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TOWARDS ECOLOGICAL SELF: DEEP ECOLOGY MEETS CONSTRUCTIONIST SELF-THEORY

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Abstract

The concept of 'ecological self', as expounded and applied by members of a social movement called 'deep ecology', is carefully examined and compared with self-concepts constructed by academic psychologists. Constructionist theories and research are explored as an area of particular relevance because they (a) exemplify a more ecological, or systems, view of the person, (b) offer an understanding of how an expanded self-concept might affect the functioning of an individual and his or her surrounding environment, and (c) suggest how self-constructs might be changed. Self-construct change is discussed with reference to an empirical evaluation of 'deep ecology' experiential workshops called The Council of All Beings. This paper has a dual aim. First, the 'indigenous psychology' implicit in deep ecology may provide fertile ground for the development of more academic theories. Second, due to the collaborative nature of this research, deep ecologists may benefit from the kind of conceptualization and analysis provided by academic psychology. Both effects could further a central and shared aim of both environmental psychologists and deep ecologists: to encourage environmentally responsible attitudes and behaviour.

It is late in the afternoon in the Australian bush and golden light is showering through the boughs of tall eucalyptus upon a group of workshop participants. They sit intently writing answers to the question 'Who Am I?' A woman writes:

I am soil
I am water
I am air
I am sun
I am mountain, river, sea
I am cloud, rain
I am living on planet earth
I am spirit
I am alive
I am flesh and blood
I am forest.

Deep ecologists would say she is experiencing her 'ecological self'.

The term 'ecological self' was first coined by Arne Naess (1985) and used within the field of environmental philosophy called 'deep ecology' (see reviews by Nash, 1989; Fox, 1990; Zimmerman *et al.*, 1993). This concept is emerging as a central theme within the burgeoning literature espousing an ecological worldview (e.g. Russell, 1988; Seed *et al.*, 1988; Macy, 1989, 1991; Mathews, 1991) and within the development of an 'ecopsychology' (e.g. Shepard, 1982; Conn, 1991; Hillman & Ventura, 1992; Keepin, 1992; Roszak, 1992; Cohen, 1993). It is argued by these authors that experiences of ecological self are a crucial step towards changing our individual and collective relationships with the natural world and behaving in an environmentally responsible way (Reser, in press). Many *environmental psychologists* are specifically interested in addressing the environmental crisis through changing people's behaviour (e.g. Brookfield & Doebe, 1990; Pawlik, 1991; Geller, 1992; Stern *et al.*, 1992; Dwyer *et al.*, 1993; Rapoport, 1993; Scott & Willits, 1994). In this way, the intentions or value orientations of many academic psychologists parallel those of deep ecologists. Despite the concern of some academics that deep ecology and ecopsychology are situated 'on the fringe' of credible academic thought (Seager, 1993; Reser, in press), I suggest that the

concept of 'ecological self' is worthy of serious academic consideration as a possible intervening variable in the production of environmentally responsible behaviour. As Roth (1991) has pointed out with regard to the perceived role of radical environmental social movements in mainstream politics, 'initially they were regarded by the dominant urban politics as a pure nuisance, as part of the problem; more recently they are assessed for what they might contribute to devising a solution' (p. 81).

Social science research has a long history of drawing on concepts from social movements (Lewin, 1984; Stewart & Healy, 1989), and the whole process of the social construction of science involves the interplay of 'lay' and 'academic' understandings of reality (Gilbert & Mulkay, 1984; Farr, 1993). Academic psychology is based upon and embedded in the 'indigenous psychology' of its surrounding society and culture (Heelas & Lock, 1981; Gergen, 1985; Sampson, 1988; Burr, 1995). As the surrounding society changes, it is appropriate that psychological theories, including theories of the 'self', evolve with it (Sampson, 1989, 1993; Staub & Green, 1992). In recent years, several environmental psychologists and sociologists have been influenced by concepts emerging from environmental philosophy, particularly the differentiation between the 'intrinsic' and 'instrumental' values of nature and between 'ecocentrism' and 'anthropocentrism' (e.g. Daniel, 1988; Stern *et al*., 1992; Rapoport, 1993; Thompson & Barton, 1994; see Zimmerman *et al*., 1993, for a review of the philosophical constructs). The most widely used measure of 'environmental attitudes' (Arcury, 1990; Stern, 1992), the New Environmental Paradigm scale (Dunlap & Van Liere, 1978), was based on a theory of 'environmental worldview' formulated by Catton and Dunlap (1980), who drew directly from environmental philosophy in their attempt to develop a less anthropocentric, a 'new' or 'genuine' environmental sociology (Buttel, 1987, p. 468). The resulting attitudinal research has focused on 'worldview' (i.e. people's understanding of the world 'out there') as an important intervening variable in the production of environmentally responsible behaviour.

A few empirical studies have examined the hypothesis that aspects of *self-concept* or *identity* are instrumental in producing environmentally responsible behaviour, with conflicting results. Krause (1993), for example, found that 57·2 percent of participants in his Chicago study classified themselves as 'environmentalists' but that this was not associated with environmental knowledge or willingness to alter behaviour to deal with environmental problems. Sparks and Shepherd (1992), on the other hand, found that participants' identity as a 'green consumer' and as 'someone who is very concerned with green issues' was a significant predictor of specific behavioural intentions (i.e. the intention to consume organic vegetables during the following week), independent of environmental attitudes, subjective norms and perceived control. Given the paucity of research and conflicting findings in this area, the concept of 'ecological self' may provide fertile ground for empirical investigation and theory development.

The present paper carefully examines the philosophy of deep ecology, focusing on the concept of 'ecological self', and extracts several psychological themes that run through it. It is hoped that useful ideas may be discovered for investigation by academic environmental psychology. Academic psychology is then searched for theories that may shed conceptual light on the deep ecological concept of ecological self. Finally, an action research project is outlined that (a) tests some of the theoretical assumptions of deep ecology, and (b) assists the development of experiential techniques used by deep ecologists to encourage environmentally responsible behaviour and social change.

Deep Ecology and 'Ecological Self'

As a formal environmental philosophy, deep ecology delineates specific codes of ethics or normative values and is strongly represented within academic forums of discussion (e.g. Rothenberg, 1987; Goldsmith, 1988; Nash, 1990; Bennett, 1991; Zimmerman *et al*., 1993). Deep ecology can also be considered as a 'social movement' (Buechler, 1993; Seager, 1993), being involved in social change activities: political and environmental activism, education, and the development of life-styles, experiences and spiritual practices that connect people more deeply with the environment (Devall, 1988; Seed *et al*., 1988; Amidon & Roberts, 1992). In this sense, its implicit theories can be considered as an 'ideology' (Fien, 1993), a system of understanding that 'provides interpretations and solutions to what is felt to be an unsatisfactory social condition' (Vander Zanden, 1987, p. 540), or 'knowledge in the service of power' (Burr, 1995, p. 82).

Naess (1973) introduced the term 'deep ecology' to distinguish both the social and philosophical approaches from 'shallow' ecology or 'reform environmentalism', which, he claims, deals only with surface level manifestations, or symptoms, of a

deeper ecological crisis. For example, a 'shallow' environmentalism might look at specific environmental problems and explore technological solutions. In contrast, a deep ecological perspective would also examine, question and try to change the underlying value systems and worldviews that are the ultimate causes of the external environmental crisis. Another feature of deep ecology is that it is not anthropocentric (Seed, 1985) but biocentric or ecocentric. The philosophical basis for protecting nature is a belief in the intrinsic value of all life (the worth of nature being independent of a human observer or user) rather than its instrumental value for humans.

Warwick Fox (1990) argues that deep ecology can be distinguished from almost all other ecological philosophies by its fundamentally psychological approach. Deep ecology is not concerned with developing an axiology, a theory of value of the nonhuman world. Its discussion of intrinsic values is primarily *phenomenological* rather than moral or prescriptive:

> I'm not much interested in ethics or morals. I'm interested in how we experience the world . . . Ethics follows from how we experience the world. If you experience the world so and so then you don't kill. If you articulate your experience then it can be a philosophy or religion. (Naess, in Fox, 1990, p. 218)

Most importantly, in this context, Fox explains that the philosophy of deep ecology involves a completely different notion of *self* from other ecophilosophies. Most philosophies that argue for the instrumental or intrinsic value of nature are based on an individualistic concept of self, in which this self is assumed to be the centre of volition. Deep ecology, on the other hand, embraces an expansive or transpersonal sense of self, 'a sense of self that extends beyond one's egoic, biographic, or personal sense of self' (Maslow, 1968, p. iv). This is referred to as the 'ecological self'.

Descriptions of ecological self

The closest that Naess comes to defining 'ecological self' is to say that 'the ecological self of a person is that with which he identifies' (1988, p. 22). He defines 'identification' as 'a spontaneous, nonrational . . . process through which the interest or interests of another being are reacted to as our own interest or interests' (1985, p. 261). By examining quotations from deep ecological literature, we can see that these 'reactions' include emotions, perceptions/cognitions, spiritual experiences and physical behaviours. These are summarized in Table 1.

Naess' illustration of the process of identification, and hence ecological self, expresses some of the emotional and cognitive/perceptual experiences involved.

> My standard example has to do with a nonhuman being I met forty years ago. I looked through an old-fashioned microscope at the dramatic meeting of two drops of different chemicals. A flea jumped from a lemming strolling along the table and landed in the middle of the acid chemicals. To save it was impossible. It took many minutes for the flea to die. Its movements were dreadfully expressive. What I felt was, naturally, a painful compassion and empathy. But the empathy was *not* basic. What *was* basic was the process of identification, that 'I see myself in the flea'. If I was alienated from the flea, not seeing anything resembling myself, the death struggle would have left me indifferent. (1988, p. 22).

In this passage, Naess clearly expresses an experience of *emotional* resonance or 'feeling with' the dying flea (otherwise known as compassion, empathy or sympathy). He suggests that this empathy is a function of the more cognitive/perceptual process of identification. Joanna Macy (1991) also effectively illustrates this connection between compassion, or 'feeling with the world', and expansion of the sense of self.

> Once we stop denying the crises of our time and let ourselves experience the depth of our own responses to the pain of our world — whether it is the burning of the Amazon rainforest, the famines of Africa, or the homeless in our own cities — the grief or anger or fear we experience cannot be reduced to concerns for our own individual skin. (p. 186)

TABLE 1
Key aspects of the concept of 'ecological self' (from deep ecology literature)

(1)	Ecological self is a wide, expansive or field-like sense of self, which ultimately includes all life-forms, ecosystems and the Earth itself.
(2)	Experiences of ecological self involve: (a) an emotional resonance with other life-forms; (b) a perception of being similar, related to, or identical with other life-forms; (c) spontaneously behaving towards the ecosphere as one would towards one's small self (with nurture and defence).
(3)	It is possible to expand one's sense of self from the personal to the ecological.

Unlike Naess, Macy suggests that spontaneous emotional responses actively create an expanded concept of self. Emotionally, the boundaries between self and other are dissolved.

The second key aspect of experiences of ecological self described in Naess's flea example is 'that one "sees" or experiences something similar or identical with oneself' (1985, p. 262). 'I see myself in the flea' (1988, p. 22). This is a more *conceptual*, cognitive or perceptual aspect of identification. In the words of another deep ecologist:

> I try to remember that it's not me, John Seed, trying to protect the rainforest. Rather, I am part of the rainforest protecting itself. I am that part of the rainforest recently emerged into human thinking. (Seed, in Macy, 1991, p. 184)

In a conceptual sense, the boundaries between self and other are dissolved. These authors are describing an experience of ecological identity.

This cognitive or perceptual identification may be experienced so deeply that it touches on other sensory modalities, beyond 'sight' or perception.

> Deep ecology ... requires openness to the black bear, becoming truly intimate with the black bear, so that honey dribbles down your fur as you catch the bus to work. (Aitken, 1980, p. 57)

Individuals may phenomenologically 'become' another being, experiencing reality through the senses of that other being. Interestingly, a psychological definition of empathy includes 'taking the role of the other, viewing the world as he or she sees it, and experiencing his or her feelings' (Goldstein & Michaels, 1985, p. 7). The most lucid experiences of this reputedly occur in altered states of consciousness attained through meditation, rituals, shamanic journeys and other experential techniques (Devall, 1988; Seed *et al*., 1988; Harner, 1990).

Fox emphasizes the more mystical or spiritual aspects of this conceptual understanding of connection with the rest of the natural world. These experiences of ecological self are characterized by a more global, cosmic or universal type of connection, an identification with 'all that is'.

> We have perhaps all experienced this state of being, this sense of commonality with all that is simply by virtue of the fact *that* it is, at certain moments. Things *are*! There is something rather than nothing! Amazing! (1990, p. 251)

Fox also describes a cosmologically based identification, in which the sense of connectedness derives from a profound understanding of 'the fact that we and all other entities are aspects of a single unfolding reality' (1990, p. 252). These spiritual experiences of ecological self might be akin to 'peak experiences' in natural environments, as described by humanistic and transpersonal psychologists (e.g. Maslow, 1971; Scott, 1974; Reser & Scherl, 1988; Csikszentmihalyi, 1990).

The third aspect of experiences of ecological self referred to in the deep ecology literature is 'spontaneous' ecological *behaviour* — physical reactions of defending or nurturing other beings as if they were one's self. Naess (1988) explains this process by referring to a more commonly experienced type of identification: social identification. He argues that by further broadening our identification, we would behave in a more ecologically responsible manner.

> Early in life, the social *self* is sufficiently developed so that we do not prefer to eat a big cake alone. We share the cake with our family and friends. We identify with these people sufficiently to see our joy in their joy, and to see our disappointment in theirs. Now is the time to share with all life on our maltreated earth by deepening our identification with all life-forms, with the ecosystems, and with Gaia, this fabulous, old planet of ours. (p. 28).

The basic thesis is that if individuals extended their identification outward, finally encompassing all life-forms, ecosystems and the Earth itself, there would be no need for environmental ethics, 'altruism' or 'self-sacrifice'. This is because the separation between self and other, 'ego' and 'alter', is blurred or dissolved. 'Self-interest' would motivate people to act on behalf of the larger, ecological self, rather than the biographical, personal self. Individuals would 'naturally' take care of and defend the Earth, without feeling any moral pressure to do it, just as we 'naturally' take care of our individual, small selves.

> If your 'self' in the wide sense embraces another being, you need no moral exhortation to show care ... You care for yourself without feeling any moral pressure to do it — provided you have not succumbed to a neurosis of some kind, developing self-destructive tendencies, or hating yourself. (Naess, 1988, pp. 26–27)

This aspect of the deep ecological theory of 'ecological self' is probably the most psychologically 'naive' because of the prevalence of self-abuse and neglect in our society (Eckersley, 1988; Jessor *et al*., 1991), which has generated a whole area of psychological research into understanding and encouraging 'self-protective behaviour' (Weinstein, 1987). Deep ecology's argument for 'merging with' the natural environment has also been criticized by another field of environmental philosophy, 'ecofeminism', which argues that a caring and 'kinship' relationship with a distinct 'other' is necessary to

motivate environmentally responsible behaviour (Kheel, 1992; Mathews, 1992; Plumwood, 1993). While ecofeminists draw on the psychological theories of 'an ethic of caring' (Gilligan, 1982), theories of 'empathy' and 'altruism' support both philosophical positions (Goldstein & Michaels, 1985; Vander Zanden, 1987; Sampson, 1991).

Development of ecological self

Deep ecologists believe that it is possible for individuals to move from a small, personal sense of self to a broader, ecological sense of self. Some writers refer to the shifting boundaries of the self construct. For example, Naess (1985, p. 260) quotes from William James' typology of self in *The Principles of Psychology*. 'We see then that we are dealing with a fluctuating material. The same object being sometimes treated as a part of me, at other times as simply mine, and then again as if I had nothing to do with it all'. Macy implies that our self-construct is a matter of conscious choice: 'The self is a metaphor. We can decide to limit it to our skin, our person, our family, our organisation, or our species. We can select its boundaries in objective reality' (1991, p. 189). Fox (1990), while describing his personal experiences of different senses of self, implies that he can willingly move between them.

> Our sense of self can be far more expansive than that of being a centre of volitional activity. For example, I can experience my volitional self as part of a larger sense of self that includes aspects of my own mind and body over which I do not experience myself as having particularly much control. In turn, I can also experience this larger, but still entirely personal, sense of self as part of a still more expansive, transpersonal sense of self that includes my family and friends, other animals, physical objects, the region in which I live, and so on. When this happens, I experience physical or symbolic violations of the integrity of these entities as violations of my self, and am moved to defend these entities accordingly. (p. 217).

Deep ecologists have suggested a variety of specific techniques for enhancing ecological self. Fox (1990) recommends the practise of experientially based spiritual disciplines (such as Zen Buddhism), the empathic incorporation of mythological, religious or speculative philosophical cosmologies (such as Taoism and certain indigenous worldviews) and incorporation of the modern cosmology of science (by becoming interested and involved with science and natural history). Devall (1988) emphazises wilderness experiences, rituals and seasonal festivals, becoming familiar with one's own bioregion, environmental activism and a life-style based on voluntary simplicity. Naess calls for 'community therapies which heal our relations with the widest community, that of all living beings' (1988, p. 29). Seed and Macy have created an experiential workshop called The Council of All Beings (Seed *et al.*, 1988), involving a series of role-play and 'despair and empowerment' processes designed to expand participants' identification. Ecopsychologists suggest new developments in psychotherapy — such as shamanic counselling (Lewis, 1991), gestalt therapy of the client–Earth relationship (Cahalan, 1992), counselling with nature (Cohen, 1993) and the connection of personal struggles to problems in the larger world (Conn, 1991) — to explore experiences of ecological self in individual therapy sessions.

Psychology and 'self'

The 'self' has been a central construct within the field of Western psychology, a focus of much research and theorizing, and the subject of many different methodologies and conclusions (see reviews in Gordon & Gergen, 1968; Yardley & Honess, 1987; Sampson, 1991). Discussions of 'self' include personality theories (e.g. Maslow, 1968); self as 'schema' (e.g. Fiske & Taylor, 1991); philosophical arguments concerning what the self is, or is not (subject/object, process/entity, multiple/singular — e.g. James, 1952; Rowan, 1989; Robinson, 1991); the development of typologies of the self (e.g. Gordon, 1968; Neisser, 1988); and research concerning the individual in society (e.g. Breakwell, 1986; McGuire *et al.*, 1986). Despite their differences, all approaches agree that an individual's construal or concept of 'self' can have fundamental effects on the experience and functioning of the individual — on their cognitions, emotions, motivation and behaviour (Charng *et al.*, 1988; Markus & Kitayama, 1991; Sparks & Shepherd, 1992). In order to examine further the concept of 'ecological self', with the intention of developing more academic theories, these psychological constructs of 'self' should be searched for any parallels. The most commonly discussed, and implicitly assumed, notion of self in Western psychology is the disembodied, self-contained, self-concerned, unique individual — the 'I', the 'me' (Heelas & Lock, 1981; Gergen, 1985; Sampson, 1988, 1989, 1991; Shotter & Gergen, 1989; Guisinger & Blatt, 1994; Burr, 1995). Despite this, current psychological literature contains a few areas of direct relevance to 'ecological self'.

Transpersonal self

Transpersonal psychology is specifically concerned with experiences of self beyond the personal, which encompass the universal and the spiritual (see review by Fox, 1990, pp. 289–299). In this way, transpersonal theories of the self are, like 'ecological self', wide, expansive and field-like. As Fox points out, however, most transpersonal psychologists focus on exclusively human and 'other-worldly' realms. There is often no mention of the self extending into other aspects of the physical, biological, ecological world. Some theorists are overtly anthropocentric, suggesting, for example, that human beings are the most spiritually advanced level of evolution, in contrast to the nonhuman world, which is referred to as 'the very lowest levels of being' (Wilber, in Fox, 1990, p. 200). Other transpersonal theorists, including two of the founders of transpersonal psychology, Abraham Maslow and Stanislav Grof, make it clear that the biological realm is definitely within reach of the human experience of self. For example, in describing peak or spiritual experience, Maslow states:

> the 'highest' experience ever described, the joyful fusion with the ultimate that man can conceive, can be seen simultaneously as the deepest experience of our ultimate personal animality and specieshood, as the acceptance of our profound biological nature as isomorphic with nature in general. (1971, p. 322).

Grof's experiential technique called 'holotropic breathwork' has yielded powerful experiences of ecological self (Grof, 1988), and several authors argue that transpersonal psychology offers many such practical methods for the development of ecological consciousness and behaviour (Vaughan, 1985; Brown, 1989; Keepin, 1992).

Biological or embodied self

In most academic psychological theories of self and identity, there exists an aspect of self similar to that of 'ecological self'. This is the 'embodied' or 'biological self', which according to certain theorists (e.g. Breakwell, 1986) forms a central core to identity. Despite being mentioned in many theories of self (James, 1952; Gordon, 1968; Hermans *et al*., 1992), it is rarely elaborated upon. Recent work on the social construction of 'the body', however, is beginning to redress this lack of interest (e.g. Jodelet, 1984; Filmer, 1995). Breakwell (1986) suggests that the relative importance of the biological organism for identity declines throughout an individual's life as other sources of identity increase, and rather than emphasizing the sensory, experiential aspects of the 'biological self', she emphasizes the *social* significance of physical form. Neisser (1988), on the other hand, refers to the physical aspect of self as 'ecological self' — 'the self as perceived with respect to the physical environment: "I" am the person here in this place, engaged in this particular activity' (p. 36). He emphasizes the experience of the physical self, embedded in space and time, as a central aspect of our *awareness* of self, as opposed to an object of thought. Deep ecologists would argue that this kind of awareness of our 'self' as a flesh and blood, physical creature alive and embedded in the natural environment, could remind us of our earthly nature, our similarity to other animals and our fundamental interconnectedness with the environment. Most psychological theorists, however, are referring to an individual, skin-encapsulated body, and usually to physical attributes and activities that distinguish it from others. An exception is James' (1952) discussion of the 'material self', of which 'the body is the innermost part' (p. 188) and includes our clothes, family, home, possessions and creations. The self encompasses aspects of the physical and social environment, but again there is no mention of nature or ecology. Neisser (1988) elaborates on this concept and explains that 'anything that *moves with* the body tends to be perceived as a part of the self. . . . What matters is not possession or contact but agency and coordinated movement' (p. 39).

Constructionist theories of self

An area of psychology in which the 'individualist' notion of self is rapidly changing is the collection of approaches to self theory and research that are known as 'constructionist' (Gergen, 1985; Shotter & Gergen, 1989; Sampson, 1991; Hermans *et al*., 1992; Burr, 1995). This movement has considerable relevance to the concept of ecological self for at least three reasons. First, it exemplifies a more 'ecological', or systems, view of the person. Second, it offers some understanding of how an expanded construal of self might affect the functioning of the individual and thus the surrounding environment. Third, some constructionist self theories provide suggestions about how construals of the self might be changed (in this case, widened and deepened to include others). I shall discuss each of these in more detail.

A systems view of the person

Constructionist theories of self are concerned with 'the processes by which people come to describe,

explain, or otherwise account for the world (including themselves) in which they live' (Gergen, 1985, p. 266). In other words, they are concerned with the social and personal *construction* of self and identity. The 'self' is not treated as a psychological entity that exists empirically (as often implied by Western psychological theories of self) but as a construct co-created by culture, society and individuals at a particular time and place. As Gergen (1985, p. 271) explains, 'the self-concept is removed from the head and placed within the sphere of social discourse'. The 'self' is constituted in and through connections and relationships with others. Examples of this approach include feminist research and theory (e.g. Gilligan, 1982; Lykes, 1985), explorations of self as narrative (e.g. Sarbin, 1986; Gergen & Gergen, 1988; Hermans *et al*., 1992) and cross-cultural work on concepts of the person (e.g. Heelas & Lock, 1981; Markus & Kitayama, 1991; Kitayama & Markus, 1994).

Although none of the work cited specifically includes the physical environment in its theorizing, it is 'ecological' in the sense that it involves a wide, expansive, field-like construal of self (see Table 1 above). It embodies a *systems* view of the individual in social and cultural context, with energy and information flowing across fluid boundaries (Bateson, 1972; Mathews, 1991). The individual is embedded in a social context, and construals of the self create, and are created by, social processes. While some social constructionists refer to this relationship between self and society as an 'ecosystem' (Burr, 1995), deep ecologists might see this as an 'anthropocentric' version of ecological self (Seed, 1985) and 'new environmental sociologists' as another example of the operation of the 'human exemptionalist paradigm' (Catton & Dunlap, 1980; Buttel, 1987).

Both Sampson (1989) and Gergen (1991) hint at the importance of the physical environment for an understanding of 'self' when they describe the post-modern era in terms of the global environment. Sampson, for example, states that communications technology has meant an enormous expansion of individuals' knowledge and informational boundaries; policies and behaviours of states and powerful persons far removed from individuals' local environment have dramatic effects on their quality of life; pollution and the threat of nuclear annihilation 'casts a shadow that extends around the world' (1991, p. 917). This sounds similar to the deep ecological arguments for developing an understanding and experience of ecological self (e.g. Macy, 1991). Social constructionists, however, only suggest expanding the construct of 'self' to include the *social* aspects of the global environment and do not advocate the incorporation of the physical environment into their theories.

Other recent theories of the self specifically include the physical environment in their formulation, and while they are not usually seen as a part of the 'social constructionist movement', these theories are certainly psychosocial in orientation (Bonnes & Secchiaroli, 1995). Stefan Hormuth's book *The Ecology of the Self* (1990), for example, describes the self as part of an ecological system that is a conjunction of other people, environments and objects. The 'self' both shapes this ecological system and is a reflection of it. Within this theory, objects and environments serve several functions for the self. They may provide a place or tool for a person's actions or experiences, including self-concept-relevant behaviour (such as the sea for a sailor). They can also be symbols of one's identity, and the arrangement or creation of environments can be a reflection of the self-concept. As long as the ecology of the self is stable, the self-concept will be stable. Self-concept change, on the other hand, results from a disturbance of the ecological system, for example by a relocation in physical environment.

The concept of 'place-identity' was first introduced by Proshansky (1978; Korpela, 1989) to describe the specifically environmental aspects of such a system. 'Place identity represents physical setting cognitions that serve to define, maintain, and protect the self-identity of a person' and encompasses strong emotional attachments to particular places (Proshansky *et al*., 1983, p. 73). This construct is closely related to the notions of 'place-belongingness' and 'sense-of-place', which are more usually discussed in the field of human geography (Tuan, 1980; Seamon & Mugerauer, 1985; Massey, 1994), and 'place attachment' (Altman & Low, 1992).

These forms of integrating the theory of the person and the physical environment are supported by earlier research and theory (Searles, 1960; Cooper, 1974; Csikszentmihalyi & Rochberg-Halton, 1981) and have been applauded by both self theorists and environmental psychologists (e.g. Sarbin, 1983; Little, 1987; Bonnes & Secchiaroli, 1995). Krupat (1983), for example, believes that the place-identity concept shows the potential to play an important role in environmental psychology.

> The concept of place identity makes explicit the key role that a person's relationship to the environment plays not simply in terms of a context for action or in facilitating certain forms of behaviour, but in

> becoming 'part of the person', of being incorporated into one's concept of self.

He goes on to consider some of the emotional implications of the physical environment being understood as part of self-identity.

> The intensity of 'grieving for a lost home' becomes clearer when we understood forced relocation as an attack on 'self' rather than an attack or 'property'. (p. 343).

This clearly echoes deep ecologists' descriptions of 'natural' reactions to that-with-which-one-identifies. Both in their recognition of *interdependence* between the individual and the physical environment, and in the importance of place to an understanding of *identity*, these theoretical and research projects are moving towards a deep ecological notion of 'ecological self'. Most research and discussion surrounding these constructs, however, centres around the built environment, particularly homes, schools and work-places. Also, any investigations of function or change generally focus on the effects of environment, and environmental change, on self-identity. Comparatively little attention is paid to the effects of different concepts of the self on individuals' *behaviour towards* the physical environment.

Consequences of an expanded sense of self

The second major parallel between constructionist self theory and 'ecological self' concerns the hypothesized effects of an expanded sense of self on the functioning of an individual, and therefore on the surrounding 'others' who are included in this expanded construal of self. Cross-cultural psychology and anthropology have been major sources of information concerning self-concepts that expand beyond the individual person. Markus and Kitayama (1991; Kitayama & Markus, 1994) review this research and distinguish two very different construals of self, both limited to the social world. These are the *independent* view of the self, most common in modern Western societies, and the *interdependent* view of the self, which is common in many Asian cultures. The main difference between the two concerns what people believe about the relationship between the self and others and, especially, the degree to which they see themselves as separate from or as connected to others.

Underlying the *independent* construal of self is a belief in the inherent *separateness* of distinct persons. The concept of 'self' generally refers to one's own *internal* repertoire of thoughts, feelings and actions. Others, or the social situation in general, are important, but generally as sources that can verify and affirm the inner core of the self. An *interdependent* construal of self is based upon a belief in the fundamental *connectedness* of human beings to each other. Experiencing interdependence involves seeing oneself as part of an encompassing social relationship and recognizing that one's behaviour is contingent on the thoughts, feelings and actions of *others* in the relationship. What is focal in the interdependent construal of self is not the 'inner self' but the *relationships* of the person to others.

The interdependent view of the self is most closely related to the notion of 'ecological self'. Theoretically, the interdependence simply needs to be extended from the relationship with 'others' (meaning certain human beings) to 'all life forms, ecosystems and the planet itself'. The principles involved are the same. That is, an *ecological* construal of the self involves a belief in the fundamental *connectedness* of human beings with the rest of the natural world. Experiencing ecological self involves seeing oneself as part of an encompassing biophysical/spiritual relationship, and one's behaviour is contingent on the state-of-being of *others* (e.g. plants, animals, humans, the atmosphere and landscapes) in this relationship. What is focal in the ecological construal of self is not the 'inner self' but the *relationships* of the person to the natural environment (including other human beings).

Construals of the self that correspond to this description can be found among many hunting and gathering societies and often involve systems of kinship and totems (Myers, 1986; Rose, 1987; Reser, 1991, 1994; McAllester, 1992). This results in a fundamental and complex system of interconnectedness and responsibility between all members of the tribe and strong connections to, and responsibility for, certain species and tracts of land (Bennett, 1983). There is also evidence of such an ecological construal of self in many Asian cultures, in which the person is thought to be of the same 'substance' as the rest of nature (Mathews, 1991). This self–nature relationship is reflected in empirical cross-cultural research and is associated with an interdependent view of the self (Markus & Kitayama, 1991; Kitayama & Markus, 1994). For example, Japanese research participants often provided extremely global self-descriptions, such as 'I am a human being', 'I am an organic form' and 'I am a product of my environment', while participants in the U.S.A. provided significantly fewer instances of this type of statement (Cousins, 1989).

In their review of cross-cultural research, Markus and Kitayama (1991) explore a series of hypothes-

ized consequences of independent and interdependent views of the self on the psychological processes of cognition, emotion and motivation. They suggest that the effects of different construals of self are even more powerful than have previously been suggested by psychologists and anthropologists, and that these effects are clearly reflected in differences between cultures. Markus and Kitayama explore the interdependent construal in fine detail and also provide theoretical explanations of the workings of the hypothesized consequences. In the space available here, I shall briefly outline some of the hypothesized consequences that were supported by empirical research (Table 2) and expand on their implications for the notion of ecological self.

The following suggestions are based on the assumption that an ecological view of self is an extension of an interdependent view of the self to include nonhuman beings. I assume that the same psychological principles are in operation — that consequences of an interdependent view of the self can be extended to consequences of an ecological view of the self, simply by expanding 'others' to include the natural environment as well as the social world. Following this analysis, *if* the view of the self is expanded to include the natural environment, the following consequences might occur.

Cognitive consequences of an ecological construal of self would include a heightened sensitivity to information concerning the environment and the self-in-relation-to-the-environment. People would perceive themselves as more similar to other life-forms. Emotional consequences of an ecological view of self would be the experience of more feelings of sympathy and connectedness with plants, animals and ecosystems. People may feel more shame at not behaving towards them in a life-affirming manner and experience more anger when they are threatened. Most importantly for the environment, individuals with ecological selves would have different *motivations* for action. Instead of focusing on actions that express their individual (and particularly human) needs, desires and attributes, they might be drawn to activities that enhance their connectedness with the ecosystems of which they know they are a part. They might start to feel good about themselves because of their abilities to adjust and maintain harmony with their environment, rather than their ability to express themselves.

These hypothesized consequences of an 'ecological' construal of self, following Markus and Kitayama's model, provide some psychological theoretical support for the aspects of ecological self described by deep ecologists (see Table 1). However, two vital questions remain. First, is it *possible* to expand one's construal of self so far as to contain 'all life-forms, ecosystems and the planet itself'? Second, if this is possible, and there are people who do construe themselves as 'ecological selves', do these individuals then also exhibit the cognitive, emotional and motivational consequences suggested by this analysis? Although these are primarily empirical questions, certain constructionist theories of self are of relevance here.

Self-construct change

The third major contribution that constructionist theories of self make to an understanding of ecological self is in relation to the deep ecologists' notions of self-construct 'expansion'. Several theories offer insight into the formation, stability and change of construals of the self. Most constructionist theories concentrate on the long-term effects of surrounding culture on the individual's self-concept, particularly during childhood development (Mead, 1972; Guisinger & Blatt, 1994). This cultural analysis is undoubtedly useful if the environmental psychol-

TABLE 2
Consequences of an interdependent view of self

Cognitive:–a heightened sensitivity towards information about significant others with whom the person has a relationship–an increased perception of similarity of self to others.

Emotional:–an increase in what can be called 'other focused emotions', such as sympathy, feelings of interpersonal relatedness/communion, and shame, which have another person as the primary referent (as opposed to emotions such as anger, frustration and pride, which have the individual's own needs, goals and desires as the primary referent)–a difference in the eliciting conditions of the same emotions, e.g. anger elicited by wrong-doings to others rather than when the individual themselves are threatened.

Motivational:–a person with an interdependent view of the self is more motivated to actions which enhance one's relatedness or connection to others–an ability to adjust, and maintain harmony with the social context, is valued above having an ability to express oneself or validate one's internal attributes (as in the independent self)

Adapted from Markus & Kitayama, 1991, *Psychological Review*, **98**.

ogists' long-term goal is to transform the whole of modern Western society into one that is more ecologically sound (Stern, 1992). In terms of immediate action, however, and expanding people's self-concepts once they have already been formed in our individualist culture, a more 'therapeutic' model of self-construal change might be more appropriate.

George Kelly's 'personal construct theory' contains one such model. He outlines three conditions that he found are favourable to the formation of new constructs (1991, pp. 112–116). These are:

(1) an atmosphere of experimentation: new constructs are developed, and 'tried on for size'; it is an atmosphere of make-believe, of acting 'as if' the self is different;
(2) the provision of new elements: elements that are relatively unbound by old constructs are introduced into a 'protected environment';
(3) making validating data available: this enables the validation of new constructs and the invalidation of old constructs.

Kurt Lewin's 'field theory' (Bargal *et al*., 1992), like Kelly's 'personal construct theory' (Davidson & Reser, 1993; Butt & Burr, 1995) bridges the gap between social and individual levels of analysis. Lewin conceptualized individuals in relation to their relevant environment, or 'life space', and so *groups*, of which individuals were integrated parts, became his targets for effecting social change. In his early studies of group dynamics in the 1940s and 50s, he demonstrated that *individuals*' attitudes could be more effectively changed as part of a small group. According to Lewin, change occurred through a process of 'unfreezing' of old attitudes and 'movement' of the whole group to a new attitudinal position, followed by the 'freezing' of the group at its new position. This process was most effective when the group dynamics allowed change to occur 'from within'. That is, a democratic or *laissez-faire* facilitation style was more effective than authoritarian leadership and the provision of 'information'. While Lewin's groups initially aimed at affecting social change, they developed into exploration of group dynamics, sensitivity training and encounter groups of the human potential movement (Back, 1973). 'Group psychotherapy', with mainly psychoanalytic roots, also influenced the human potential movement (Shaffer, 1978; Shapiro, 1978) and continues today in the form of 'therapeutic communities' (Miller, 1992) and the 'small-group movement' (Wuthnow, 1994).

Each of these theories can be used to describe the processes occurring during experiential workshops designed and facilitated by deep ecologists to enhance participants' experiences of ecological self and thereby increase their environmentally responsible behaviour (Seed *et al*., 1988). These workshops are called The Council of All Beings and usually take place over a weekend. They have their origin in the 'human potential movement' (Shaffer, 1978), incorporating a variety of encounter group processes and 'despair and empowerment' techniques (Macy, 1983). Often being held in natural settings, the workshops are also used as a form of outdoor environmental education (Brown, 1989; Fien, 1993; Corcoran & Sievers, 1994). While there are no obvious historical links with 'personal construct theory', the workshops are a direct descendent of Lewin's work (via the 'human potential movement'; Back, 1973), and the idea of the workshops as a form of 'community therapy' has been noted by the deep ecologists themselves (Seed *et al*., 1988).

Evaluation of The Council of All Beings workshops

Over the past 3 years, I have been involved in a collaborative 'action' research project (Reason & Rowan, 1981; Miller *et al*., 1984; Reinharz, 1992) investigating The Council of All Beings workshops in Australia, the U.S.A. and Russia. A multimethod research approach (Jayaratne & Stewart, 1991; Reinharz, 1992) was used, incorporating participant observation, pre- and post-workshop structured interviews and written exercises, and 6-month follow-up questionnaires. My interest, as an academic psychologist, has focused on participants' and facilitators' self-concepts, comparing them with self-concepts of other sections of the community. I have also evaluated the effectiveness of the workshop as a change agent of self-concept and investigated the processes involved in such change. As Rayna Reiter describes action research, however, 'analysis . . . must always accompany action for fundamental social change' (in Reinharz, 1992, p. 175). Results have provided specific feedback to designers and facilitators of The Council of All Beings (e.g. Bragg, 1995*a*), and findings have been integrated into the ongoing form of the workshops (J. Seed, personal communication, 5 July 1994). This study is part of a larger research project investigating 'ecological self' in the broader community, through in-depth interviews with participants from various community groups (farmers, environmentalists, alternative life-stylers and city-dwellers) and the content analysis of popular Australian magazines (Bragg, 1994, 1995*b*). The present paper focuses on

describing some of The Council of All Beings processes, with reference to Kelly and Lewin's theories of self-construct change (Kelly, 1991; Bargal *et al*., 1992).

The main exercise of the workshop closely resembles Kelly's 'fixed role therapy', in which clients 'try on' new selves (Kelly, 1991, p. 114). In 'fixed role therapy', an appropriate character is created for clients by the therapist, which the client then 'plays'. New behaviours are practised, and the clients begin to construe themselves, others and events in new ways, all under the protection of 'make-believe'. The Council of All Beings exercise is also a 'role-play', aided by the creation of masks, movement and sound, in which each participant takes the role of a nonhuman being (such as the sun, a rock, a plant or an animal). The group of 'beings' form a circle, a 'council', and the participants speak *in the first person* for that being in a discussion that often lasts up to 3 h.

Throughout the Council exercise, Kelly's 'conditions favourable to the formation of new constructs' are met. First, there is most definitely an atmosphere of 'play', of 'make-believe', which is particularly enhanced by the mask-making. Participants all 'know' that the whole process is 'not real'. They play the parts in all seriousness, yet with the freedom of experimentation and exploration that this knowledge allows. Second, many 'new elements' are introduced to the participants that are difficult to make sense of in terms of their usual constructs. For example, the whole process of 'sitting in council', in a fair and equal, 'listening' discussion circle (an interdependent system) is something outside most participants' everyday experience. New elements of character, 'ecological' aspects of their personality, are introduced for each participant. Nonhuman beings are introduced to participants as thinking, feeling creatures with whom it is possible to understand, strongly empathize and directly communicate. Third, the construction of the participants' new 'ecological selves' is aided by the validation received from all the other participants in the workshop. Everyone responds to everyone else 'as if' they were indeed the sun, a rock or a plant, and supports their construal of the world. Similarly, the human-individualist perspective, when raised, is often spontaneously invalidated by participants, or at least deeply questioned (even if responded to with sympathy and understanding).

An alternative explanation for this process is the psychoanalytic concept of 'projective identification', which, although originally conceptualized as a defence against anxiety, has been utilized extensively in group psychotherapy (e.g. psychodrama and gestalt therapy; Shapiro, 1978). Projective identification, as described by Mitchell (in Hollway, 1989, p. 75), is a process in which 'the ego projects its feelings into the object which it then identifies with, becoming like the object which it has already imaginatively filled with itself'. Greenway (1993) criticizes deep ecology and ecopsychology for an over-reliance on these processes to elicit experiences of connection with the natural environment, because the relationship that is being developed is only a relationship with *projected* aspects of the *self*, rather than the 'actual' external environment. As Macy (1983) suggests, however, the 'reality' of the situation is not what matters here, but whether the techniques elicit experiences of 'ecological self'.

Several of the group processes recommended by Lewin (Bargal *et al*., 1992) also appear to be operating in The Council of All Beings workshops. The facilitation style is *laissez-faire*: facilitators are total participants in the workshop and opportunities for participants to engage in facilitation are encouraged. While the facilitators provide narratives (e.g. the history of the workshop or supportive myths such as 'The Shambhala Warrior') and instructions for each structured experience, most of the 'information' disseminated in the workshop is generated by the participants themselves. The sequence of 'unfreezing, movement and freezing' is also apparent in the structure of the workshop. 'Trust exercises' and strong emotional experiences double to create the necessary group cohesiveness and to effectively challenge participants' normal ways of relating and construing themselves. Movement towards experiencing 'ecological self' appears to be created by the specific structured experiences themselves (e.g. expressing grief at the destruction of nature, meditation in nature and role-play of nonhuman beings) and also through the processes of consensual validation (by the 'in-group' of workshop participants) and upward social comparison (compared with the 'out-group' of environmentally destructive individuals). The final session of the workshop, preparing to 'go out into the world', often includes the setting of personal goals, sharing experiences and evaluations of the workshop, and planning future meetings of the group. These 'grounding' activities may function to 'freeze' the changes that have occurred.

The preceding theoretical analyses suggest that The Council of All Beings may indeed be effective in expanding participants' self-concepts to include 'all life-forms, ecosystems and the planet itself'. Questions however, remain: does it *work*? Are the con-

ditions provided by the Council of All Beings sufficient to enhance individuals' experiences of 'ecological self'? Do participants' construals of self expand to include other life-forms, ecosystems and the planet itself? If so, how long do these changes last and what are their consequences, particularly in terms of environmentally responsible action? These are empirical questions that I have addressed in the aforementioned research project (Bragg, 1995*a*,*b*).

One of the methods used to operationalize 'ecological self' was the Twenty Statements Test (TST; Kuhn & McPartland, 1954), which simply asks 'Who am I?' 20 consecutive times. It was administered at the beginning and end of each workshop and then 6 months later. Responses were coded using a variation of Cousin's (1989) coding scheme, expanded to code the extent and type of 'ecological' content, and statements of 'empowerment', 'relatedness to other people' and 'personal growth'. All responses of the participant quoted at the beginning of this paper, for example, were coded as representing an ecological concept of self. Using results from three Australian workshops, the mean 'ecological' content of self-construals increased significantly between the beginning and the end of the workshops, but dropped to a pre-workshop level after 6 months. Participants in The Council of All Beings, however, had more 'ecological' self-construals, even before the workshop began, than did individuals from the broader community who completed the TST in the context of an 'environmental interview'. Interviews and follow-up questionnaires suggested that participants *did* have powerful experiences of ecological self during the workshop, but that these experiences were relatively difficult to integrate into daily life and especially hard to explain to friends and family. Individuals who had found social support for their experiences (e.g. joining a women's spirituality group or an environment group) continued to have high scores of 'ecological self' 6 months later, and several described the Council as the 'turning point' in their lives or as a catalysing event. These results suggest that 'ecological self' is dynamic and highly reactive to individuals' surrounding 'life-space', necessitating the continuation of Council-like experiences for its maintenance.

A significant change in self-construal, as measured by the TST, that *was* maintained after 6 months was the mean level of 'empowerment'. Interviews and follow-up questionnaires suggested that the experience of community and social support provided by the workshop was more stable than 'ecological self'. Some of the problems with the workshop identified by the evaluation included: (a) the strengthening of in-group/out-group distinctions (i.e. the 'us' and 'them' of the 'environmentally friendly' vs the rest of society) , (b) only reaching people with a strong 'ecological self' and therefore not being an effective change agent of society (i.e. 'preaching to the choir'), and (c) not effecting an increase in environmentally responsible behaviour (partly because many participants were already active in the environment movement). In summary, The Council of All Beings seems to be very effective as an empowerment tool for activists but not as a social change agent in itself.

Conclusion

The research project with which I have been involved has specifically investigated the philosophy and social movement of 'deep ecology' as one possible direction in which to expand academic environmental psychology. I believe that social psychology, particularly by integrating phenomenological and social constructionist approaches to the study of the relationship between self and the natural environment, can play a broader and important role in the development of a more 'environmental' psychology — a psychology *effectively* directed towards the welfare of the natural environment (Mack, 1992; Bonnes & Secchiaroli, 1995; Reser, in press). First, it provides a means to document and explore emerging social and personal constructions of the person/planet relationship (e.g. Graumann & Kruse, 1990; Hansen, 1991; Shaw-Jones, 1991). Second, it offers techniques of evaluating the effectiveness of a *broad* range of programmes that are designed to alter individuals' relationships with the natural environment. Rather than limiting evaluations to the more traditional behaviour change strategies (e.g. Geller, 1992; Dwyer *et al*., 1993), 'informational' environmental education (Robottom, 1987; Fien, 1993) and correlational studies of environmental attitudes and behaviours (Stern, 1992; Stern *et al*., 1992), a constructionist approach to evaluation could examine these traditional fields in new ways (e.g. Gough, 1991; Robertson, 1994) and also expand to evaluate more 'experiental' techniques, including wilderness experiences (Greenway, 1993), ecotourism (Bragg, 1990), direct environmental action (Devall, 1988) public participation and conflict resolution in relation to environmental management (Cassells & Valentine, 1988) and 'ecopsychotherapy' (Roszak, 1992). Third, as I

have attempted to do in this paper, constructionist self theory and research can help to bridge the gap between environmental social movements and the more 'mainstream' environmental psychology. In this way, a mutually beneficial relationship may be formed, in which new constructs can be elaborated for further academic investigation and academic analyses may provide useful ideas for application by social movements. Together, we may be able to encourage environmentally responsible attitudes and behaviour in our society.

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