# Bearing Nature In Mind...

From passive mechanical order to the creative mysteries of chaos



Russell BonceyModule 406:Conceptions of Animals, Plants and NatureTutor:Vernon PrattWord-count:4,970Weighting:100%

# Bearing Nature In Mind... From passive mechanical order to the creative mysteries of chaos

Speaking of nothing more than what we are – How exquisitely the individual Mind

... to the external world Is fitted: - and how exquisitely too –

... The external world is fitted to the Mind; And the creation (by no lower name Can it be called) which they with blended might Accomplish

> Wordsworth ('Home at Grasmere' lines 1005-6, 1008-9, 1011-14)

In nature they found a solace which gave stability And purpose to the chaos of feeling.

J.H. Plumb ('England in the Eighteenth Century', 164)

#### Abstract

Wordsworth's conception of mind – as representative of Romantic thought – as a link in a chain leading to contemporary environmental thinking – as portraying mind and environment in mutually expressive relationship – Wesson's chaos perspective provides a scientific rationale for Wordsworth's poetical insight – The Open Concept of Mind – preserves agency and creativity against more deterministic positions – Extension of mind-like qualities to other living things – as consistent with Plumwood's anti-dualistic argument – as conceptually problematic – as potentially detrimental to conservation strategy – The Open Concept of Mind assumes favourable attitudes to the environment – potentially counterproductive in urban contexts – not, therefore, an effective agenda for conservation – Solution envisaged: greening the cities.

#### Introduction

This paper asks if Wordsworth's conception of mind can inform contemporary environmental concern in ways consistent with current evolutionary theory. The first section examines Wordsworth's conception of mind as expressed in the poem 'Home at Grasmere'. Wordsworth is taken as representative of the English Romantic movement as a whole<sup>1</sup>. His conception of mind is presented as a precursor of neo-Darwinian analyses of the reciprocal relations between organism and environment. The problem of mind is located as central to an exploration of human-nature relations because neo-Darwinian theorists have sought to examine the genesis of mental processes as an exemplar of human origins and, by extension, of the causal origins of all forms of life<sup>2</sup>.

The second section pursues the enquiry by showing how this expressivist conception of reciprocity preserves a higher degree of agency and creativity than other, more deterministic positions within twentieth century sociological and evolutionary theory. Subsequently, it is argued that this more open conception of mind is echoed in Val Plumwood's<sup>3</sup> contemporary eco-feminist philosophical position. Robert Wesson, a primary source for neo-Darwinian thinking is then drawn upon. His 'beyond natural selection'<sup>4</sup> perspective provides a scientific justification for the eco-feminist position that posits but does not, in itself, demonstrate the divisiveness of mind-nature dualism.

The final section presents two related objections to the Wordsworthian conception of mind that militate against its adoption as a panacea to environmental destruction. These objections are presented as inherent in the logic of the 'open' conception of reciprocal relations between organism and environment. Ultimately it will be suggested that in terms of conservation policy, the only effective counters to these objections are political rather than philosophical or scientific.

# A Blended Fit: Wordsworth's Conception of Mind

Wordsworth's conception of mind is a precursor of neo-Darwinian analyses of reciprocal relations between organism and environment. As a representative of Romantic thought, Wordsworth did not write in a vacuum sealed off from historically contiguous conceptual developments. In the absence of direct quotation or acknowledgement it is not suggested, however, that the lines of influence are easily traceable from one époque<sup>5</sup> or from one thinker or group of thinkers to another. In

<sup>&</sup>lt;sup>1</sup> Despite their differences, the six great poets of the English Romantic Movement (Blake, Wordsworth, Byron, Keats, Shelley, Coleridge) "show essential similarities in their response to the same historical situation, and do form a coherent group". See 'The Romantic Movement' at <u>http://thecriticalpoet.tripod.com/romantic.htm</u>

<sup>&</sup>lt;sup>2</sup> See: Barkow et al 1992, Gazzenega 1992, Gould 1977 (Bibliography)

<sup>&</sup>lt;sup>3</sup> See bibliography and page 8ff.

<sup>&</sup>lt;sup>4</sup> See bibliography and page 5ff.

<sup>&</sup>lt;sup>5</sup> Keith Hanley sees Wordsworth's poetical language as making a revolutionary and ideological break with prior literary traditions. See bibliography and <u>http://users.ox.ac.uk/~scat0385/revolutionLB.html</u>. This paper accents the view of the Romantice as taking an overt stance accinct the mechanistic

This paper accepts the view of the Romantics as taking an overt stance against the mechanistic interpretations of life developed in the seventeenth and eighteenth centuries. If a leap back to medieval scholasticism is made, however, it becomes possible to frame the Romantic vision of human

France, Lamarck (1744-1829) was already investigating<sup>6</sup> the direct inheritability of an organism's acquired characteristics before Wordsworth wrote the lines quoted<sup>7</sup> from 'Home at Grasmere'. It is known that Wordsworth, "filled with enthusiasm for the French Revolution" (Grey of Fallodon, xi), spent almost a year in Orleans and Blois between 1792-3. But there is no evidence to suggest that he was aware of Lamarck's work or drew in any way upon other French naturalist sources concerned with the interplay of organism and environment. Robert Richards reports how the American philosopher and experimental psychologist William James administered an effective 'direct spiritual therapy' to himself during the intense emotional crisis he experienced in the early 1870s: strong doses of Wordsworth's poetry. It was, apparently, an anodyne that the British utilitarian J.S. Mill also used. (Richards 1987, 422). There is no evidence to suggest that Darwin ever read Wordsworth. It is the modern neo-Darwinians who write of the 'expression'<sup>8</sup> of genetic inheritance in succeeding generations of organisms and of the reciprocal relations subsisting between organism, mind and environment. Nor did Darwin establish a two-way mutually structuring relationship between organism and environment. That was to be the work of much later thinkers (Wesson 1991). Darwin's 'descent with modification' thesis was an essentially unidirectional causal explanation of how environments 'select' or 'fit' organismic adaptations for survival (Darwin 1859).

What emerges from the foregoing is the impression of an ongoing chain of concern with mind-nature relations that precedes, is expressed in and continues after the Romantic period up to the present. It is a chain with sometimes missing and sometimes difficult-to-perceive links. The outcry of the Romantic poets against 'the presumed inertness of the fundamental constituents of the universe, and of the human mind' (Pratt 2000, 3) was a reaction to eighteenth century Enlightenment thought – but this reaction did not simply constitute an interregnum between earlier and later phases of the onslaught of scientific determinism. In three different but complimentary ways, the Romantic rejection of:

"The dichotomy between the mental and material worlds which philosophers had largely taken for granted since the seventeenth century..." (Winkler 1957, 152)

can be seen as informing modern environmental concern. Firstly, by providing a link, via Emerson, between the German *Sturm und Drang* nature philosophers Goethe, Schiller and Schelling and the American environmental thinkers Thoreau and Leopold, the Romantics may be seen as precursors of contemporary 'deep' ecology (Acot 2000). Secondly, by transforming 'an outmoded pantheistic (spectator-spectacle) ontology into

embeddedness in nature as akin to the idea that the place of human beings is in 'The Great Chain of Being' – an idea reinforced, for example, by the writings of Albertus Magnus. Leaping forward in time, Wesson's 'beyond natural selection' thesis can be interpreted as a contemporary though non-explicit continuation of that inter-linking conception of human beings and nature.

<sup>&</sup>lt;sup>6</sup> For a discussion of Lamarck's work and publications see Richards, R, pp 47-57 (Bibliography).

<sup>&</sup>lt;sup>7</sup> The lines are from 'The Recluse' – a project Wordsworth never completed. See Mason, M

<sup>(</sup>Bibliography)

<sup>&</sup>lt;sup>8</sup> See, for example, Barkow et al 1992, Gazzenega 1992, Gould 1977, Wesson 1991 (Bibliography). 'Expression' is a key notion for the argument developed in this paper. Mind and nature are intimately linked. They structure one another through relationship. One 'expression' of nature is mind itself, and hence the products of mental processes: thoughts, ideas and behaviour. Nature is an expression of mind to the extent that thoughts and ideas contribute to behaviours that shape the environment and all that it contains. This argument is developed on pages 5 and 6, below.

a modern (participant-observer) one' whereby 'the spirit indwells in the mutually constituting *relationship*', Wordsworth in particular can be seen as anticipating twentieth-century phenomenology, the philosophy of experience (Coletta 2000, 79). Thirdly – and as the lines from 'Home at Grasmere' indicate – Wordsworth anticipates:

"the new interest on the part of nineteenth-century natural scientists in the analysis of reciprocal relations between 'organism' and 'environment'" (Coletta 2000, 80).

The lines quoted at the beginning of this paper were written some fifty years before Darwin published his 'descent with modification' thesis in *The Origin of Species* in 1859. They show Wordsworth's mind-nature interpenetration as a critical link in a chain of concern that provides:

"...a powerful and truly radical alternative to received ways of thinking about ourselves and 'nature" (Pratt 2000, 3).

A scientific rationale is provided by the 'beyond natural selection' perspective of chaos theory (Wesson 1991) for Wordsworth's critical insight into mind-nature reciprocity. The remainder of this section focuses upon both this scientific rationale and Wordsworth's reciprocal conception of mind-nature relations.

The lines quoted from 'Home at Grasmere' portray a mutually structuring, mutually dependent and mutually expressive reciprocal relationship between mind and environment. It is an evocation of human mental development in which "human life is seen as manifesting a potential which is also being shaped by this manifestation" (Taylor 1989, 375). Human action and thought are conceived of as expressions of an inner nature. Expression is conceived of as an articulation which both manifests that inner nature and defines human beings - Wordsworth refers to "the individual mind" here – as embedded in nature. In other words, what is evoked is a form of self-defining expression that does not simply externalise "an already determinate formulation", but one that "cannot be fully known outside of and prior to its articulation" (Taylor, ibid) in thought and action. The idea is that the environment - Wordsworth's 'external world' structures the mind and that through behaviour the mind does not simply express prior environmental influence but also registers its own previous structuring action upon the environment. It is this blending of mutual influence in a constant feedback cycle that ensures that each successive 'expression' of the relationship is different from all others, thus preserving creative individuation. No two individual minds can express themselves in identical ways. And each individual mind progressively creates a distinct environment for itself.

The notion of expression through reciprocal structuring finds its scientific rationale in Wesson's 'beyond natural selection' thesis:

"Ideas, although they are not fixed or stable, are a little like organisms in having something of a life of their own in the environment..." (Wesson 1991, 285).

Wesson's basic thesis is that a wholly passive and therefore deterministic conception of evolutionary processes is erroneous. He maintains that although there is a mechanistic side to the expression of environmental influence in the behaviour of organisms, an active and therefore creative side is guaranteed by both the complexity of mental life and the diversity of the environments in which mental life expresses itself. Behavioural creativity, mental complexity and environmental diversity add up to a notion of chaos. Chaos defies the radical determinism of either the 'hard-wired' evolutionary theorists<sup>9</sup> or the Pavlovian-inspired conditioning imperatives of the Standard Social Science Model<sup>10</sup> of human-environment interactions:

"The difference between the active and the passive, mechanistic sides of evolution is not sharp, but it is real. The genome is not only subject to environmental causes but is creative. How this comes about is largely mysterious. But perhaps life is inherently mysterious, as the most highly ordered aspect of a universe that can only incompletely comprehend itself. ... If there is what may be called a spiritual element in humans, evolution cannot have been a wholly mechanistic process." (Wesson 1991, 294 and 305)

Wordsworth's conception of mind does not precisely coincide with Wesson's 'beyond natural selection' thesis. Wesson's affirmation of a persistent mechanistic element in evolutionary processes enfolds a notion of passivity that was anathema to the Romantics. There is no historical evidence to validate a claim that Wordsworth deliberately drew upon the scientific writings of his day in order to formulate his mind-external world 'fit'. And even if there were, it would be anachronistic to contend that he could have expressed ideas that emerged only after the findings of extensive post-Darwinian scientific research had been wrought through successive reformulations across a century and a half. The modernity and sophistication of Wordsworth's conception of mind becomes apparent, however, when viewed from a 'chaos' perspective that asserts the reciprocal interplay of mind, organism and environment. It is in this that it may be considered relevant to contemporary environmental debate.

# Agency and Creative Accomplishment: The Open Concept of Mind

Wordsworth's conception of mind is an open one. It preserves a higher degree of agency and creativity than the more deterministic positions of many of the social scientists who adopted the Standard Social Sciences Model. Agency and self-determination are absent from many of the theses of the post-Darwinian evolutionary theorists of mind. Wesson's conception of the mind-organism interplay retains mechanistic passivity. Its elaboration in terms of reciprocity leaves the determination of individual accomplishment open-ended. Its invocation of the unpredictability of 'chaos' preserves a substantial margin for imaginative and personal engagement with nature:

"There is something of self-hate in the materialist approach. It depreciates the life of the mind and works of imagination and character. It demeans the richness and wonder of nature." (Wesson 1991, 308).

By 'materialist approach' Wesson is referring to the ways in which, throughout most of the twentieth-century, evolutionary theories of mind have been largely reduced to analyses of electro-chemical functioning in the brain within a 'selfish-gene' natural

<sup>&</sup>lt;sup>9</sup> This notion will be explained in the following section.

<sup>&</sup>lt;sup>10</sup> To be explained in the following section.

selection paradigm<sup>11</sup> that has occulted the effective socio-political purchase of the 'powerful and radical alternative' (Pratt 2000, op. cit.) offered by the Romantic outcry and, to a lesser extent, by his own 'beyond natural selection' argument. His reference to 'the richness and wonder of nature' also suggests that the more 'open' concept of mind to which he subscribes permits an extension of mind-like qualities to other living things. This extension is addressed in the next section.

Wesson objects to the theoretical positions of those post-Darwinian evolutionary theorists whose hard-wired conceptions of mental life and human behaviour deny agency and creative accomplishment. He is referring to scientists such as Dawkins, Barkow, Cosmides and Tooby<sup>12</sup> and to linguists such as Chomsky and Pinker<sup>13</sup>. They are referred to as 'hard-wired' theorists because they analyse the behaviour of organisms and mental life as being determined by mind-modules, or mental circuits. The mental circuitry is selected for by evolutionary processes. Consequently, human beings and many animals are considered as born with ready-made behavioural responses to environmental prompts as part of their genetic endowment. The mental circuitry over which they have little or no control causes them to behave in predetermined ways. Such a mechanistic 'hard-wired' view of mental life and behaviour is the antithesis of the Standard Social Sciences Model (the SSSM), which attributes behavioural and mental causality to cultural influences. The SSSM incorporates the idea of the newborn mind as largely blank and thus perpetuates the Lockean notion of the mind as a *tabula rasa* upon which cultural learning inscribes patterns of behaviour and thought. Extreme SSSM theorists such as Durkheim are sometimes considered by 'hardwired' evolutionary theorists as determinists and anthropocentric elitists because they suggest that the culture into which an individual is born conditions agency out of her behaviour and thought whilst generally placing a higher value on human culture than animal communities (e.g. Barkow et al 1992).

Wesson's 'beyond natural selection' thesis attempts to reconcile these positions. He cites "...demoting the animal itself to being merely the means of replicating genes<sup>14</sup>" and the reduction of individual bodies to 'throwaway survival machines' (Wesson 1991, 11) as examples of an overly ordering, mechanical principle of natural selection that denies the reciprocal interpenetration of mind and environment.

Other late expressions of the overly materialistic worldview criticised by Wesson are to be found in authoritative sources:

"...romantic love is a chemically induced form of madness and a terrible basis for social organisation,..." (Carter 1998, 76)

"...all the ways human societies try to change minds and to change how we humans truly interact with the environment are doomed to fail." (Gazzaniga 1992, 7)

<sup>&</sup>lt;sup>11</sup> This paradigm was developed by R. Dawkins in *The Selfish Gene*.

<sup>&</sup>lt;sup>12</sup> See Bibliography

<sup>&</sup>lt;sup>13</sup> Pinker was Chomsky's student. Chomsky developed a theory of language known as 'deep grammar' that posited a basic structure of language common to all cultures and largely independent of environmental context. See Pinker, S: *Natural Language and Natural Selection* in Barkow et al, ed: The Adapted Mind, op. cit. See Bibliography

<sup>&</sup>lt;sup>14</sup> This is a direct reference to Dawkins, op, cit.

Hobson (1994) may also be cited for his view of mind as nothing more than all the information in the brain.

Such references appear to support Wesson's criticisms of the hard-wired theorists. They seem to eliminate an understanding of mind as generative of agency, purpose, feeling and self-determination. Wesson does not offer any criticisms of the deterministic positions to be found within the ambit of the SSSM. His polarisation of the 'hard-wired' post-Darwinian evolutionary theorists does not do justice to the positions of certain sociobiologists, such as Wilson, who have attempted to formulate their own syntheses of the nature-nurture debate (Wilson 1975). Wilson explicitly stated in a recent television series, for example, that the resolution of environmental problems was largely a question of choice<sup>15</sup>. Contrary to Wesson, choice, and hence agency, would appear to be reconcilable within certain neo-Darwinian 'hard-wired' conceptions of the evolutionary process. It cannot therefore be argued that evolutionary thinkers systematically operate a kind of conceptual reductionism. Wilson, notably, sought to promote a broad and egalitarian appreciation of life on earth (Wilson 1978). Polarisation also occurs in the writing of other analysts of organism-environment relations. The evolutionary psychologist Barkow accuses Durkheim, the sociologist, of intellectual monism because of the latter's insistence that cultural and social forces are the only determinants of behaviour (Barkow et al 1992, 25-28). It is contended that such hyper-separation of potentially convergent views sustained a divorce of the 'interpretative' social sciences (taken to include the 'humanities' such as philosophy) from the 'analytical' natural sciences for much of the twentieth century. One consequence of this divorce is the perpetuation of the Lockean notion of the mind as a tabula rasa within the Standard Social Sciences Model (Barkow 1995) and the pitting of this empty mental slate against the hard-wired conception of mental-life amongst 'evolutionary' scientists. In both camps the 'felt' aspects of lived experience (the innate sense of self and purpose) have been devalued and metaphysics - the philosophy of mind – has either been relegated to the margins of contemporary debate concerning the human-nature relationship or condemned as a cause of environmental destruction:

"Mind is defining of and confined to human knowers, and nature is merely alien." (Plumwood 1993, 116)

One risk of portraying the conceptions of the social sciences and evolutionary psychology as polar opposites is to occult the claims made by the Romantics for the validity of mind, feeling, agency and the embeddedness of humanity in nature. This in turn reduces the likelihood that such claims will be taken seriously into account in the formulation of conservation strategies and policies. Another risk is to deny a possible extension of mind-like qualities to other living things.

# **Overcoming Mind-Nature Dualism**

The extension of mind-like properties from human beings to other living things is potentially available within Wordsworth's open conception of mind. It is explicit in Wesson's 'beyond natural selection' synthesis. Both conceptual standpoints

<sup>&</sup>lt;sup>15</sup> State of the Planet series hosted by David Attenborough. (2000, BBC Video, London)

acknowledge mind and environment as identifiably distinct participants in a relationship devoid of *dualistic* antagonism. The eco-feminist position developed by Plumwood in *Feminism and the Mastery of Nature* (1993) echoes Wordsworth's and Wesson's open conceptions of mind. Plumwood posits mind-nature dualism as environmentally destructive but makes scant appeal to scientific conceptions to support her philosophical arguments. Wesson's 'beyond natural selection' perspective provides some scientific justification for Plumwood's attack upon mind-nature dualism. This support is conceptually problematic, however. In terms of conservation strategy it could be counterproductive.

In 'Home at Grasmere' Wordsworth speaks of the 'individual mind' being fitted to the 'external world'. There is no direct indication in the quoted extract<sup>16</sup> that Wordsworth intended animals and plants to be understood as possessing mind-like qualities. His lines may be interpreted as indicating a dichotomy between mind and environment. Both may be conceived of as distinct but linked through mutually structuring relationship. This relationship is not dualistic in Plumwood's sense: it associates different aspects of life without depicting one of those aspects or areas as inferior to the other (Plumwood 1993, 47). That other living organisms fall within the scope of Wordsworth's open conception of mind is to be inferred from the circumstantial evidence provided by his own extensive writings and from the Romantic Project as a whole. The Romantic vision conceived human beings as embedded within nature. The inference to be drawn would be that like and with human beings, other organisms are bound or 'netted together'<sup>17</sup> in environmental reciprocity. A more direct and inclusive interpretation of Wordsworth's lines does not hold. It would necessarily involve the attribution of mental individuality to plants: a conceptual nonsense, since plants do not have brains. It would create a potential dualism if those 'areas' of life with minds were perceived as superior to those without. This can be further explained by reference to the problematic support Wesson lends to Plumwood's anti-dualism.

Wesson presents "human intelligence as an enhancement of animal intelligence" and deduces from this that "other animals must also possess something of mind" (Wesson 1991, 274). This both supports and detracts from Plumwood's eco-feminist thesis. Support is provided by the extension of mind-like qualities – intelligence in this case – from humans to another 'area' of life. But at the same time dualisms are perpetuated. Firstly by the term 'enhancement' which implies that one form of intelligence (human) is superior to another (animal). Secondly by the division of areas of life into those with and those without mind: plants are divided from animals. This is the same problem as that encountered with an overly inclusive interpretation of Wordsworth's 'individual mind'. It is antithetical to the holistic conception of nature Plumwood seeks to defend.

An open conception of mind supports Plumwood's anti-dualistic eco-feminist position. It does so by appeal to the expressivist notion of reciprocation. 'Reciprocation' is inherent in Wesson's post-Darwinian conception of evolutionary processes. Under this conception organisms and environments mutually structure one another in ways perceived to be unpredictable and non-identical due to the 'chaos' of individuated organisms 'expressing' themselves in diverse environments. This coincides with the 'blended fit' Wordsworth spoke of only if the behavioural creativity of human beings is taken to be the 'expressive' equivalent of plant growth cycles and if it can be accepted

<sup>&</sup>lt;sup>16</sup> At the beginning of this paper.

<sup>&</sup>lt;sup>17</sup> This is Darwin's famous phrase.

that no two plants are precisely identical or 'blend' with their environments in precisely identical ways. And only if the notion of mind is suspended from the 'chaos' equation. Plumwood believes in:

"Retrieving a sense of other beings in nature as diverse, richly relational individuals and as originative, intentional agents..." (Plumwood 1993, 119)

Mind creeps back into the 'chaos' equation here since intentionality is a defining quality of mind. Mind seems inescapable if support for Plumwood's eco-feminist thesis is to be provided by Wordsworth and Wesson. Wesson's 'richness and wonder of nature'<sup>18</sup> may be interpreted, without too much slippage, to be a kind of implicit, expressivist, though rather mystical extension of mind-like qualities to other than human organisms. His openness to 'mystery'<sup>19</sup> is an acknowledged and suitably inclusive category in his environmental thinking. Such slippage may not be so readily tolerable to those not already convinced that the richness and wonder of nature is worth preserving. This could result in an out-of-hand rejection of non-anthropocentric conservation efforts motivated by 'open' conceptions of mind-nature relations. City dwellers' participations in mutually structuring reciprocal relationships with urban environments may generate environmentally unsympathetic articulations of mental and behavioural expression.

#### Limitations of the Open Conception of Mind

The open conception of mind-nature relations is exposed to two related objections. The objections are inscribed in the logic of both the Romantic Project and in Wesson's 'beyond natural selection' perspective. They render the open conception of mind-nature inadequate as an agenda for effective environmental conservation.

The first objection is that of 'assumed favourable sentiment' towards nature. Wordsworth and his fellow Romantics assume, as does Wesson, that once one is exposed to strong, passionate and well-reasoned argument in favour of nature, one will adopt the argument as part of one's own outlook and act in accordance with it. The assumption is false. One may be exposed to such argument and then reject it for one or a combination of reasons. The basis for the rejection may be rational disagreement or emotional antipathy. One may accept the logic of the argument but not be able to accept it emotionally, or accept it emotionally but decide to reject it on rational grounds. The desert nomad who fells the last remaining tree in an oasis may well appreciate and sympathise with arguments for the conservation of trees in arid climates. He may not want to cut down the tree in front of him, he may feel a certain kinship with the tree. But faced with economic necessity and a hungry family, a logic of survival will most likely prevail over his aversion to the felling of the tree. Alternatively he may struggle with conflicting emotions - a love of trees, a love of money, a love of comfort, a love of family - in 'deciding' to fell the tree. Or with conflicting sensations that make no appeal to logic or emotion. Warmth and heat versus shade and cool; or the sound of the breeze in the leaves versus the sound of silence. It is possible to continue this permutation of sentiment, reason and sensation ad infinitum. The objection of 'assumed favourable

<sup>&</sup>lt;sup>18</sup> See page 6.

<sup>&</sup>lt;sup>19</sup> See page 6.

sentiment' rejects the linearity of the assumption that moves from expository argument to sympathetic agreement to consistent behaviour.

The second objection grows out of the mutually structuring reciprocal relationship between mind and environment. The logic of this relationship is that both the environment and the mind (and the organism in which it is lodged) are mutually sustaining via a feedback cycle of reciprocal influence and dependency. The open conception of mind of Wordsworth and Wesson assume that the environment in this relationship is 'nature'. Grasmere perhaps, or some other equally idyllic location in Massachusetts<sup>20</sup>. The behavioural expression of the relationship is likely, in these physical circumstances, to be articulated in terms of respect and reverence. One takes care of nature and nature pays one back with its infinite variety. This is not a necessary correlation since some rural inhabitants behave in disrespectful ways towards nature. If an inner city urban environment is substituted for the country idyll, and if one assumes that the mechanism of mind-environment reciprocity continues to function, then the expression of that relationship should, according to the logic of the open conception of mind, be articulated in terms favourable to the perpetuation of all those features of the cityscape in which 'nature' is remarkable by its absence. The population growth statistics of the United Nations<sup>21</sup> are pertinent to this line of reflection. The majority of 'us' are already city dwellers. At constant growth rates, eighty percent of 'us' will live in cities by 2030. If the 'reciprocal' logic continues to function, the majority of human behavioural and mental expressions will be articulated in terms favourable to cityscapes and city-centred preoccupations. Even if a favourable predisposition towards nonurbanised parts of the world can be assumed, then it would be reasonable to suppose that the tendency would be to conceive of nature in anthropocentric and instrumentalist rather than in holistically egalitarian terms.

Wordsworth's conception of mind does not come together with Wesson's 'beyond natural' selection thesis to constitute an effective agenda for the preservation of the natural environment. Confirmed city-dwellers are unlikely spontaneously to support conservation measures that impact negatively upon urban lifestyles they appreciate and to which they have grown accustomed. The political implications of this impasse are as considerable as the options for action are few. As an alternative to the imposition of conservation measures that would be unpopular and which may therefore run the risk of proving unenforceable, the greening of the cities is proposed as a softer and more workable alternative. Bringing nature into the cities is one way of awakening sensitivity to the dilemma of the natural world beyond the cityscape. Once 'nature' is established as a permanent feature of urban environments, it is suggested that the 'reciprocal' logic may work upon the urban mind in such a way as to progressively increase 'natural' sensitivities and orientate mentalities towards a greater integration of the wider community of life.

# Conclusion

Wordsworth's conception of mind belongs to "a family of views" in the late eighteenth and early nineteenth centuries "that represents nature as an inner source" (Taylor, 1989 - 368). Although no firm determining influence can be established between the writings

<sup>&</sup>lt;sup>20</sup> Wesson is a biologist at the Massachusetts Institute of Technology, Cambridge, USA.

<sup>&</sup>lt;sup>21</sup> See: World Population Prospects Population Database, United Nations 20001 at http://esa.un.org/unpp/

of the Romantics and the enquiries of the evolutionists, it is possible to detect a certain continuity of concern between the poets and the scientists. Both intellectual communities may be seen as attempting to understand human-nature relations in terms of origins, purpose, causality and reciprocity. Whereas the poets focused more on origins and purpose, the scientists were more preoccupied with origins and causality. Both were concerned with reciprocity, though in differing ways and in differing degrees. The notion of reciprocity became the locus of much environmentally orientated philosophy, sociological theory and post-Darwinian science down to the present day.

Mind and environment have been portrayed as linked through reciprocal relationship. Wordsworth's lines from 'Home at Grasmere' suggest that mind and environment are mutually dependent, mutually defining and mutually expressive. Wordsworth describes the central notion of reciprocity as the 'fit' between 'the individual mind' and 'the external world'. The 'fit' gives rise to creativity, a notion which is also central to a primary source of contemporary neo-Darwinian theory, Robert Wesson.

Wesson's theory of mind goes beyond the essentially linear view of evolution embodied in Darwin's original account of descent with modification. It does so by appeal to the notions of chaos and complexity. What emerges is a synthetic view of the embeddedness of human beings in natural evolutionary processes that preserves a margin of autonomy for human behaviour in which creative agency may both express itself and perceive itself to be an extension of 'mind-like' qualities possessed by other, non-human living things. It is a synthesis which appears to provide an adequate response to the Romantic outcry against a purely mechanistic ordering of the world.

The synthesis also provides a scientific grounding for the reuniting of sociological conceptions of mind with those of certain strongly deterministic neo-Darwinian positions. It has been suggested that such a theoretical reunification answers the eco-feminist call for the overcoming of dualistic conceptions of both inter-human and human-nature relations, though in persistently problematic ways.

The 'beyond natural selection' synthesis does not, however, provide an agenda for effective environmental conservation. Whilst it may be understood to provide a coherent conceptual framework within which historically conflicting positions are reconciled, it gives no indication as to how conceptual unity could be translated into consistently environmentally friendly behaviour. It notably leaves out of account the potentially hostile, indifferent or instrumentalist 'leanings' of what may be referred to as 'the urban mind'. In other words, there is no guarantee that in a world increasingly inhabited by city-dwellers, nature will be safeguarded.

From a 'beyond natural selection' perspective, the modernity and sophistication of Wordsworth's conception of mind becomes apparent. It may be appreciated as informing contemporary environmental concern in ways consistent with current evolutionary theory. And it highlights Wordsworth's agreement with Aristotle to the effect that 'Poetry is the most philosophic of all writing' (Taylor 1989, 372). It is contended, however, that to make such poetic truth operative, it may not be enough to rely upon its penetration 'alive into the heart of passion' (Taylor, ibid). Concerted political action will also be required in order to conserve the environment in an increasingly urban world. Greening the cities is presented as a softer option than the harder forms of political coercion that may have to be employed to preserve nature if

'urban minds' cannot 'naturally' evolve responsible and respectful adaptive behaviours as members of the wider community of life.

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Russell Boncey - Ilkley - June 2002

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