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Ecolinguistics and Globalisation

Arran Stibbe

Ecolinguistics provides an important dimension for studies of language and globalisation because it encompasses the globe, or rather the biosphere - the thin outer layer of the planet Earth and its atmosphere in which all known life resides and is supported. The need for an ecolinguistics arises only in distinction to a discipline which seems to have forgotten the ecological embedding of the animal it investigates, treating humans as existing in isolation rather than in relationship with the rest of the biosphere and the diversity of lifeforms within it. This applies as much for structuralist linguistics, with its emphasis on language as an isolated system, as it does for sociolinguistics with its focus on human society, and critical linguistics with its focus on unequal power relationships among humans. In fact, humans would be extremely transient phenomena without interconnections with the biosphere, lasting only a few minutes without drawing in air, a few weeks without water, or a few months without feeding on a diversity of other species.

Few would dispute that language is informed by the physical and biological world that humans find themselves in, and the practical business of surviving in that world. Also, few would dispute that language has an impact on the physical and biological world through all those phenomena that could not exist without it, such as environmental legislation, trade agreements, advertising, market regulation, scientific predictions, or international institutions. Yet only recently have linguists begun to view language as something beyond an isolated system, beyond a socially embedded and socially constructive phenomena, as something which both reflects and has an impact on the larger ecosystems that societies are embedded in and dependant on for their continuing existence.

The reason for the emergence of ecolinguistics at this point in history is partly as a result of advances in human ecology where interconnections and interdependencies between all kinds of systems (including economic systems, social systems, religious systems, cultural systems, linguistic systems, and ecosystems) are being highlighted and explored rather than being sidelined for disciplinary convenience. Partly, though, ecolinguistics is now emerging because the consequences of ignoring the ecological embedding of humans and human societies are becoming starkly clear, as climate change, resource depletion and ecosystem degradation reduce the ability of the Earth to support humans and many other species. All kinds of disciplines are broadening themselves to engage with the reality of the ecological dependence of humanity, from ecological economics to ecofeminism, ecopsychology, ecopoetics, ecocriticism, ecosociology, social ecology, and political ecology, and it is within this general 'ecological turn' that ecolinguistics finds itself.

Together, ecolinguists (and those human ecologists and linguists who do not use the term 'ecolinguistics' but nonetheless analyse language in an ecological context) tell a story about language and life. The storytellers come from a variety of backgrounds and so there are many threads, sometimes compatible and sometimes not, and there are many gaps to be filled in. Nevertheless, this chapter attempts to draw from the literature to bring together some of the threads of the story, revealing

complementarily, exposing contradiction and exploring the role of globalisation within the emerging plot.

One of the unique facets of the human species is, of course, the possession of a sophisticated written and oral language. Another is the ability to single-handedly, as a species, alter the global conditions of the Earth to make it less hospitable for our species and others. What unites the majority of ecolinguists is the suspicion that these two facets of humanity are connected. Halliday (2001: 103), for instance, claims that 'There is a syndrome of grammatical features which conspire...to construe reality in a certain way; and it is a way that is no longer good for our health as a species'. Mühlhäusler (2003:91), similarly writes that 'grammatical constructions have developed in the more recent past that might encourage language habits which have contributed to our present environmental crisis.' Abram (1996:267) claims that 'our organic atonement to the local earth is thwarted by our ever-increasing intercourse with our own signs', which makes us 'so oblivious to the presence of other animals and the earth, that our current lifestyles and activities contribute daily to the destruction of whole ecosystems' (p137). Nettle and Romaine (2000), in discussing the hegemonic spread of monolingualism, write that 'our global village must be truly multicultural and multilingual, or it will not exist at all'. The story that emerges from ecolinguistics is not only that language and ecological destruction are linked, but that globalisation of various kinds plays a central role in linking the two.

The story starts before the invention of writing, when all cultures were oral cultures. Abram's (1996) *The Spell of the Sensuous* describes how with settled oral cultures, languages remain intensely localised, and their vocabulary and grammar responds and reflects the local environment and the human needs for survival within that environment: 'the linguistic patterns of an oral culture remain uniquely responsive, and responsible, to the more-than-human life-world, or bioregion, in which that culture is embedded' (ibid:78). While subpopulations of any species can eventually adapt genetically to suit the environments they find themselves in, the flexibility of human language allows new lexical distinctions, discursive models, and narratives to be created and quickly transmitted within a group, allowing humans to adapt culturally to a great diversity of environments in a way which is much faster than genetic adaptation. Well adapted populations can live in the same place sustainably for hundreds of generations, while populations that cannot adapt will die out, leading to natural selection towards sustainability of settled oral cultures. However, that is not the end of the story, because for many reasons, including sudden environmental change, populations move.

When populations physically move, the new bioregion they find themselves in may be quite different from the one they left, from the one that their language is attuned to. Their language therefore may not have lexical, discursive and narrative resources necessary to live sustainably in the new region (Mühlhäusler 1996). Mühlhäusler (2003:46) uses the metaphor of invasive species to describe this: 'Such languages are exotic in the sense of introducing and not adapting...exotic discourse can contribute significantly to environmental degradation'. And we do see a pattern of environmental degradation when populations move, including waves of extinction of large animals in the wake of human arrival in new regions as long ago as 46,000 years, in Australia, North America, South America, and Pacific islands (Diamond 2005:9, Flannery 1994). Abram (1996: 269) writes that the extinctions in the Americas may have been precipitated by 'a lack of cultural and linguistic patterns tuned to the diverse ecologies of this continent'. In the case of extinctions of large animals, however, it was not just human language and cultures which were badly adapted to

the environment, the animals in the new regions themselves were not adapted to humans, and lacking defences were far more open to over-exploitation (Diamond 2005:9). Mühlhäusler (2003:37) puts the timing at about three hundred years for languages to adapt to new locations (and the locations to adapt to the people), allowing settled groups living sustainably in one place to emerge.

The movement of oral peoples to regions that their language is not attuned to, and the consequent ecological destruction and slow process of re-attunement, can be considered the first wave of ecolinguistically significant globalisation. The second wave occurred with the invention of writing and the enormous changes that happen as oral cultures become transformed into literate cultures. Abram (1996:100) describes how ‘With the invention of the *aleph-beth*, a new distance opens between human culture and the rest of nature...a concerted shift of attention... away from the sensible phenomenon that previously called forth the spoken utterance’. With writing, discourses, stories and models of the reality from one bioregion can travel with great ease to a different region, without the need for whole populations to uproot themselves and physically move. The narratives become fixed by the writing system, unable to change according to changing conditions as orally transmitted narratives can, and the semantic distinctions and values contained in the itinerant written narratives may be entirely inappropriate or irrelevant for sustainable living within the local environmental conditions.

The ease of movement that writing facilities has allowed the languages of a few dominant populations to spread across the world and replace countless local languages (Nettle and Romaine 2000). In this way, languages which encode relationships with local environments die out, and cultures which have lived sustainability in the same place for hundreds of years are lost. The loss of sustainable local cultures and the important ecological knowledge contained within their languages has led to a significant movement within ecolinguistics to protect both cultural diversity and the linguistic diversity that supports it (Terralingua 2008, Nettle and Romaine 2000, Harmon 1996, Mühlhäusler 1995). This movement is in tune with the United Nations Environment Program’s position that

Biodiversity also incorporates human cultural diversity, which can be affected by the same drivers as biodiversity, and which has impacts on the diversity of genes, other species, and ecosystems. (UNEP 2007)

Mühlhäusler (2003:60) describes how ‘The rapid decline in the world’s linguistic diversity thus must be regarded with apprehension by those who perceive the interconnection between linguistic and biological diversity’. Nettle and Romaine (2000:166) write that ‘Delicate tropical environments in particular must be managed with care and skill. It is indigenous peoples who have the relevant practical knowledge, since they have been successfully making a living in them for hundreds of generations. Much of this detailed knowledge about local ecosystems is encoded in indigenous language and rapidly being lost’.

For Abram (1996), written language comes under suspicion not just because it easily becomes out-of-place by being read in a different physical bioregion from the one it was written in, but because of the abstraction away from the concrete that itinerant forms of language tend towards. Halliday (2001:181) examines the nature of written language in detail, describing how the grammar itself is very different from the grammar of oral languages. With writing, ‘Social relations are transformed into institutions...the main source of *abstract* meaning seems to shift from the

interpersonal to the ideational...from processes to things'. This leads to a situation where 'the nominalising, metaphorical grammar of late twentieth century prestige varieties of English has become dysfunctional...it construes the world after a fashion which...has now become excessively abstract, objectifying and determinate' (p191).

Abstraction occurs not only in generalisation away from specific aspects of reality, but in the creation of symbolic realities which exist primarily within the world of words and have little or no connection with the larger reality. Suspicion of the mismatch between language and the world is certainly not something new - Grigg (1994:191) describes the belief both in Taoism and Zen Buddhism that 'The world of suchness does not correspond to any conceptual model expressed or invented by words' and that 'Language, like pure intellect, moves experience inexorably into the abstract, away from the finality of grounded reality' (p196). The question for ecolinguistics is what, specifically, is it about the abstraction of language and the realities it creates that is implicated in ecological destruction?

Halliday (2001: 103) investigates aspects of grammar which he claims 'conspire...to construe reality in a certain way...that is no longer good for our health as a species.' The first aspect he describes is that mass nouns like soil and water are unbounded and do not therefore reflect the limited supply of such essential resources; the second is that antonymic pairs have a positive (unmarked) pole which means that 'bigger' is aligned with 'better'; the third is that humans tend to be given more agency in grammar than other species; the fourth is that pronoun use and mental processes divide the world falsely into conscious beings (humans and to some extent their pets) and non-conscious beings (other species). Chalwa (1991:262) likewise claims that 'the language habits of fragmenting the mass, quantifying intangibles and imaginary nouns, and perceiving time in terms of past, present and future are factors in our inability to perceive the natural environment holistically'.

Goatly (1996) too focuses on the level of grammar and argues that modern scientific theory demands a grammar which does not simplistically separate out agentive participants, affected participants and circumstances, since this is out of step with the radical interconnectedness of the world that modern science reveals. For instance, he rejects the simplistic cause and effect patterning of agent and affected, because agents are also affected by their actions, so in driving a car, the driver is not only the agentive participant, but also the affected participant - affected by the pollution and climate change he or she is contributing to. He therefore argues against Halliday and others who criticise nominalisations such as *pollution* for disguising the agent. Clearly agency is more complex than can be expressed in language: does sulphur dioxide pollute? or do factories which produce sulphur dioxide pollute? or do consumers who buy the products pollute? or do the social systems which manufacture demand for the products pollute? Schleppegrell (2001:228) correctly argues that 'Diffusing agency to all individuals or people in general is a misrepresentation of the real causes of environmental problems', but clearly language cannot represent the deep complexity of the 'real causes' within its basic grammatical structure. Language can, however, represent causality in units which go beyond single grammatical features - discourses which combine various features together to produce particular representations of reality (van Dijk 1993).

Discourses are central to the third wave of ecolinguistically significant globalisation. The first wave consisted of physical movement of oral peoples, the second to the movements of written texts and the spread of dominant languages it occasioned, and the third consists of the more recent large scale translinguistic spread of particular discourses. Fairclough provides an excellent example of this, by looking

at a statement by a Romanian minister and noticing the use of terms *outsourcingul* (outsourcing), *competitia* (competition), *satul global* (global village), *strategie, marketing, branding, competitie globala* (global competition). The discourse of neoliberalism represented here is hegemonic in the sense of being associated with powerful transnational institutions which have unequal access to forms of mass dissemination such as the media and educational institutions. The discourses can therefore spread across the world, although this is not an entirely one way process. As Fairclough (2006:4) points out, not only are discourses influenced on arrival by the local social and historical context, counter discourses also arise and compete with the hegemonic discourses.

The hegemonic spread of discourses is problematic from an ecolinguistic perspective partly because the environmentally attuned discourses which form the basis of local cultures are not represented in the education system or media and so may be displaced by the more powerful incoming discourses. More importantly, however, there may be aspects to particular hegemonic discourses which directly contribute to ecologically destructive behaviour. The discourse of neoliberalism, for example, has been criticised for representing globalisation, trade liberalisation, and international competitiveness as an inevitable and unstoppable phenomena to which other things (such as worker's rights and the environment) must be sacrificed (Fairclough 2006). The following extract provides an example of how neoliberal discourse is used to justify the sacrifice of the environment. The following statement is made by a pilot in support of a third runway at Heathrow:

As an environmentalist, I believe that we will solve nothing by asking the majority of people to suffer the loss of a leisure activity they enjoy, and business will not curtail an activity vital for it to succeed in a progressively more globalised marketplace. (Chalk 2008)

In this extract, the inevitability and unavoidability of the 'progressively globalised marketplace' is simply presupposed, and 'succeed' clearly fits the neoliberal representation of success in purely financial terms. The agent of process of 'curtailing' is the businesses themselves, as if there was no possibility of government stepping in and curtailing the excesses of business.

Among the discourses which have been criticised for their potential negative impact on ecosystems when spread on a global scale are: discursive constructions of neoclassical economics (Stibbe 2005b), consumerism (Slater 2007), development (Sachs 1992), progress (Mühlhäusler 2003:110), intensive agriculture (Stibbe 2003), masculinity (Stibbe 2004), and advertising (Williams 2007, Gargan 2007). Coupland and Coupland (1997:7) suggest a 'competing discourses' formulation for ecolinguistics, noting how environmental discourses of ozone depletion are reformulated in media texts in terms of hedonistic summer leisure or ascetic body culture. Gössling and Peeters (2007) show how a range of discourses are employed by airlines to justify expansion in flying, including ones centring around the energy efficiency of the airline sector as a whole, social and economic benefits, and technology progress. Goatly (2000) proposes an 'ecological critical discourse analysis', and provides an example by conducting an analysis of the discursive construction of nature in a typical broadsheet newspaper compared to that by Wordsworth. His conclusion is that 'the view of the natural world represented by Wordsworth, along with aspects of his grammar, provides a much better model for our survival than that represented by *The Times*' (p201).

Usefully, Fairclough analyses discourses in terms of ‘practical adequacy’, which he defines as ‘whether they are reliable guides to action, whether what they suggest or imply about what will happen if we act in certain ways actually *does* happen’(p5). He states that ‘Certain discourses (which arguably include...neo-liberal economic discourse) which can be shown to be *not* adequate for real processes, which lack ‘practical adequacy’, can also be shown to be used to create and sustain unjust or undemocratic positions and relations of power’ (5). Fairclough’s work is, in general, based on a form of neo-Marxist social theory which has ‘ignored nature and the environment’ (Biersack 2006), focusing on relationships of inequality without consideration of the ecological conditions which support or undermine people’s lives, and which power operates on and through. From an ecolinguistic perspective, then, it would be possible to add to Fairclough’s statement above that certain discourses which lack practical adequacy also undermine the ecological basis of society, with oppressed groups being the first to suffer the consequences. A typical example would be consumerist discourses which imply that happiness or spiritual wellbeing will arise out of materialist accumulation of unnecessary goods. Such discourses are practically inadequate since long lasting spiritual wellbeing is unlikely occur, sustain unjust relations of power, *and* undermine the ecological basis of society by encouraging over-consumption of natural resources and overproduction of waste, which has negative consequences for all, starting most strongly with groups who have the least power.

Although it is arguably discourses such as those of progress, consumerism, neoliberalism, and classical economics which have the greatest potential impact on ecological systems, the discourse which has received most attention from ecolinguistics that of environmentalism (Nygren 1998, Haig 2001, Väliverronen 1998, Väliverronen and Hellsten 2002, Stibbe 2005a, Stibbe 2005c, Pickett and Cadenasso 2001, Stott and Sullivan 2000, Stamou and Paraskevopoulos 2004, Mühlhäusler 2003, Penman 2001). An early attempt at analysing environmental discourse is Harré et al’s (1999) book *Greenspeak: a study of environmental discourse*, which described both internal and external aspects of the globalisation of environmental discourse, or the ‘globalisation of Greenspeak’ as they put it (p12).

The first, internal aspect, consists of a shift within environmental discourse itself towards representing environmental problems as global problems rather than issues related to the people’s immediate environment. The shift consists of changes to ‘linguistic expressions and photographic, cinematic and graphic representations’ (Harré et al 1999 12), such as the lexicalisations ‘global thinking’, ‘spaceship Earth’, ‘One World’ or the iconic ‘blue planet’ photograph. The internal construction of the emergent discourse of the environment has been criticised from a variety of perspectives.

Harré et al (1999) claim that ‘There is a fundamental mismatch between the problems to be tackled and the linguistic resources for dealing with them’ (p178). They describe the mismatch in terms of *referential adequacy* (e.g., the lack of a word meaning ‘not biodegradable’, p31), *systematic adequacy* (e.g., SAE languages do not encode time-related changes in their grammar, p34), *social adequacy* (e.g., the undesirable proximity of ‘population control’ to ‘pest control’, p35), *semantic vagueness* (of terms like pollution or progress, p29), *semantic underdifferentiation* (e.g., of *growth* since it refers to both natural growth, exponential growth and other forms of growth, p29), and *misleading encoding* (e.g., fertilizers can render soils infertile, p29). Others who have taken up this approach include Penman (2001:148) who analysed the term ‘sustainability’ using the notion of referential adequacy,

concluding that it is ‘semantically vague and semantically undifferentiated, meaning many different things to many different people’.

There have been a number of analyses of the use of metaphors in environmental discourse (Väliavironen 1998, Pickett and Cadenasso 2002, Väliavironen and Hellsten 2002, Stibbe 2008), both as ‘boundary objects’ necessary for conveying understanding of complex issues rapidly among diverse groups, and across languages, and as oversimplified models of reality which highlight some aspects while hiding others. Stibbe (2008), for instance, criticises the metaphor of ‘biodiversity as a library of species which is burning down’, for promoting a tokenistic approach where only one or two specimens of species (copies of a book) need to be preserved, and for placing humans outside the library as unharmed spectators. On the other hand, the metaphor of biodiversity loss as the unravelling of the web of life, places humans within the web, emphasising that disintegration of the web (loss of biodiversity) has an impact on human survival. In a different direction, Carolan (2006) describes metaphors within environmental sciences such as ‘ecosystem health’, ‘ecosystem integrity’, ‘restoration’, ‘invasive species’, ‘alien species’, ‘fragmentation’ as problematic because with them ‘we find values creeping into our discussions of ecology’ (p925), whereas ‘science does not (or at least should not) prescribe’ (929).

In contrast to Carolan (2006), mainstream environmental discourse has been criticised precisely for its lack of values, in particular, its tendency to discuss the great diversity of lifeforms that inhabit the Earth as resources of value only for human exploitation. Stibbe (2006) describes how the influential Millennium Ecosystem Assessment (MEA) ‘recognizes that the actions people take that influence ecosystems result not just from concern about human wellbeing but also from considerations of the intrinsic value of species and ecosystems’ while simultaneously representing species and ecosystems within the same report as if they were entirely worthless in and of themselves. Looking at the case of the representation of fish in particular, Stibbe (2006) describes a syndrome of features in the discourse of the MEA which represent fish in ways that conspire together to deny them intrinsic worth. These features include a) the affected participant of processes of *harming* being exclusively human or human related, b) the word *fishery* appearing more often than *fish* c) metaphors of harvesting and stock depletion being applied to fish d) euphemisms such as ‘removed’, ‘caught’, ‘captured’, ‘landed’ or ‘eliminated’ being used rather than ‘killed’ or ‘died’ e) the complete lack of agency of fish across processes in all clauses f) the embedding of the word *fish* in noun phrases such as ‘fish stocks’, ‘fish supplies’ or ‘quantity of fish’ rather than as direct participants in processes. This is contrasted with the influential writing of Rachel Carson, which generated tremendous support for the environment movement in the 1960s when it was starting out (Waddell 2000). Carson (1962:122), for instance, writes ‘For thousands upon thousands of years the salmon have known and followed these threads of fresh water that lead them back to the rivers’, representing fish as agents of material and mental processes, and ‘Dead and dying fish, including many young salmon, were found along the banks of the stream...All the life of the stream was stilled’ which avoids euphemisms and represents the death of the fish as something negative in itself. Stibbe (2005a, 2005c) provides further evidence that current mainstream environmental discourse, unlike Carson’s writings, often fails to tap into the motivating power of people’s concern to protect ecosystems for the sake of all those whose lives are supported by them.

The second, external, aspect of the globalisation of environmental discourse described by Harré et al (1993: 16) is the way that the discourse as a whole spreads

across the world through transnational documents like the MEA described above, and high-profile events such as the Earth Summit in Rio, which led to unprecedented levels of 'global attention, perception and affirmation...in other words the globalization of the discourse'. The hegemonic spread of environmental discourse across the world is problematised within a strand of the recently emerging transdisciplinary *Political Ecology* associated primarily with Phillip Stott. Although Stott is a controversial figure associated with the discredited *Great Global Warming Scandal*, the general approach put forward in the edited collection *Political Ecology: Science, Myth and Power* (Stott and Sullivan 2000) is a form of ecolinguistic study of globalization. Stott and Sullivan bring together 'a collection of observations and analyses regarding the creation, legitimisation and contestation of environmental narratives that draw their power by using the 'Big Talk' of a reified science' (p1). By Big Talk, the authors mean 'important, male, metonymic, serious, official, correct, objective and emphatic' (p1), echoing some of Halliday's criticisms of reifying scientific discourse. Sullivan (2000) looks at how the concept of 'desertification' used in and about Namibia, is part of a global discourse which clashes with actual local facts on the ground. The arrival of the global discourse 'occluded local narratives and wider ecological theorising' (p15), blamed local 'misuse of resources' for ecological problems (p17) and socialised 'young Namibians to view the land-use practices of their communal area country-folk as environmentally degrading' (p20). Overall, Stott and Sullivan (2000) ask 'What is the potential for challenging the status quo, particularly in light of the processes of globalisation?', and attempt to do so by enabling 'alternative voices to be heard; that is, to release the 'excluded voices' of Michael Foucault' (p5).

One of the most influential channels through which environmental discourse spreads around the world is through environmental education. While environmental education plays an essential role in bringing attention to global environmental issues which are not locally discernable, it tends to be heavily based on written materials supplied from the centres of power and distributed outwards to local communities. This means that it lacks the power to inspire specific solutions which are in tune with the local bioregion and the culture within it. And worse than that, environmental education has the potential to be a Trojan horse for spreading the values which lead to environmental destruction in the first place. Bowers (2001:141) argues that:

...in many instances, environmental education contributes to the double bind of helping to address environmental problems while at the same time reinforcing the use of the language/thought patterns that underlie the digital phase of the Industrial Revolution we are now entering on a global scale

In a case study of this phenomenon, Stibbe (2005c) analyses twenty six environmental education textbooks written in English by UK and US authors and used in Japanese Universities. The analysis reveals that while ostensibly teaching about environmental issues, the discourses conveyed consumerist attitudes, anthropocentrism, reductionist views of natural systems, attributed blame for environmental problems such as deforestation to local populations rather than first world over-consumption, and presented technological fixes as the primary or only solution to environmental problems. In other words, while attempting to solve environmental problems, the textbooks were exporting values and ideas which have been implicated in causing the problems in the first place. As an example, a textbook entitled *Make it or Break it:*

The future of our Environment describes the problem of car pollution using discourse which could have come from a car advertisement:

Simply stated, cars offer fun and freedom. When we get behind the wheel and get on the road, we can flee the monotony of daily life...even if we are forced to spend most of our time sitting in traffic jams, the allure of the automobile is its promise of escape (Evenoff et al 1999)

In many of the textbooks, language is used to represent lifeforms other than humans in ways which deny intrinsic value. The following example is from the textbook *Ten Minute Ecologist*:

Much of what humans do with their biological resources - including...species harvested from natural populations - depends on our having an accurate inventory of life on Earth (Janovy 1997:13)

This example uses pronouns in ways which make all species in the world appear to be human possessions. It uses instrumental metaphors which represent other life forms as resources, wild animals and plants as crops, and species as inventory items. This is in sharp contrast with discourses of traditional Japanese culture, such as the discourse of Haiku, which conveys positive regard, empathy and a sense of identity with even the most ordinary of animals and plants (Stibbe 2007). While not all discourses of traditional Japanese culture necessarily contribute to sustainability, there are discourses which encourage a deep respect for nature, make modesty and simplicity a virtue, represent wasting food as a waste of life, and express gratitude to other species for giving up their lives for humans. It is therefore conceivable to have an environmental education where students draw on discourses from their traditional culture and put them in dialogue with western environmental discourse for the benefit of both.

In summary, then, the world is currently on an unsustainable path potentially leading to ecological collapse on an unknown scale (Diamond 2005), and ecolinguists have investigated a number of language related factors which are claimed to have contributed to this unsustainable trajectory. These include the mismatch between language and environment that occurs when oral peoples move to new locations, the easy movement of written language to bioregions and localities it was not created in, the abstraction of written language, the obscuring of complex relations of causality by simplifying the world into discrete participants by grammar in general, specific features of grammar such as the reification that occurs in nominalization, by powerful hegemonic discourses of consumerism, neoliberalism, progress etc which model reality in ways which disregard natural limits, and through the discourse of environmentalism which represents an important but ultimately inadequate response to the global situation.

The question is, what can ecolinguistics as a sub-discipline, or meta-discipline, or part of the larger ecological 'turn' of both academia and society, do to contribute towards the quest for a more sustainable world? The question arises from the nature of ecolinguistics, which, like medical science, is a goal-orientated activity rather than a purely exploratory science.

Halliday (2001) gives a pessimistic comment about the power of ecolinguistics to addressing sustainability issues, primarily because his analysis focuses on the level of the general grammar of languages. He writes 'I do not think even the language professionals of AILA can plan the inner layers of grammar'. To take one example,

Halliday is concerned that as the unmarked pole of the pair growth/shrinkage, the word 'growth' is intrinsically positive, and the idea that the economy must shrink, or that 'economic shrinkage is good' is just not going to catch on. He considers terms such as 'negative shrinkage' or 'elephantitis' (as alternatives for growth), and 'zero growth' or 'negative growth' (as a goal), but rejects these unpromising alternatives (p.193). Clearly, in this case, ecolinguists cannot intervene on the level of grammar and change 'shrink' into the unmarked, positive member of the pair.

Halliday's analysis, however, is limited. A more realistic approach would be to recognise that the term 'growth' is part of an economic discourse which models reality in a particular way, and look for whole alternative models/discourses which have greater practical adequacy. The New Economics Foundation, for example, points out that growth in GDP beyond a certain level does not correspond with increases in wellbeing, and so replace the inadequate proxy, growth, with the end itself, wellbeing. This leads to a discourse where the maximisation of wellbeing, rather than growth, is the goal and includes terms such as wellbeing indicators, Gross National Happiness and Happy Planet Index.

So, rather than trying to alter the grammar of the English language by changing the marking of the term 'growth', it is far easier just to stop talking about growth, because it is not a measure of anything important, and instead start talking about something like wellbeing. This has already occurred with the term 'balance of trade deficit', which used to be used extensively in government circles and right across the media but has virtually been dropped because economists cannot agree whether it measures anything important or not. The discourse surrounding economic growth could similarly be dropped and replaced with a discourse of 'wellbeing'. Interestingly, David Cameron, leader of the Conservative Party seems to have already taken up the discourse of wellbeing: 'Well-being can't be measured by money or traded in markets. It's about the beauty of our surroundings, the quality of our culture, and, above all, the strength of our relationships' (Cameron in Brown 2007).

Harré et al (1999) suggest intervention at a variety of levels in a process they call 'language planning'. At a lexical level, the language planning advocated consists of the replacement of lists of terms to give greater referential adequacy. For instance, their 'proposed alternative' to the term *clearing* is *native vegetation removal* and the proposed alternative to *greenhouse effect* is *human induced climatic dislocation* (p28). It also consists of inventing new words such as one meaning 'not biodegradable', one meaning 'a special refuse container for recyclable goods', and one for 'the needless transshipping of commodities to places where they are freely available', for which they suggest 'to Newcastle' (p31). In general, Harré et al believe that, if, through language planning, language can be made 'referentially, systematically and socially adequate, it is...likely to be environmentally adequate' (p42). Carolan (2006:928) takes a similar approach, arguing that 'Language planning would thus involve taking words that invite vague associations and/or that are laden with normative assumptions and replacing them with terms that more closely capture their nonlinguistic correlate' (Carolan 928).

Needless to say, the language planning approach leaves itself open to accusations of 'ecological correctness'. In reviewing Harré et al's work, Smith (1999) points out that 'There is something rather Orwellian about the concept of 'language planning' which sometimes imparts a managerial overtone to their agenda. Just who is to determine what language is appropriate...?' It does seem somewhat naive to assume that terms like 'human induced climatic dislocation' are likely to inspire people to take action just because some linguists have declared that they are at the correct level

of semantic differentiation and are not misleadingly encoded. In fact, the influential *Ecolinguistics Reader* (Fill and Mühlhäusler 2001) later contained the clear statement that 'The idea of an 'ecological correctness' is rejected by all authors' (p45), and, in general, piecemeal and obvious attempts to replace individual terms with more correct ones have been abandoned.

A more holistic approach is to make critiques of influential discourses available to those who produce them, showing what features are suspected to encourage unsustainability, and providing examples of actual alternative discourses which represent reality in other ways. As an example, the ecolinguistic analysis of the Millennium Ecosystem Assessment discussed above was presented to its authors, and received the following response from one of the leaders of the project:

[this ecolinguistic research] is extremely interesting. I very much appreciate this type of analysis and also think that your conclusions are quite correct. There is no question but that we framed the assessment in extremely anthropocentric terms [and this]...has costs in devaluing the intrinsic worth of species as you note. For the audience we were aiming at, that cost was worth paying in my view but ideally in the future assessments might be able to provide a better balance here.

And in terms of providing a better balance, the ecolinguistic report sent to the MEA included analysis of the linguistic features of Rachel Carson's discourse, giving ideas for effectively conveying the value of the natural world without using clumsy expressions such as 'intrinsic worth'. This is just one small example, but there are whole subdisciplines such as *Environmental Rhetoric*, *Environmental Communication*, and *Ecocomposition* which (among other things) analyse whole discourses in the search for effective ways to inspire people to lead their lives, businesses and societies in more sustainable ways (Coppola and Karis 2000, Dobrin and Weisser 2002, Herndl and Brown 1996, Owens 2001, Killingsworth 2005, Waddell 2000).

Perhaps the clearest example of effective application of ecolinguistic analysis can be found in the work of someone who would not claim to be an ecolinguist at all. Vandana Shiva is a physicist, environmental activist, and one of the leading voices in resisting the socially and ecological destructive aspects of globalisation. Shiva's work is based on the following position:

The global free trade economy has become a threat to sustainability and the very survival of the poor...in a systematic way through a restructuring of our worldview at the most fundamental level (in Alexander 2003:6)

In looking at the influence of the forces of globalisation on restructuring worldviews, Shiva is operating at the level of discourse. Alexander (2003:9) writes that

in Shiva's work we encounter semantic analysis as well as objective political and scientific reasoning...[she] manifests a critical capacity to see through language employed in industrial and commercial agriculture [uncovering] the ideologies and values which specific terminological or lexical choices make

Shiva's goal is to expose and criticise hegemonic global discourses and replace them with ones that serve the agenda of 'sustainability, sharing and survival'. To give just one example, she states that 'When patents are granted for seeds and plants, as in the

case of basmati, theft is defined as creation, and saving and sharing seed is defined as theft of intellectual property' (in Alexander 2003:12).

Shiva stays directly in touch with the reality of the social and environmental impact that neoliberal discursive constructions of reality have on the most exploited people and environments in the third world, challenges those constructions in the first world countries they originate from, and offers alternatives that are in tune with the values and practices of the people who are being exploited. Although Shiva's actual analysis of discourse is limited, her work shows the potential for an engaged form of ecolinguistics in a global context which could use detailed and systematic analyses of hegemonic discourses and their alternatives as a basis for effective environmental communication.

A final point to make about ecolinguistic analysis is that, as Harris (2001:154) puts it 'Any linguistic critique of environmental discourse will ultimately lack force unless it is clear on what theoretical assumptions the critique itself is based. Otherwise, the objections will appear *ad hoc*...' (Harris:154). While the broader area of ecology itself involves a philosophical struggle among the perspectives of social ecology, deep ecology, political ecology, human ecology, ecofeminism, and environmentalism, ecolinguists often remain sheltered from the storm, making judgements about what kind of language contributes to ecological destruction on linguistic grounds such as 'semantic vagueness' without being clear what model of ecology, model of the world, or actual aspects of the world the judgements relate to. Nettle and Romaine (2000) feel that ecolinguistics could do harm if 'putting our current environmental and human crisis down to the way of discourse works means we end up...picking away self-referentially at discourse, and not thinking about important material factors like land ownership, pollution, population growth...which are the factors indigenous peoples on the ground experience' (p465).

This chapter has looked at the role of globalisation of various forms in linking two of the unique characteristics of humanity: its ability to use language and its ability to make the world less hospitable for itself and other species. Ecolinguistics is in an interesting position, being predominantly an abstract, written form of discourse which is diffused from the 'centre', making it one of the discourses that it criticises. There is something ironic about Halliday's claim that the 'grammar of late twentieth century prestige varieties of English has become dysfunctional...become excessively abstract, objectifying and determinate' since Halliday's own writing is a prime example of what he criticises. David Abram, perhaps more than any other ecolinguist, goes beyond critiquing the abstraction and rootlessness of written language to incorporating an alternative form of discourse into his own writing. The following quotation both explains why and illustrates the way that Abram uses language to in ways which bring his writing literally 'back to Earth':

there can be no question of simply abandoning literacy, of turning away from all writing. Our task, rather, is that of *taking up* the written word, with all of its potency, and patiently, carefully, writing language back into the land. Our craft is that of releasing the budded, earthy intelligence of our words, freeing them to respond to the speech of the things themselves - to the green uttering-forth of leaves from the spring branches. (Abram 1996:273)

Few ecolinguists have followed, or can follow Abram, partly due to their own inability to write in alternative styles, and partly because the majority of academic forums will only accept writing that is dry, technical and keeps its values suppressed.

The redeeming feature of the discourse of ecolinguistics, though, is its self-reflection, since it is well aware of the dangers of over-abstraction and rootlessness, so is in a position to use the authority of abstract academic language to examine the dangers of hegemonic discourses such as its own, and point beyond itself to call for a revaluing of local languages, oral communication, discourses which are more responsive to and responsible to the ecosystems that support life, and a revaluing of the complex sensual reality that lies beyond discourse.

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