct possibility of our individual, cultural, and species extinction impacts everything in our lives in ways both obvious and subtle, immediate and far-reaching. Consequently, we face a time of great stress and challenge, risk and opportunity, and potential regression or evolution. On the one hand, we may respond defensively with an exacerbation of the fear, defensiveness, inauthentic choices, and unskillful behaviors that created our

dilemma. On the other hand, we may use the situation to spur ourselves to a reconsideration of our values and choices, and of the psychological dynamics from which they spring, thereby effectively accelerating our individual and cultural maturation. Never in the course of human history have the stakes been higher.

Negative Psychological Effects

What, then, are the negative psychological effects these dangers create? Obviously the threats to human survival can constitute major stressors and presumably may create all the complications which can attend any major stress.

As yet, empirical studies of these complications are few, and largely limited to the impact of nuclear threats in developed countries. Clearly nuclear concerns have embedded themselves deeply into the psyche of both adults and children. A significant number of children, both Soviet and American, expect a nuclear war within their lifetime, doubt that they themselves will survive, and report feelings of anger, impotence, and despair.⁴⁹

Presumably the massive life-threatening stresses faced by hundreds of millions in the Third World may produce severe psychological complications of all kinds and fuel not only individual psychopathology but resentment, violence, and social breakdown.

In all countries, we might expect many of the same psychological defenses, distortions, and inauthenticities that contributed to global crises also to be exacerbated by these crises. Here we may be involved in a vicious cycle in which defenses are both cause and effect. In addition, inasmuch as we fail to respond appropriately, then we might expect further reactions such as "survivor guilt" and the guilt of failed idealism.

Possible Beneficial Effects

On the other hand, these threats may also afford us great opportunities. Unprecedented challenges such as these might strip away our defenses and call us to examine our individual and collective lives with new urgency and depth. There is even the possibility of using our current dilemma to consciously cultivate our sensitivity to these existential issues. Existential and Eastern psychologies in particular emphasize using the awareness of death as a spur to fuller, more conscious and more choiceful living. In the words of Sigmund Freud⁵⁰ (p. 299) "If you want to endure life, prepare yourself for death."

To open ourselves fully to the existential givens of life is not only one of the hallmarks of psychological maturity, but also one of its causes.^{71,72} For in the light of our own mortality, of the enormity of preventable suffering in the world, of the rampant inhumanity, greed, hatred, delusion, and defensive-

ness, and of our precarious existence we are forced to question anew the meaning, purpose, and appropriateness of our lifestyles, work, relationships, and national goals. And to the extent we confront these questions authentically and fully, to that extent we are likely to choose to respond in helpful ways which also foster maturity and adaptation. The only alternative to nonmaturity and noncooperation may be nonexistence.

The Call to Service

Inasmuch as we respond to our current dilemma with maturing responses, then service and contribution may be among these since both research and theory indicate that psychological maturity is associated with a greater orientation toward service.^{14,15,16} But whether significant degrees of psychological maturation occur or not, it may well be that increasing numbers of people will be moved to contribute, and one of today's more hopeful signs is the rapidly growing number of people, including psychologists, addressing global concerns.

Certainly we need contributions of all kinds, including traditional letter-writing, financial donations, educational and political activities, and more. But inasmuch as the roots of the problems are psychological, then we especially need people who are not only effective activists but also understand the underlying psychological issues.

Since many of the causes of our crises stem from normative cultural beliefs and values, then the effectiveness of the people will depend on the degree to which they can extract themselves from limiting and distorting cultural biases. This is the process of "detribalization," by which a person matures from an ethnocentric to a global worldview, develops "perspective-ism" (the capacity to take other people's perspective), and become "less dependent upon tribal rewards, more questioning of tribal values, more able to look on life from a universalistic perspective."¹⁷ Such a person no longer looks through, but rather looks at the cultural filters and hence can work on them.¹⁸

In short, we need people of wisdom and maturity who not only work to relieve suffering, but also use their work for psychological growth, learning, and awakening of themselves and others. This process of "service-learning" as it is sometimes called is of course a form of the millennia-old tradition of karma yoga, the discipline in which service and work are viewed as opportunities for learning and awakening. The aim is impeccable service that optimally relieves suffering and awakens both self and others. In doing so, it aims at inclusive treatment of both symptom and cause, self and other, psychic and world.

Mental health professionals may be in particularly strategic positions to make significant contributions. Individuals can provide public and professional education through lecturing, writing, and media, or by establishing

relevant courses, can offer consultation to individuals and groups working on these issues, can do background research and study, and can counsel the growing numbers of people who are psychologically distressed by current events. Groups and organizations of mental health professionals can meet for discussion, self-education, and mutual empowerment, create task forces and resource groups, organize conferences and courses, support and lobby for relevant education and research, and disseminate their conclusions. Mental health professionals can do all these and more. But in addition, in everything they do they have the unique opportunity to increase understanding of the crucially important psychological factors which must be recognized if we are to deal adequately with our current crises.

It may be, therefore, that it is time for us to create a new discipline, "a psychology of human survival": a discipline drawing on the insights of all schools of psychology, linking and facilitating all those from all nations, races, and groups who wish to apply their expertise to these, the most urgent issues of our time, unveiling the psychological forces which have brought us to this turning point in history, working to transform them into forces for our collective survival, wellbeing, and fulfillment, and thereby pointing beyond itself to a new way, not just of survival, but of human survival and wellbeing. Such a discipline might provide not only a catalyst for work in this area, but also a context and vision for psychology as a whole. It might also serve as a model for other fields in which we might create, for example, a sociology, economics, or philosophy of human survival.

Perhaps Abraham Maslow¹⁹ was not entirely hypothetical when he said of psychologists that "the future of the human species rests more upon their shoulders than upon any groups of people now living." Never in the course of human history have the needs and opportunities for contribution in general, and psychological contribution in particular, been greater.

SUMMARY

Within recent decades, nuclear weapons, environmental deterioration, population explosion, resource depletion, and food scarcity have put human survival at ever-increasing risk. Moreover, for the first time in history, all these major global threats are human-caused and can thus be traced in large part to psychological origins. Therefore, if we are to respond appropriately to these, the most urgent issues of our time, then psychological contributions may be essential.

This paper therefore attempts to provide a framework of a psychology of human survival. A brief overview of the nature and extent of current threats is presented, followed by suggested criteria for an adequate psychology of human survival. The causes of the contemporary threats are then examined from cognitive, behavioral, social learning, Eastern, psychodynamic, social, existential and developmental perspectives. Psychological principles

underlying effective responses are then deduced, and the psychological effects these threats exert on us, both individually and collectively, are examined. Ways in which mental health professionals may contribute are discussed, and it is suggested that the development of a psychology of human survival may be one of the most crucial tasks facing our generation.

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REFERENCES

1. Schell, J. The Abolition: Defining the Great Predicament. *The New Yorker*, No. 36, 1984.
2. Bradi, W. *North South: A Program for Survival*. MIT Press, Cambridge, MA, 1980.
3. Presidential Commission on World Hunger. *Preliminary Report of The Presidential Commission on World Hunger*. U.S. Government Printing Office, Washington, D.C., 1979.
4. Council on Environmental Quality. *The Global 2000 Report to the President*. U.S. Government Printing Office, Washington, D.C., 1979.
5. Schell, J. *The Fate of the Earth*. Knopf, New York, 1982.
6. Svard, R. *World Military and Social Expenditures*. World Priorities, Leesburg, VA, 1986.
7. Walsh, R. *Staying Alive: The Psychology of Human Survival*. New Science Library/Shambhala, Boston, 1984.
8. Frank, J. *Sentry and Survival in the Nuclear Age: Psychological Aspects of War and Peace*. Random House, New York, 1982.
9. Walker, K. *The Spectrum of Consciousness*. Quercus, Wheaton, IL, 1977.
10. Bandura, A. Self Efficacy: Toward a Unifying Theory of Behavioral Change. *Psychol. Rev.*, 84:191-215, 1977.
11. Morton, R. *Social Theory and Social Structure*. Free Press, Glencoe, IL, 1957.
12. Dornet, M. The Prevention of World War III: A Psychological Perspective. *Political Psychology*, 4:3-31, 1983.
13. Brown, L. *Building a Sustainable Society*. W. W. Norton, New York, 1981.
14. Macy, J. *Dezorp and Personal Power in the Nuclear Age*. New Society Publishers, Philadelphia, 1983.
15. Barham, D., and Lipman, J. *Step Nuclear War: A Handbook*. Grove, New York, 1982.
16. Laughlin, H. *The Edge and Its Defenses: Applications-Century-Crisis*. New York, 1970.
17. Jervis, R. *Perception and Misperception in Foreign Affairs*. Princeton University Press, Princeton, NJ, 1976.
18. Leggett, J. *Ed. Confusion Analytic: The Great Learning and the Doctrine of the Mean*. Princeton, NJ, 1976.
19. Lifton, R. In a Dark Time. In *The Final Epidemic: Physicians and Scientists on Nuclear War*. Adams, R. and Gulien, S., Eds., Education Foundation for Nuclear Science, Chicago, IL, 1981, pp. 7-20.
20. Svard, R. *World Military and Social Expenditures*. World Priorities, Leesburg, Va., 1981.
21. Callicott, H. *Nuclear Madness: What You Can Do*. Autumn Press, Brookline, 1978.
22. Elgin, D. *Voluntary Simplicity*. William Morrow, New York, 1981.
23. Pearl, D. Boudinick, L. and Lazar, J., Eds. *Transition and Behavior: Ten Years of Scientific Progress and Implications for the Eighties* (Vols 1 & 2). U.S. Government Printing Office, Washington, D.C., 1982.
24. Rubenstein, E. *Television and Behavior: Research Conclusions of the 1982 NIMH Report and Their Policy Implications*. *Am. Psychol.*, 38:8-20-25, 1983.
25. Elgin, D. *The "Communication Rights" Movement: A Response to National and Global Challenges*. Video-Democracy, Menlo Park, CA, 1983.
26. Walsh, R. *The Consciousness Disciplines and the Behavioral Sciences: Questions of Comparison and Assessment*. *Am. J. Psychology*, 137:663-73, 1980.
27. Walsh, R. *Two Asian Psychologies and Their Implications for Western Psychotherapists*. *Am. J. Psychotherapy*, 42:543-60, 1988.
28. Walsh, R. *Asian Therapies*. In *Current Psychotherapies*, 4th ed. Cortesi, R. and Wedding, D., Eds. F.E. Peacock, Ilassca, IL, 1989.
29. Walsh, R. and Vaughan, F., Eds. *Beyond Ego: Transpersonal Dimensions in Psychology*. J. P. Tarcher, Los Angeles, 1980.
30. Goddard, J. *The Experience of Insight*. New Science Library/Shambhala, Boston, 1982.
31. Fromm, E. *Zen Buddhism and Psychoanalysis*. Harper & Row, New York, 1970.
32. Harman, W. *Old Wine in New Winkles: In Challenges of Humanistic Psychology*. Bugnival, J., Ed. McGraw Hill, New York, 1982.
33. Perls, F. *General Therapy Verbatim*. Real People Press, Lafayette, CA, 1969.
34. Tani, C. *States of Consciousness*. Dutton, New York, 1975.
35. Becker, E. *The Denial of Death*. Free Press, New York, 1973.
36. Shapiro, D. H. and Walsh, R., Eds. *Mediation: Classic and Contemporary Perspectives*. Aldine, New York, 1984.
37. American Psychological Association. *The Monitor*, 14:8, 1983.
38. Horvath, S. *The Price of Power*. Summit, New York, 1983.
39. Malinow, A. H. *Toward a Psychology of Being*. Van Nostrand, Princeton, NJ, 1968.
40. Kohlberg, L. *Essays on Moral Development* (Vol. 1): *The Philosophy of Moral Development*. Harper & Row, New York, 1981.
41. Loewinger, J. and Knoll, E. *Personality, Senses, Traits and the Self*. *Psychol. Rev.*, 34:195-222, 1983.
42. Wilber, K. *The Atman Project*. Quercus, Wheaton, IL, 1980.
43. Rank, O. *Beyond Psychology*. Dutton, New York, 1956.
44. Fromm, E. Erich Fromm's Last Interview. *Psychiatric News*, 15:20, 1980.
45. Byron, T. *The Shaman's Path: The Secrets of the Buddha*. Viking, New York, 1976.
46. Markley, O. *Human Consciousness in Transformation*. In *Evolution and Consciousness: Human Systems in Transition*, Jantsch, E. and Waddington, C., Eds. Addison-Wesley, Reading, MA, 1974, pp. 214-29.
47. Jantsch, E. and Waddington, C., Eds. *Evolution and Consciousness: Human Systems in Transition*. Addison-Wesley, Reading, MA, 1974, pp. 214-29.
48. Markley, O. and Harman, W., Eds. *Changing Images of Man*. Pergamon, New York, 1982.
49. Globus, M. and Globus, G. *The Man of Knowledge: In Beyond Health and Normality: Explorations of Exceptional Psychological Wellbeing*. Walsh, R. and Shapiro, D., Eds. Van Nostrand Reinhold, New York, 1983, pp. 294-318.
50. Rotker, J. B. *Interpersonal Trust, Trustworthiness and Gullibility*. *Am. Psychol.*, 35:1-7, 1980.
51. Schwabeder, E. *Small is Beautiful: Economics as if People Mattered*. Harper and Row, New York, 1973.

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52. Henderson, H. *The Politics of the Salaried Anchor/Doubleday*, Garden City, NY, 1981.
53. Mitchell, A. *The Nine American Literates*. Macmillan, New York, 1981.
54. Longhenep, *Kindy Banti in East LA, Part I: Mind*. Dharmas, Emeryville, Ca, 1975.
55. Toyne, A. *A Study of History, Oxford University Press*, New York, 1934.
56. Eigan, D. *The Tao of Personal and Social Transformation*. In *Beyond Age: Transpersonal Dimensions in Psychology*. Walsh, R. and Vaughan, F., Eds. J. P. Tarcher, Los Angeles, 1980, pp 248-56.
57. Aron, N., Nester, B., and Jones, R. *Reciprocity Counseling: A Rapid Learning Based Procedure for Marital Counseling*. *Behav. Res. and Therapy*, 11:365-82, 1973.
58. Singer, D. *A Time to Reexamine the Role of Television in our Lives*. *Am Psychol*, 38:815-16, 1983.
59. Singer, J., and Singer, D. *Psychologists Look at Television: Cognitive Developmental, Personality, and Social Policy Implications*. *Am. Psychol*, 38:826-34, 1983.
60. Osgood, C. *An Alternative to War or Surrender*. University of Illinois Press, Urbana, IL, 1962.
61. Willett, H. *The Trustee Factor: How Business Executives Can Help Solve the Nuclear Weapons Crisis*. William Morrow, New York, 1983.
62. Walsh, M. and Barwell, L. *Maslow Reconsidered: A Review of Research on the Need Hierarchy Theory*. *Organiz. Behav. and Human Performance*, 15:212-40, 1976.
63. Maslow, A. H. *The Further Reaches of Human Nature*. Viking Press, New York, 1971.
64. Walsh, R. and Vaughan, F. *Towards an Integrative Psychology of Wellbeing*. In *Beyond Health and Normality: Explorations of Exceptional Psychological Wellbeing*. Walsh, R. and Shapiro, D. H., Eds. Van Nostrand Reinhold, New York, 1983, pp. 388-431.
65. Bauder, R. and Orlander, J. *Frags into Frayers: Neurolinguistic Programming*. Real People Press, Moab, UT, 1979.
66. Mahoney, M. *Cognitive and Behavior Modification*. Ballinger, Cambridge, MA, 1974.
67. White, R. *Experimenting with the rulers of the USSR*. *Psol. Psychol*, 4:121-37, 1963.
68. Scheff, M., Harvey, O., White, E., et al. *Intergroup Conflict and Cooperation: The Robbers' Case Experiment*. University of Oklahoma Press, Norman, OK, 1961.
69. Adams, R. and Cullen, S. *The Final Epidemic: Physicians and Scientists on Nuclear War*. Educational Foundations for Nuclear Science, Chicago, 1981.
70. From, S. *Thoughts for the Times*. In *The Standard Edition of the Complete Works of Sigmund Freud*, Vol. XIV. Strachey, J., Ed. Hogarth Press, London, 1953, p. 299.
71. Walsh, R. and Shapiro, D. H. *Beyond Health and Normality: Explorations of Exceptional Psychological Wellbeing*. Van Nostrand Reinhold, New York, 1983.
72. Valero, L. *Exceptional Psychology*. Basic Books, New York, 1980.
73. Heath, D. *The Maturing Person*. In *Beyond Health and Normality: Explorations of Exceptional Psychological Wellbeing*. Walsh, R. and Shapiro, D. H., Eds. Van Nostrand Reinhold, New York, 1983, pp. 152-205.
74. Werman, A. *Individualism and Interdependence*. *Am. Psychol*, 36:762-73, 1981.
75. Leisman, D. J. *The Seasons of a Man's Life*. Knopf, New York, 1978.
76. Maslow, A. H. *A Philosophy of Management*. Lecture presented to Cooper Union, New York, 1956.