

Earthly Dimensions of Peace: The Earth Charter

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Cultures of peace will not be possible without a concerted effort to bring about global environmental security. Attempts to build sustainable cultures through international treaties have been disappointing. Nongovernmental groups have a better track record for promoting sustainable cultures. This article describes the psychological potential of the *Earth Charter*, a document written primarily by and for nongovernment organizations and world citizens, for soliciting committed environmental action from people throughout the world. After analyzing key features of the Charter, we discuss empirical support for its premise that moral responsibility leads to improved environmental behaviors. We conclude that peace psychologists have important roles to play in educating and promoting environmentally responsible behaviors throughout the world.

Cultures of Peace will require the best of our human capacities, including that we learn how to protect our global environment. To do so, we will need to reverse the 20th century's pattern of overspending the earth's physical resources. As a global community, we are quickly losing the ability to support life in all of its diversity and evolutionary potential. Most readers will recognize that major indicators of the earth's environmental health are in decline. For example, global warming; loss of the earth's ozone layer; deforestation; species extinction; ex-

haustion of fisheries, agricultural land, and water supplies; acid rain and other forms of toxic pollution; overpopulation; and overconsumption all threaten the earth's carrying capacity to support human life (Oskamp, 2000; Pawlik, 1991; Stern, 1992; Stern & Oskamp, 1987; Union of Concerned Scientists, 1993). At a global level, the diminishment of natural resources is on a collision course with increasing population and poverty. If we do not reverse this global dynamic, we can expect human suffering to rapidly escalate.

Moreover, reduced carrying capacity will trigger wars. As Kaplan (1994) put it a few years ago, environmental security "will be the national security issue of the next century" (p. 58). But we don't have to strain our imaginations to the future to visualize armed conflict over scarce resources. Less than 10 years ago, the Persian Gulf War was primarily about access to uninterrupted oil supplies, and chronic tensions in the Middle East are still exacerbated by the fossil fuels located there. Most would agree that the United States would not have armed Saudi Arabia as it has without the need to establish its presence in that region to safeguard its access to oil. In other centuries, scarce water, instead of oil, has triggered war in the Middle East, and unequal access to water still feeds tensions between Israel and Palestine today, as Israel uses 8 to 10 times the amount of water that Palestine does. Moreover, many recent wars attributed to ethnic and political causes have been exacerbated, if not caused, by ecological failures. For example, the recent genocides in Rwanda and Cambodia were both stimulated by widespread agricultural disasters. Because it often advantages political leaders to couch their battles in ethnic terms, the media have been prone to miss the important role played by environmental factors in precipitating armed conflict (Wessells, 1996; Winter, 1997; Merimbe, 2000).

The use of natural resources is susceptible to conflict for a variety of reasons. First, natural resources exist in an environment or interconnected space where actions by people or groups often produce distant repercussions. Second, natural resources also have social significance with respect to complex and unequal relations among social actors. Third, natural resources are subject to increasing scarcity because of increasing demand, unequal distribution, and rapid social changes. Fourth, natural resources have symbolic value and represent the differences in power and status between people (Buckles, 1999). Thus, any serious attempt to create cultures of peace will need to address environmental security.

In this article, we analyze global efforts to build environmental security and conclude that on the whole, nations' efforts have been disappointing. However, nongovernmental groups have been very effective in facilitating sustainable cultures. Because the Earth Charter was written for the public at large, we are interested in examining the contributions that psychology can provide to make it an effective ethical tool. We analyze it for its psychological implications. We review empirical research testing the main premise of the Charter, that moral responsibility and shared identity lead to wise environmental choices. We

conclude by suggesting that peace psychologists can play important roles in building environmental security by studying, analyzing, and promoting environmental responsibility.

INTERNATIONAL EFFORTS TO BUILD ENVIRONMENTAL SECURITY FOR GLOBAL PEACE

The crucial link between environmental security and global peace is not a new revelation: The United Nations (UN) has been articulating the link between peace and environmental health for many decades. One of the earliest attempts to bring nations together to find ways to build global environmental security occurred in 1972, when national leaders gathered in Stockholm, Sweden for the UN Conference on the Human Environment. As a result of the Stockholm meeting, the UN established the Environment Programme, with the hope that nations would work collaboratively to build environmental protections on a global level.

Twenty years later, an impressive global meeting on environmental security convened in Rio, Brazil, for the UN Conference on Environment and Development (UNCED). UNCED pulled together the largest gathering of world leaders in the history of the planet (a record kept until September 2000, when the Millennium Summit of the General Assembly of the UN eclipsed it). UNCED produced an inspired, though not widely known, document called *Agenda 21*, in which the connections between peace, sustainable development, and environmental protection were fully articulated in over 800 pages. Leaders from 180 nations signed this document, promising to reduce consumption, pollution, overpopulation, poverty, and excessive militarization. *Agenda 21*'s Preamble illustrates its imperative tone and broad promises:

1.1 Humanity stands at a defining moment in history. We are confronted with a perpetuation of disparities between and within nations, a worsening of poverty, hunger, ill health and illiteracy, and the continuing deterioration of the ecosystems on which we depend for our well-being. However, integration of environment and development concerns and greater attention to them will lead to the fulfillment of basic needs, improved living standards for all, better protected and managed ecosystems and a safer, more prosperous future. No nation can achieve this on its own; but together we can—in a global partnership for sustainable development.

1.2 This global partnership must build on the premises of General Assembly resolution 44/228 of 22 December 1989, which was adopted when the nations of the world called for the United Nations Conference on Environment and Development, and on the acceptance of the need to take a balanced and integrated approach to environment and development questions.

1.3 *Agenda 21* addresses the pressing problems of today and also aims at preparing the world for the challenges of the next century. It reflects a global consensus and

political commitment at the highest level on development and environment cooperation. Its successful implementation is first and foremost the responsibility of Governments. National strategies, plans, policies and processes are crucial in achieving this. International cooperation should support and supplement such national efforts. In this context, the United Nations system has a key role to play. Other international, regional and subregional organizations are also called on to contribute to this effort. The broadest public participation and the active involvement of the non-governmental organizations and other groups should also be encouraged.

1.4 The developmental and environmental objectives of Agenda 21 will require a substantial flow of new and additional financial resources to developing countries, in order to cover the incremental costs for the actions they have to undertake to deal with global environmental problems and to accelerate sustainable development. Financial resources are also required for strengthening the capacity of international institutions for the implementation of Agenda 21. An indicative order-of-magnitude assessment of costs is included in each of the programme areas. This assessment will need to be examined and refined by the relevant implementing agencies and organizations.

1.5 In the implementation of the relevant programme areas identified in Agenda 21, special attention should be given to the particular circumstances facing the economies in transition. It must also be recognized that these countries are facing unprecedented challenges in transforming their economies, in some cases in the midst of considerable social and political tension.

1.6 The programme areas that constitute Agenda 21 are described in terms of the basis for action, objectives, activities and means of implementation. Agenda 21 is a dynamic programme. It will be carried out by the various actors according to the different situations, capacities and priorities of countries and regions in full respect of all the principles contained in the Rio Declaration on Environment and Development. It could evolve over time in the light of changing needs and circumstances. This process marks the beginning of a new global partnership for sustainable development. (<http://www.ig.capc.org/habitat/agenda21/ch-01.html>; Agenda 21, 1993)

Unfortunately, the lofty goals of *Agenda 21* have been largely ignored. The impact of UNCED on global environmental protection is disappointing. Follow-up studies show that governments have largely failed to restore their damaged environments and reduce poverty. Instead, since 1992, most major indicators have continued to decline. Oil and gas use have reached new highs, carbon emissions and global temperatures continue to climb, forest loss continues (Brown, Renner, & Flavin, 1997, 1998), freshwater systems are degrading (Abramovitz, 1996), and we are still quickly losing biodiversity. The 1997 General Assembly Special Session to review implementation of Agenda 21 concluded that there is little evidence that Agenda 21 has become an effective program. Similarly, in 1997 the UN Environment Programme observed that

despite progress, the pace at which the world is moving toward a sustainable future is simply too slow. Internationally and nationally, the funds and political will dedicated

to halting further environmental degradation are insufficient. We know that the knowledge and technological base to solve the most pressing environmental issues are available. However, the sense of urgency of the early 1990s is lacking (United Nations Environmental Programme, 1997, p. vii).

The conclusion that we have “the knowledge and technological base to solve the most pressing environmental issues” demonstrates that our failure to restore environmental health is not primarily a technological one but ultimately a psychological one. We do not yet know how to change the human behavior we know is necessary to build a sustainable world. Likewise, most people (at least in developed countries) realize that global environmental problems loom large on the horizon, but continue to go about their daily lives in ways that threaten our future existence. Why we do not change our behavior, even when we know that it is imperative to do so, is a critical question for psychologists (Winter, 1996, 2000).

One answer is that we simply are insufficiently aware of the situation. After all, according to Costanza et al. (1997), “because ecosystem services are not fully ‘captured’ in commercial markets or adequately quantified in terms comparable with economic services and manufactured capital, they are often given too little weight in policy decisions” (p. 253). Costanza et al. calculated that for the entire biosphere, the value of these services is an average of US\$33 trillion per year, whereas global GNP is US\$18 trillion per year.

Another possible answer is that we are fundamentally selfish, and the sacrifices required to build a sustainable culture are simply too great for our hedonistic nature. Unfortunately, this explanation is supported by the behavior of nations negotiating international treaties. Even before leaders left Rio, they showed widespread self-interest, resisting any wording in agreements that might hinder their own countries’ economic concerns. For example, Malaysia and Indonesia lobbied against treaties involving sustainable forest practices; Saudi Arabia led a group of Middle Eastern countries that resisted agreements on reducing the use of fossil fuels; Latin American countries fought against wording involving population stabilization; and the United States, the only country strong enough to be a global leader on environmental protection, refused to join any agreements on reducing consumption and militarization. In a particularly telling statement, then-President George Bush proclaimed that the “U.S. way of life was not up for negotiation,” and that he was “President of the U.S., not president of the world, and I will do what I think is best for the U.S.” (as quoted by Shabecoff, 1996, p. 167).

On the other hand, UNCED was the most important gathering of Nongovernmental Organizations (NGOs) at any UN meeting to date, producing for the first time a parallel world convention of grass roots organizers, who have since shown much greater capacity to effect change than their government counterparts. Since Rio’s UNCED, NGOs have powerfully affected policy documents emerging from UN meetings, and have become the major players in implementing sustainable

development around the world. Their track record for finding ways to “fulfill basic human needs, improve living standards for all and better protect and manage ecosystems” (Agenda 21 Preamble, paragraph 1.1) is undeniably better than most governments. We believe their superiority over the UN and participating governments in accomplishing environmental protection is due to the NGOs’ much more direct links to the local villages in which they work, their much smaller bureaucratic (dis)organization, and their ability to design small-scale, locally driven projects that do not displace existing communities and infrastructure. Also, NGOs do not answer to corporate or power-elite interests that shape government action or inaction. Nevertheless, an integrated approach to change would be called for, one that combines support for NGOs as well as the pursuit of effective national and global policies.

THE PURPOSE AND GENESIS OF THE EARTH CHARTER

Because the NGOs are more effective in restoring habitats and implementing sustainable development, focus on them has been growing throughout the world community. Part of this effort includes the design and distribution of the Earth Charter, a parallel document to Agenda 21. Whereas Agenda 21 is a massive 800-page tome, formulated for governments, the Earth Charter is an elegant 5-page document meant to speak for and to private citizens, humanitarian and environmental groups, and other nongovernmental people, and to reach the consciousness of government leaders around the world.

The Earth Charter had its beginnings in the report of the World Commission on Environment and Development in 1987 (*Our Common Future*), which called for the development of an ethical document. At UNCED in 1992, governments did not agree on a draft for an ethical complement to Agenda 21 and, instead, an Earth Charter was issued at the parallel NGO forum. Two years after Rio, Maurice Strong and Mikhail Gorbachev launched a new initiative for an earth charter. The Earth Council was also created that year to follow-up the UNCED agreements.

In 1997, the Earth Council and Green Cross International formed an Earth Charter Commission, with representatives from the five world regions and a secretariat at Earth Council headquarters in Costa Rica. The first Benchmark Draft of the Earth Charter was issued in March of 1997 at the conclusion of the Rio +5 Forum, an international meeting to assess the impacts of Agenda 21 and the 1992 UNCED on global environmental protection. The document has gone through a series of drafts and international meetings, and in March 2000, the Earth Charter Commission, meeting at UNESCO Headquarters in Paris, issued the final text. The Millennium NGO Forum endorsed the Earth Charter in May, 2000. The document will be presented to the UN General Assembly in 2002 for endorsement.

Like Agenda 21, the Earth Charter is a soft law document. It is meant to address people’s sense of ethical responsibility until hard law treaties that bind govern-

ments are negotiated. As such, the Charter appeals to our global citizenship by spelling out the responsibilities of all human beings for nurturing our planetary home. The Charter integrates concepts from various NGO declarations; scientific worldviews; major religions; and social movements that promote human rights, democracy, gender equality, civil society, disarmament, and peace. In addition, the document brings together recommendations and goals set by seven UN summits held in the 1990s: Children (New York, 1990), Environment and Development (Rio, 1992), Human Rights (Vienna, 1993), Population and Development (Cairo, 1994), Social Development (Copenhagen, 1994), Women (Beijing, 1995), and Habitat (Istanbul, 1996). But most important for our present discussion, the Earth Charter uses psychological concepts to illuminate the roles of global citizens in facilitating sustainable development and peace.

The Earth Charter will be distributed around the world through four focal points:

1. National commissions, whose task is to carry out diverse activities to promote sustainable development at national levels. Some of these are intimately related to the National Councils for Sustainable Development, which are multi-stakeholder organizations.

2. The Charter is posted on a website: <http://www.earthcharter.org>

3. The Charter has been and will continue to be endorsed by diverse organizations, such as the Sierra Club, Green Cross International, The International Council for Local Environmental Initiatives, the Russian Association of the Indigenous Peoples of the North, and the 3rd Special Assembly of the Amazonian Parliament. On May 22–26, over 1,000 NGOs that participated in the Millennium NGO Forum at UN headquarters endorsed the Charter. (<http://www.millenniumforum.org>)

4. The Charter will be presented to various UN Conventions for endorsement, including the General Assembly in 2002. However, given that it is defined as a “people’s document,” adoption on the part of governments is not, of course, a condition for the Charter to continue to be promoted.

PSYCHOLOGICAL DIMENSIONS OF THE EARTH CHARTER

The Earth Charter is notable for its reliance on several psychological concepts: *responsibility*, *interdependence*, *shared identity*, and *values*. These principles are linked throughout the document, as illustrated in the first paragraph of the Preamble (italics added):

We stand at a critical moment in Earth’s history, a time when humanity must choose its future. As the world becomes increasingly *interdependent* and fragile, the future at

once holds great peril and great promise. To move forward we must recognize that in the midst of a magnificent diversity of cultures and life forms we are *one human family* and one Earth community with a common destiny. We must join together to bring forth a sustainable global society founded on respect for nature, universal human rights, economic justice, and a culture of peace. Towards this end, it is imperative that we, the peoples of the Earth, declare our *responsibility* to one another, to the greater community of life, and to future generations.” (Preamble)

In other words, the Earth Charter urges us to recognize our global citizenship, and our responsibility for caring for our fragile and interdependent ecosystem. We have responsibility to one another, future generations, and the biosphere. In the fourth paragraph, universal responsibility and shared identity are articulated more fully:

We must decide to live with a sense of *universal responsibility*, identifying ourselves with the whole earth community as well as our local communities. We are at once citizens of different nations and of one world in which the local and global are linked. Everyone shares responsibility for the present and future well-being of the human family and the larger living world. The spirit of human solidarity and kinship with all life is strengthened when we live with reverence for the mystery of being, gratitude for the gift of life, and humility regarding the human place in nature. (Paragraph 4)

The document calls on all people to define themselves as members of one human family (rather than as simply members of competing nation/states), residing in an interconnected and fragile environment that we are responsible for maintaining and nurturing.

Earth, our home, is alive with a unique community of life. ... The well-being of the community of life, the enjoyment of human rights, and the development of culture depend on preserving a healthy biosphere, in particular clean air, pure waters, fertile soils, and a rich variety of plants, animals and ecosystems. (Paragraph 2)

The paragraph goes on to proclaim that protecting the Earth’s “vitality, diversity, and beauty is a sacred trust” (Paragraph 2). In other words, we are citizens of one world, with universal responsibility to protect the planet’s resources, which is also a spiritual responsibility. The spiritual dimension of our shared identity is also articulated in the fourth paragraph: “We must realize that when basic needs have been met, human development is primarily about being more, not having more” (Paragraph 4).

The document goes on to list 16 principles for achieving a sustainable planetary home, in four arenas of human activity:

1. Respect and Care for the Community of Life: including affirming diversity, caring for the environment, building democratic societies, and securing the Earth's bounty for future generations.
2. Ecological Integrity: including protecting ecological systems, reducing harm to the environment, adopting sustainable consumption patterns, and advancing the study of sustainability.
3. Social and Economic Justice: including eradicating poverty; promoting equitable institutions; affirming gender equality; and ensuring human rights to dignity, bodily health, and spiritual well-being.
4. Democracy, Nonviolence, and Peace: including strengthening democratic institutions; promoting education for sustainability; treating all living beings with respect and consideration; and promoting cultures of tolerance, nonviolence, and peace.

The Charter then closes with five short paragraphs urging a change of mind and heart that recognizes global interdependence and universal responsibility, awareness of the tensions between important values, and support for the UN. It concludes with the invocation:

“Let ours be a time remembered for the awakening of a new reverence for life, the firm resolve to achieve sustainability, the quickening of the struggle for justice and peace, and the joyful celebration of life.”

PSYCHOLOGICAL VALUE OF THE EARTH CHARTER

The Earth Charter was designed to guide behavioral change toward sustainable development by calling on our responsibilities as global citizens. We do not assume that the Charter will increase people's sense of moral responsibility just by reading it. Rather, it is probably the reverse: the Charter will be meaningful to those already prepared to accept it, in which case it can function as an orientation for action. However, one of us (Abelardo Brenes) is using the Preamble to teach our common critical challenges, our sense of interdependence, and the need to live within an ethic of universal responsibility. The rationale is that once interdependence and responsibility are accepted, people will be more likely to adopt the 16 principles as a guide for action.

At least in some developed societies, environmental behaviors such as recycling are matters of morality (Thogersen, 1996). They are undertaken to reach some vague, uncertain future for the benefit of the total population, instead of for immediate benefits to the self (Vlek & Keren, 1992). Most people who recycle do not receive more benefits than costs: they do not retrieve money or gain status and they spend time and energy doing an activity that is often inconvenient. Thus their behavior cannot be explained by a subjective utility model. Instead, most people recycle because they believe it is the right thing to do.

RESEARCH ON ENVIRONMENTAL BEHAVIOR

Empirical work on the relation between environmental attitudes and behavior tends to support the assumption that people are more likely to act in environmentally responsible ways if they believe the assumptions of the Charter, especially if they feel personally responsible. With a few exceptions (Allen, Davis, & Soskin, 1993; Goldenhar & Connell, 1992–93), research has repeatedly shown that people who are concerned about the future of the planet are more likely to engage in pro-environmental behaviors (Buttel, 1987; Dunlap, 1991; Gigliotti, 1992; Scott & Willits, 1994; Tarrant & Cordell, 1997; Van Liere & Dunlap, 1981). Much of this work uses a scale developed by Dunlap and Van Liere (1978, and later revised, Dunlap, Van Liere, Mertig, & Jones, in press) to measure environmental values that we think are closely aligned to the Earth Charter. This 12-item New Ecological Paradigm (NEP) scale asks participants to indicate their agreement with statements such as the following.

1. The balance of nature is very delicate and easily upset.
2. Humans must live in harmony with nature to survive.
3. Humans are severely abusing the environment.
4. We are approaching the limit of the number of people the earth can support.

These claims are contrasted with what Dunlap and Van Liere (1978) called a Dominant Paradigm, which includes beliefs that

1. Humans have the right to modify the natural environment to suit their needs.
2. The so-called “ecological crisis” facing humankind has been greatly exaggerated.
3. The earth has plenty of natural resources if we just learn how to develop them.

Research with this scale shows that NEP attitudes have steadily increased in the United States through the 1980s (Dunlap, 1987), and are still very high in the United States (Howell & Laska, 1992; Noe & Snow, 1990; Roper Organization, 1990; Wall, 1995) as well as in Sweden (Widegren, 1998). NEP scores correlate with pro-environmental behaviors, such as recycling, purchasing environmentally benign products, lowering temperatures in one’s home, growing organic vegetables, and choosing environmentally friendly forms of transportation (Widegren, 1998).

More recent research has refined some of the meanings of the NEP scale and argued that it primarily measures awareness of consequences of general environmental conditions, including “generalized beliefs about the nature of

human-environment interactions—or ‘folk ecology’” (Stern, Dietz, & Guagnano, 1995, p. 723). Such awareness predicts pro-environmental behavior, but not as well as when generalized awareness is combined with personal responsibility. That is, if people feel guilty when they do not engage in environmentally appropriate behaviors, they are more likely to engage in them (Widegren, 1998).

The importance of personal responsibility in activating the impact of attitudes on behavior was originally suggested by Schwartz (1970, 1977) in his norm activation theory. In this model, social norms are thought to play a different role than personal norms. “What distinguishes personal norms from social norms is that the sanctions attached to personal norms are tied to the self-concept” (Schwartz, 1977, p. 231). Thus conformity with the personal norms brings pride and self-esteem; violation produces guilt and self-deprecation.

The importance of personal norms in affecting pro-environmental behavior has been demonstrated repeatedly (Stern & Dietz, 1994; Stern et al., 1995; Stern, Dietz, & Kalof, 1993; Vining & Ebreo, 1992). People who feel personally responsible are more likely to lower their energy use (Black, Stern, & Elworth, 1985), support environmental protection (Stern, Dietz, & Black, 1986), and recycle (Guagnano, Stern, & Dietz, 1995; Hopper & Nielsen, 1991; Lee, De Young, & Marans, 1995; Vining & Ebreo, 1992). More recently Harland, Staats, and Wilke (1999) demonstrated that activating personal norms enhances both environmentally relevant intentions and behaviors, at least in motivated participants. For example, people who hold themselves personally responsible are more likely to use unbleached paper, eat less meat, use transportation other than a car, use energy-saving light bulbs, and turn off the faucet while brushing their teeth (Harland, Staats, & Wilke, 1999).

When personal responsibility extends to the well-being of others, people are particularly likely to behave in line with their pro-environmental attitudes. One way of measuring altruistic motivation is the Schwartz attitude scale’s subscale of self-transcendence; that is, an orientation toward the welfare of others versus primarily to the well-being of the self (Schwartz, 1992). Self-transcendent values include beliefs in universalism, responsibility for protecting the environment, belief in a world of beauty, and being in unity with nature. These values are clearly illustrated by the Earth Charter. In a recent cross-cultural study, Schultz and Zelezny (1998) showed that the self-transcendence values are particularly good predictors of pro-environmental behavior in five countries (Mexico, Nicaragua, Peru, Spain, and the United States).

Although there is good evidence that people who feel personal responsibility and hold a world view consonant with the Earth Charter are most likely to report pro-environmental behaviors, the correlations are not strong, rarely reaching .50. These data mean that even in people who have a sense of personal morality and a worldview in line with the Charter, environmentally responsible behaviors are not inevitable. Myriad situational determinants mediate the link between atti-

tudes and behaviors, particularly the convenience and salience of making an environmentally responsible choice. Another important psychological factor in the link between pro-environmental attitudes and behavior is a sense of empowerment. People often feel helpless, especially with regard to environmental hazards (Fridgen, 1994). Pelletier, Dion, Tuson, and Green-Demers (1999) showed that lack of motivation to act responsibly stems from a sense of global helplessness: a feeling of being “daunted by the enormity and severity of the environmental situation” (p. 2485). An important unanswered question that peace psychologists should address is what factors lead some people to feel helpless and demoralized, while others become environmental activists on behalf of future generations.

In any case, environmental education should emphasize not only personal responsibility, but strategies for building confidence in people’s capacity to carry out appropriate behaviors (Pelletier et al., 1999). Those people who do manage to build environmentally responsible habits have been shown to cognitively transform their behaviors into ones that are pleasant and convenient (Werner & Makela, 1998). Why and how some people are able to make these transformations is an important question for peace psychologists.

CONCLUSION

We believe that the effectiveness of the Earth Charter in promoting universal environmentally responsible behavior will depend on many psychological conditions, including both cognitive and emotional factors. As Werner put it, an

effective, psychologically based intervention programme [should] include a myriad of elements, each one contributing in different ways to the programme’s success. There are five basic factors:

- social awareness and concern about the problem
- knowledge about and motivation to engage in behavioral solutions
- memory or situational prompts to make the motivation salient
- opportunities to follow through with the behavior(s)
- and skills/perceived competence to do the behavior(s) correctly (Werner, 1999, p. 224)

The Earth Charter is a useful tool for promoting both social awareness and concern. We will need extended efforts of countless people in all countries to transform this concern into environmentally sustainable behaviors, using the awareness and morality expressed in the Earth Charter as a basis for teaching skills, knowledge, and strategies for changing immediate situations.

Peace psychologists can help with this effort in myriad ways. As professionals committed to cultures of peace, we need to understand and promote environmentally responsible behavior in our local communities, national legislation, and global policies. We can contribute to these efforts by conducting empirical research, working with groups negotiating policy, and lobbying key decision makers on behalf of future generations. Sustainable cultures will require changed thoughts, beliefs, feelings, and behaviors of billions of people making daily choices, as well as the education of local, state, and national leaders whose decisions will affect the environmental health for generations to come. Psychologists are well-equipped to help design environments that will facilitate these changes. Studying and promoting environmentally responsible choices will enable us to look forward to a future of peace and well-being. As we stated at the beginning of this article, if we do not mobilize our fellow citizens for these goals, we will fail to bring about cultures of peace.

REFERENCES

- Abramovitz, J. N. (1996). Sustaining freshwater ecosystems. In L. R. Brown & C. Flavin (Eds.), *State of the world, 1996* (pp. 60–77). New York: Norton.
- Agenda 21: The earth summit strategy to save our planet.* (1993). Boulder, CO: Earthpress.
- Allen, J., Davis, D., & Soskin, M. (1993). Using coupon incentives in recycling aluminum: A market approach to energy conservation policy. *Journal of Consumer Affairs*, 27, 300–318.
- Black, J. S., Stern, P. C., & Elworth, J. T. (1985). Personal and contextual influences on household energy adaptations. *Journal of Applied Psychology*, 70, 3–21.
- Brown, L. R., Renner, M. R., & Flavin, C. (1997). *Vital signs 1997: The environmental trends that are shaping our future*. New York: Norton.
- Brown, L. R., Renner, M. R., & Flavin, C. (1998). *Vital signs 1998: The environmental trends that are shaping our future*. New York: Norton.
- Buckles, D. (Ed.). (1999). *Cultivating peace. Conflict and collaboration in natural resource management*. Ottawa, Canada: International Development Research Centre.
- Buttel, F. H. (1987). New directions in environmental sociology. *Annual Review of Sociology*, 13, 465–488.
- Costanza, R., D'Arge, R., De Groot, R., Farber, S., Grasso, M., Honnon, B., Limburg K., Naeem, S., O'Neill, R. V., Paruelo, J., Raskin, R. G., Sutton, P., & Vanden Belt, M. (1997). The value of the world's ecosystem services and natural capital. *Nature*, 387, 253–260.
- Dunlap, R. E. (1987, July/August). Polls, pollution, and politics revisited: Public opinion on the environment in the Reagan era. *Environment*, 29, 6–11, 32–37.
- Dunlap, R. E. (1991). Public opinion in the 1980s: Clear consensus, ambiguous comment. *Environment*, 33(8), 10–37.
- Dunlap, R. E., & Van Liere, K. D. (1978). The "new environmental paradigm": A proposed measuring instrument and preliminary results. *Journal of Environmental Education*, 9, 10–19.
- Dunlap, R. E., Van Liere, K. D., Mertig, A. G., & Jones, R. E. (in press). Measuring endorsement of the New Ecological Paradigm: A revised NEP scale. *Journal of Social Issues*, 56 (3), 425–442.
- Fridgen, C. (1994). Human disposition toward hazards: Testing the environmental appraisal inventory. *Journal of Environmental Psychology*, 14, 101–111.
- Gigliotti, L. M. (1992). Environmental attitudes. *Journal of Environmental Education*, 24(1), 15–26.

- Goldenhar, L. M., & Connell, C. M. (1992–1993). Understanding and predicting recycling behavior: An application of the theory of reasoned action. *Journal of Environmental Systems*, 22, 91–103.
- Guagano, G. A., Stern, P. A., & Dietz, T. (1995). Influences on attitude–behavior relationships: A natural experiment with curbside recycling. *Environment and Behavior*, 27, 699–718.
- Harland, P., Staats, H., & Wilke, A. M. (1999). Explaining proenvironmental intention and behavior by personal norms and the theory of planned behavior. *Journal of Applied Social Psychology*, 29, 2505–2528.
- Hopper, J. R., & Nielsen, J. M. (1991). Recycling as altruistic behavior: Normative and behavioral strategies to expand participation in a community recycling program. *Environment and Behavior*, 23, 195–220.
- Howell, S. E., & Laska, S. B. (1992). The changing face of the environmental coalition: A research note. *Environment and Behavior*, 24, 134–144.
- Kaplan, R. D. (1994, February). The coming anarchy. *The Atlantic Monthly*, 273(2), 44–76.
- Lee, Y.-J., De Young, R. D., & Marans, R. W. (1995). Factors influencing individual recycling behavior in office settings: A study of office workers in Taiwan. *Environment and Behavior*, 27, 380–403.
- Merimbe, A. (2000, July). Comments made at the Dag Hammarskjöld Memorial Seminar on Diplomacy and Psychology: Contributions of Psychological Science to International Negotiations, Conflict Prevention, and World Peace. Twenty Seventh International Congress of Psychology, Stockholm, Sweden.
- Noe, F. P., & Snow, R. (1990). The new environmental paradigm and further scale analysis. *Journal of Environmental Education*, 21(4), 20–26.
- Oskamp, S. (2000). A sustainable future for humanity? How can psychology help? *American Psychologist*, 55, 516–522.
- Pawlik, K. (1991). The psychology of global environmental change: Some basic data and an agenda for cooperative international research. *International Journal of Psychology*, 26, 547–563.
- Pelletier, L. G., Dion, S., Tuson, K., & Green-Demers, I. (1999). Why do people fail to adopt environmental protective behaviors? Toward a taxonomy of environmental amotivation. *Journal of Applied Social Psychology*, 29, 2481–2504.
- Roper Organization. (1990). *The environment: Public attitudes and individual behavior*. New York: Author.
- Schultz, W. P., & Zelezny, L. C. (1998). Values and proenvironmental behavior: A five-country survey. *Journal of Cross-Cultural Psychology*, 29, 540–558.
- Schwartz, S. H. (1970). Moral decision making and behavior. In J. Macauley & L. Berkowitz (Eds.), *Altruism and helping behavior* (pp. 127–141). New York: Academic Press.
- Schwartz, S. H. (1977). Normative influence on altruism. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 10, pp. 221–279). New York: Academic Press.
- Schwartz, S. H. (1992). Universals in the context and structures of values: Theoretical advances and empirical tests in 20 countries. In M. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 25, pp. 1–66). San Diego, CA: Academic Press.
- Scott, D., & Willits, F. K. (1994). Environmental attitudes and behavior: A Pennsylvania survey. *Environment and Behavior*, 26, 239–260.
- Shabecoff, P. (1996). *A new name for peace: International environmentalism, sustainable development, and democracy*. Hanover, NH: New England Press.
- Stern, P. C. (1992). Psychological dimensions of global environment change. *Annual Review of Psychology*, 43, 269–302.
- Stern, P. C., & Dietz, T. (1994). The value basis of environmental concern. *Journal of Social Issues*, 50(3), 65–84.
- Stern, P. C., Dietz, T., & Black, J. S. (1986). Support for environmental protection: The role of moral norms. *Population and Environment*, 8, 204–222.

- Stern, P. C., Dietz, T., & Guagnano, G. A. (1995). The new ecological paradigm in social-psychological context. *Environment and Behavior*, 27, 723-743.
- Stern, P. C., Dietz, T., & Kalof, L. (1993). Value orientations, gender, and environmental concern. *Environment and Behavior*, 25, 322-348.
- Stern, P. C., & Oskamp, S. (1987). Managing scarce environmental resources. In D. Stokols & I. Altman (Eds.), *Handbook of environmental psychology* (Vol. 2, pp. 1043-1088). New York: Wiley.
- Tarrant, M. A., & Cordell, K. H. (1997). The effect of respondent characteristics on general environmental attitude-behavior correspondence. *Environment and Behavior*, 29, 618-637.
- Thøgersen, J. (1996). Recycling and morality: A critical review of the literature. *Environment and Behavior*, 29, 618-637.
- Union of Concerned Scientists. (1993). *World scientist's warning to humanity*. Cambridge, MA: Author.
- United Nations Environmental Programme. (1997). *Global environment outlook*. New York: Oxford University Press.
- Van Liere, K. D., & Dunlap, R. E. (1981). Environmental concern: Does it make a difference how it's measured? *Environment and Behavior*, 13, 651-676.
- Vining, J., & Ebreo, A. (1992). Predicting recycling behavior from global and specific environmental attitudes and changes in recycling opportunities. *Journal of Applied Social Psychology*, 22, 1580-1607.
- Vlek, C., & Keren, G. (1992). Behavioral decision theory and environmental risk management: Assessment and resolution of four "survival" dilemmas. *Acta Psychologica*, 80, 249-278.
- Wall, G. (1995). General versus specific environmental concern: A Western Canadian case. *Environment and Behavior*, 27, 294-316.
- Werner, C. M. (1999). Psychological perspectives on sustainability. In E. Becker & T. John (Eds.), *Sustainability and the social sciences* (pp. 223-242). London: Zed.
- Werner, C. M., & Makela, E. (1998). Motivations and behaviors that support recycling. *Journal of Environmental Psychology*, 18, 373-386.
- Wessells, M. G. (1996, August). Genocide in Rwanda: Origins and psychological tasks of reconstruction. In M. Wessells (Chair), *Intrastate conflict: Origins, aftermath, and challenges of reconstruction*. Symposium conducted at the annual convention of the American Psychological Association, Toronto, Ontario.
- Widgren, O. (1998). The new environmental paradigm and personal norms. *Environment and Behavior*, 30, 75-100.
- Winter, D. D. (1996). *Ecological psychology: Healing the split between planet and self*. New York: Harper Collins.
- Winter, D. D. (1997, August). *Habitat is a human need, too*. Paper presented at the American Psychological Association Meetings, Chicago.
- Winter, D. D. (2000). Some big ideas for some big problems. *American Psychologist*, 55, 516-522.
- World Commission on Environment and Development. (1987). *Our common future*. Oxford/New York: Oxford University Press.

*"We now have a Rainbow Nation but you can't eat Rainbows!"
In order for the people of Africa to be able to enjoy all that their
rainbow nations have to offer, peace psychologists will need
to become involved in promoting a social justice morality at
local and international levels. For the peace of the poor nations
of the world is intricately and structurally bound to the wealth
of the rich.*

*Andy Dawes,
p. 295, Peace, Conflict, and Violence:
Peace Psychology for the 21st Century*

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