1 · *The Experience of Nature*

1.1 Perspectives on the Meaning and Significance of Nature

Why Conserve Nature?

Why do we[1] want to keep anything? Surely it is because it means something to us? Isn't it because we value qualities like usefulness and the ways in which we can cherish memories and meaningful associations? We may keep things which make life easier, help us in day-to-day living and might assist us in some future difficult time. We may also value those things with enriching associations – something we found on a memorable day; something which appealed to us for its form and beauty, its intricacy, diversity or simplicity; something inherited from an ancestor or given to us by a friend or parent. Or it can be something we did not know about but which we found out about in the media or which a teacher, parent or mentor told us was rare, valuable, a privilege to have. Thus, the meaning can be discovered by yourself or a meaning can be given to you by someone else which then becomes significant to you. Whatever the many reasons for keeping something, it is the value and the meanings which make us cherish it: the meanings vary widely, but meanings there have to be. Hence the subtitle of the book: *Perspectives on Meanings and Motivations*. Meanings are the key.

[1] When I use the word 'we' or 'our' in a text, critics and reviewers often rightly ask 'who is this we you are referring to – which society or group of people? Do you purport to speak for all of them and are you speaking with their endorsement?' This is highly relevant in particular contexts but there is a clear distinction between statements of opinion which can be contested such as 'we need to spend money on our own problems rather than those of others', where all the questions posed above are germane, and those which actually do speak for the whole of humanity without the need for further contextualisation, such as 'we need oxygen to breathe' and 'the evidence suggests that we evolved about two million years ago in Africa'. Thus, when I use the term 'we' the intention is to make reference to humanity – the human animal – in the context of the human relationship with nature. Any differentiation between particular sections, groups, societies or cultures of humanity will be indicated. In other places in the book, reference to the reader as in: 'we have already seen in an earlier chapter. . .' should be clear by context.

https://doi.org/10.1017/9781108961059.004 Published online by Cambridge University Press

The very act of asking the question: 'Why conserve nature?' indicates that there can't be one universally agreed positive meaning of nature which motivates people to cherish it. Surely if nature meant something good to everyone – something significant, something valued – then people would all act to conserve nature and this book would not be needed. However, the view that conservation is needed is one that is not universally shared, despite all the exhortations which abound in scientific writings and the media. One person's idea of utility might be another person's idea of irrelevance; even if others seek to tell them that something is useful and with meaningful associations. One person's meaningful associations might be another's indifference if nature has no meaningful association for them. So, the interesting question might equally be: 'Why don't people conserve nature?' The answer must lie, if we follow the thread of the argument so far, in that a lack of personal meaning and significance means there is no sense of value and no motivation to cherish. Is this the case, and if it is, why should this be so? Is it that people don't see nature as useful? Is it that they have no associations with it? Is it just irrelevant, or at least not an important consideration for people? Are the meanings of nature too many and too complex? Do conservationists fail to get their point of view across? Or is it that people actually agree that nature should be conserved but they don't have – or feel they have – the means to do it?

One aspect of this discussion is that conservation could be made more engaging by heeding the approach of those who say that an answer lies in meaningful stories about practical situations and involving people in positive outcomes. There is a quotation attributed to Samuel Johnson (1709–1784, most well known for his dictionary of the English language): "Nothing has more retarded the advancement of learning than the disposition of vulgar minds to ridicule and vilify what they cannot comprehend." This starkly condescending condemnation, I would stand on its head. Rather than a failure of people to grasp the situation, maybe any failure to comprehend lies in a failure to involve people in a meaningful and relevant way. While telling, showing and demonstrating are important, it is finding your own meaning through being involved which is always more effective.

Organisations such as Action for Conservation (AFC) stand out in this sense (www.actionforconservation.org/about-us). AFC believes that all young people should feel moved and empowered to protect the natural world. It feels that if children and young people lose contact and involvement with nature, they are less likely to fight to protect it as

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they grow older. AFC's egalitarian belief is that a passion for conservation can flow through anyone's life. It has five core values that define its approach to creating the next generation of conservationists: Diversity, Wonder, Hope, Action and Change. It aims to effect this by creating a sense of wonder and fostering ongoing engagement through stories of hope and through direct involvement with nature. The importance of childhood experiences is emphasised by many studies, for example Daitch et al. (1996) and Vining (2003). Chawla (1999) found childhood experiences to be far more effective in formulating a positive attitude to effective environmental action later in life than the other subsequent experiences investigated. Significantly, such childhood experiences are now seen as lacking, with the media meme derived from surveys that 'prisoners now spend more time outdoors than children' and Louv (2005) lamenting the idea of the *Last Child in the Woods* in the title of his book and promoting the idea of positive childhood nature experiences in *Saving Our Children from Nature-Deficit Disorder* in the subtitle.

Involving people in nature means that there can be a more effective position of being able to argue that if we progressively lose nature, we then lose something of ourselves – mentally, emotionally, spiritually – and indeed, if we make conditions untenable for ourselves, maybe even physically. We can thus see that with nature there can indeed be aspects of utility and of having something inherited and given to us. We can also realise that meaning and significance can vary widely with the observer, the context and the situation – and indeed be highly contested – as well as realising that some people are just indifferent. Hence, the discussion in this book is justifiably about the way in which knowledge, attitudes, values and beliefs interact in cultural contexts to influence the connections between meanings, motivations and actions in nature conservation. This has to be both positive and negative about conservation – the reasons why people don't care are as important as the reasons why people should.

So, this is not a book on how and what precisely to conserve – there are many other books in this Cambridge University Press *Ecology, Biodiversity and Conservation* series which discuss these topics. In this volume the discussion is on the ways in which the meanings of nature matter for motivating us to conserve nature at all. The key proposition is that without meanings, we have no motivation. Botanist and ancient woodland expert Oliver Rackham (1991) promoted this idea when he wrote on 'Landscape and the conservation of meaning', discussing how we can cherish meanings which have evolved over time and are still evolving.

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Thus, we focus in this book on the connections between the varied and diverse meanings of nature, the origins of motivations to cherish it and the taking of actions to conserve it. We also have to think what we include when we use the term 'nature'. This includes life forms and the environments in which they live and involves the consideration of the status of the actual life forms themselves and the dynamic processes and interactions between the life forms and between them and their environment. We find that the meanings are a complex fusion of scientific knowledge, pervasive myths, psychological perceptions and cultural contexts.

The scientific knowledge we have about plants, animals and environment is fundamental to giving us a set of ideas and associated values about how nature works and is thus essential to the conservation endeavour. However, this knowledge is produced by a society which holds a set of cultural values and, equally, any proposed action is nested within the context of that society and its values. Writing in *On the Future*, Astronomer Royal Martin Rees (2018: 227) concludes that, "Now is the time for an optimistic vision of life's destiny …. We need to think globally … rationally … long term – empowered by twenty-first-century technology but guided by values that science alone can't provide." So, while the knowledge is necessary, it is not sufficient. We have to understand that it is the cultural concepts of meaning and significance in relation to our emotions which actually lead to our actions involving nature.

There is a popular quote from Gus Speth, US Advisor on Climate Change, which is often cited as:

> I used to think that top environmental problems were biodiversity loss, ecosystem collapse and climate change. I thought that thirty years of good science could address these problems. I was wrong. The top environmental problems are selfishness, greed and apathy, and to deal with these we need a cultural and spiritual transformation. And we scientists don't know how to do that. (variously sourced, e.g. https://ncipl.org/environmental-crisis-not-environmental-spiritual)

This quote has been taken up by some as meaning that science doesn't have the answers but that a more spiritual approach does. To believe that, however, would be as limiting as the converse belief that as soon as science has a solution, then the problem is solved. Neither is true. Without science and technology we have difficulties proposing a viable solution but without due regard to cultural contexts – including psychological, economic, social and political factors – we have difficulties in

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implementing a solution. It should also be realised that scientific knowledge itself is produced in cultural contexts and is not value free in the way questions are framed, investigations formulated and answers derived. Many scientists are indeed aware of these contexts – and also many would find Speth's assertion somewhat pejorative in that they are indeed culturally and spiritually aware. The book edited by Brian Moss and Otto Kinne (2012): *Liberation Ecology: The reconciliation of natural and human cultures* springs to mind here as one example of the science–culture awareness.

Another notable milestone on this road to a wider view is to be found in a special issue of the 2018 journal *Methods in Ecology and Evolution* on qualitative methods for ecologists and conservation scientists, led by Sutherland et al. (2018). They use the self-evident though often ignored wisdom that "conservation of biodiversity involves dealing with problems caused by humans, by applying solutions that comprise actions by humans" (p. 7). They add: "Understanding human attitudes, knowledge and behaviour are thus central to conservation research and practice." There are papers from a range of disciplines (ecology, human geography, political science, land economy, management) and the authors feel that the ways forward involve "incorporating human values, perceptions, judgements and knowledge into conservation decision making". Of particular significance in the volume is the paper by Moon et al. (2019) on expanding the role of social science in conservation through an engagement with philosophy, methodology and methods.

Additionally, lack of conservation action is not just about "selfishness, greed and apathy", as above, it can also be about poverty and survival. Jane Goodall, the primatologist well known for her work on chimpanzees, expresses the situation well in an interview for *Deutsche Welle* (Baker, 2019). While the interview is entitled: '"The biggest problem is greed" says conservationist Jane Goodall', this, I submit, is not her key message. When asked "Why do you think it is that some aren't moved to take action to protect the environment?" she indeed replied, "The biggest problem is greed." However, more tellingly, while making reference to corporate greed, she went on to make her insightful observation on poverty and survival.

The interview focussed on the link she had made between connecting social justice with conservation efforts. She said how she learnt of poverty, the lack of good health and education and the destruction of the environment. The quote from her is: "Because when you're very poor, you cut down the last trees to try and desperately grow some more food or make

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charcoal." She recalled how in 1990 she flew over what had been a great equatorial forest to see that Gombe National Park was now "just a tiny island forest surrounded by completely bare hills and people were struggling to survive. That's when I realized if we don't help the people to find other ways of living than destroying the environment, then we can't even try to help the chimps." She then went on to engage people in simultaneously aiding the conservation effort and making a living – not only without cutting down further forest but also protecting the remaining forest and its wildlife. This theme is, for example, very much central to the discussions by Stocking, Perkin and Brown (2014) in 'Co-existing with nature in a developing world', a chapter in the key book edited by Morse and Stocking, *People and Nature: Development for the future*. People are seen as part of the solution rather than part of the problem. But there has to be some impetus – some leadership and structure – to make this possible, and to ensure that for the people involved conservation is not part of their problem but becomes a solution.

In this context, recently Ngwenya et al. (2020) have usefully made 'A call for collective crisis leadership': "To scale up conservation efforts ... we need an inclusive, enabling approach involving everyone – from health and finance ministers to Indigenous Nations, grassroots organizations, NGOs, businesses and heads of state" (p. 432). They continue that, as conservationists, "Standing alone, we are being set up to fail .... Collectively, we must deal with the root causes of environmental crises. Only then will we see transformational change unfolding, perhaps with more ease than we ever imagined."

An additional point on motivation which can be usefully noted here is that Jane Goodall also said that she does not believe in aggressive activism, as explained in an interview on the power of reaching people's hearts (Hirsh, 2015). What she feels is that the way to get people motivated is through the emotions as revealed in stories. This is not the same as 'being emotional' but that something moves us – it has meaning. "With storytelling, you have to get to people's hearts. It's not about engaging them intellectually" (Shea, 2015). She feels that the trick to helping people understand that we can all make a difference is pretty simple: telling stories (Figure 1.1).

She said: "If you [get] aggressive ... you don't get anywhere." She feels that if you watch two people talk from opposing sides, one just tries to refute the other, with neither listening, "and they get more and more aggressive, and nothing's accomplished at all. Except possibly to make it worse." She makes her key point: "Being angry and pointing fingers, you

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Figure 1.1 Chimpanzees in their natural forest habitat. Jane Goodall on key aspects of conservation, caring enough to act and being practical: "It's not about engaging them [people] intellectually. . . . You just have to reach people's hearts. And the best way I know is to tell stories" and "If we don't help the people to find other ways of living than destroying the environment, then we can't even try to help the chimps" (guenterguni / E+ / Getty Images)

won't get anywhere. You just have to reach people's hearts. And the best way I know is to tell stories."

In a different discipline, in 'Earth stories: Context and narrative in the communication of popular geoscience', by Stewart and Nield (2013), the first author, having worked in television for some time, promotes exactly the same conclusion. He feels that people are not necessarily motivated by ideas alone, but they do tend to listen to stories which involve these ideas and they can find the narratives very engaging and motivational (Box 1.1).

The relationship between scientific evidence, the stories told and the motivations for human response and reaction are complex and interesting. But, simply put, a story is a way of making sense of something – a way of finding meaning – an explanation. "What is that?" or "Why is that creature doing that?" we might say. "Oh, it is so-and-so" comes the answer. "Ah, yes", we say. And, thus, something is understood through the answer which often conveys a meaningful sense of purpose and reason that is very attractive.

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Box 1.1 *The importance of narratives*

Our ideas can often be effectively expressed as storylines – or narratives – which bring meanings to events and observations. As seen in the book description of *The Routledge Encyclopedia of Narrative Theory*: "[S]tories have come to be viewed as a basic human strategy for coming to terms with time, process, and change" (Herman, Jahn and Ryan, 2010). The American literary critic, Kenneth Burke (1941: 253) put it as: "stories are … equipment for living" and as such they are bound up with our identity (as discussed in Brockmeir and Carbaugh (2001), *Narratives and Identity*).

The analysis of narratives is common in cultural and literature studies but such analyses are less common in ecological science – but they are there nonetheless, especially in the field of conservation motivation. This is evidenced, for example, in the writings of Cronon (1992), 'A place for stories: Nature, history and narrative' and Rose et al. (2016) in 'Honest advocacy for nature: Presenting a persuasive narrative for conservation', published in the *Biodiversity and Conservation* journal.

In *The Power of Narrative in Environmental Networks*, Lejano, Ingram and Ingram (2013: 56) feel that environmental narratives reach from how we think things are to how we think things should be: "[N]arrative is the means by which we bridge the gap between describing the events … and prescribing." Narratives of the environment are also discussed by Palmer (2011) in terms of their fundamental involvement in the history of places; Satterfield, Slovic and Gregory (2000) in the context of policy judgement and Shanahan, Pelstring and McComas (2010) in terms of their significance to environmental attitudes and behaviour.

Human cultures do indeed have many stories about nature. We use these stories very effectively to make sense of nature, often giving meaning, value and purpose to the way we see things. Some of the stories don't necessarily stand up to closed scrutiny, so there is a possible dilemma of having something which is motivational but wrong. However, what is interesting is that the more that people can relate nature to their own human feelings, the more effective – the more motivational – the stories become.

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But there is no necessity of meaning in nature itself. Nature is just doing what it is doing; things exist because they can. It is us who bring a sense of value: there are no meanings in nature other than those we bring to it. Things in nature don't have to be the way they are except in the sense that what is and what happens depend upon what has gone before and the way things interact. The world has been through many different states with many different life forms in geological time, all of them viable in the sense that they all existed and indeed life forms have come and gone as the states varied and evolution took place. Nature is indifferent to us and there is no necessity that we are here. However, the necessity of nature is that for us, the earth is our home. We depend upon nature and we should cherish it. This is not only a functional, utilitarian argument but also a spiritual one. We need nature for our culture and our intellectual and spiritual life to flourish as much as we do for oxygen, food and water. As Laurens van der Post (1986: 139 and 141) nicely expressed it: "[C]onservation is a deep need in the soul of man ... man needed it almost more than the animals did ... nature will always take care of itself even without man. But man without nature is unthinkable and, known or unknown, his spirit needs it: needs it for its survival, sanity and increase, as his body does." Loss of nature is thus a loss of culture and a loss of self.

Hence, we can argue that not only does our science have to be enacted through practical conservation in a cultural context, the proposition is that it is the cultural context which provides a set of persuasive arguments as to why we should conserve nature. We should also examine the counter-arguments which exist about why nature need not be conserved; otherwise we shall not understand why it doesn't happen. Such counter-arguments may involve indifference or hostile attitudes to nature, or selective views that some animals have more conservation value than others. One has only to think of the cultural attitudes towards pandas and mosquitoes, for example, to grasp the range of views. There are also many, more subtle, aspects as to why not everything needs to be conserved; for example, the selective control of predators to conserve a rare species and tackling pests which decrease our food stocks. In all cases, we have to think carefully about our justifications.

In the context of nature conservation endeavours, given the therapeutic and psychological significance of nature to our species and to human culture, we also consider the roles of poetic, emotional attachment to a sense of place which can be as important as scientific evidence. A sense of justification for action involves a wide range of approaches.

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Not only are the functional significance of species important, as for example discussed by Jax (2010) in *Ecosystem Functioning*, but also the therapeutic value of nature together with the historic and poetic associations involved in a human feeling for landscape, including seascape, and wildlife. In a key book, *Why Care for Nature?* Postma (2006: 107) has chapter 3 entitled 'Because we are human' and a section 'In defence of an aesthetic account of the intrinsic value of nature' – to get away from the dichotomy between the anthropocentric and ecocentric views of nature. That is to say that it is neither an anthropocentric view of nature, where nature deserves moral consideration because nature affects humans, or an ecocentric view where nature deserves moral consideration because nature has intrinsic value. However, it is an endeavour to see the whole picture where both are viewed through the lens of aesthetics – an appreciation of nature for its beauty. This is very much the spirit of networks for nature: www.newnetworksfornature.org.uk. This is a broad alliance of poets, authors, scientists, film makers, visual artists, environmentalists, musicians and composers whose creative work draws on the natural environment. They feel that wildlife and landscapes are too often evaluated in economic or scientific terms when they should be seen as a resource at the very heart of human creativity with the natural world at the centre of the nation's cultural life.

In Andrea Wulf's (2015: 298) book on Alexander von Humboldt she has a chapter on 'Art, ecology and nature' where she describes the difficulty the biologist Ernst Haeckel (1834–1919; Figure 1.2) had in coming to terms with reconciling his scientific work with the cultural dimensions of nature. By contrast, Humboldt (1769–1859; Figure 1.3), who Haeckel looked up to, had written in his *Cosmos* about the bond which "united knowledge, science, poetry and artistic feeling". Earlier, Goethe (1749–1832) was well known for his literary botanical and anatomical work and his writings on colour. However, Wulf recorded how Haeckel "didn't know if he should use a paintbrush or a microscope" (2015: 299). Nevertheless, Haeckel's drawings are now widely regarded as great art, as in Hartman's (2010) book: *Ernst Haeckel: Art forms in nature*. Today, it is argued that earlier investigators had to deal with less knowledge so they could cover a wider range and that the proliferation of knowledge has inevitably led to specialism. However, in order to promote the conservation endeavour, it seems today that any scientists sticking to their narrower disciplines might usefully do more to embrace the wider outlook and awareness of Humboldt and others even as they focus on their specialism.

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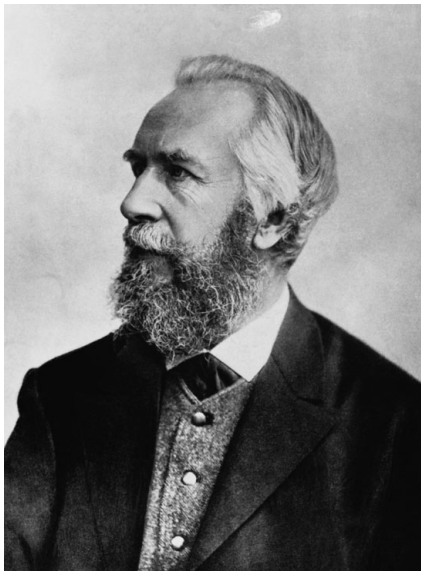

Figure 1.2 Ernst Haeckel "didn't know if he should use a paintbrush or a microscope" (Wulf, 2015: 298) (Hulton Deutsch / Contributor / Corbis Historical / Getty Images)

For a modern example of the unity of science, poetry and art, and how this motivates to conserve, one need look no further than Helen Macdonald's (2006) *Falcon*. Here scientific understanding and cultural history, including J. A. Baker's (1967) *The Peregrine*, merge in an appreciation of the speed, power, beauty and ferocity which make falcons so compelling.

The book thus embraces a range of scientific, artistic, creative, emotional and spiritual aspects of nature. This range then forms a basis for exploring an approach to nature which is both scientifically defensible and also humanistic and which can foster the widest possible diversity of reasons why we should wish to justify the conservation of nature and natural places.

Setting the Scene – Meaning and Significance

I used to start my lectures on the social engagement with nature by looking at a tree out of the window and saying that "that tree does not know it is Tuesday". I do remember at least one student walking out at this stage, understandingly at a somewhat ridiculous statement designed to be provocative. However, most of them readily grasped that there is a

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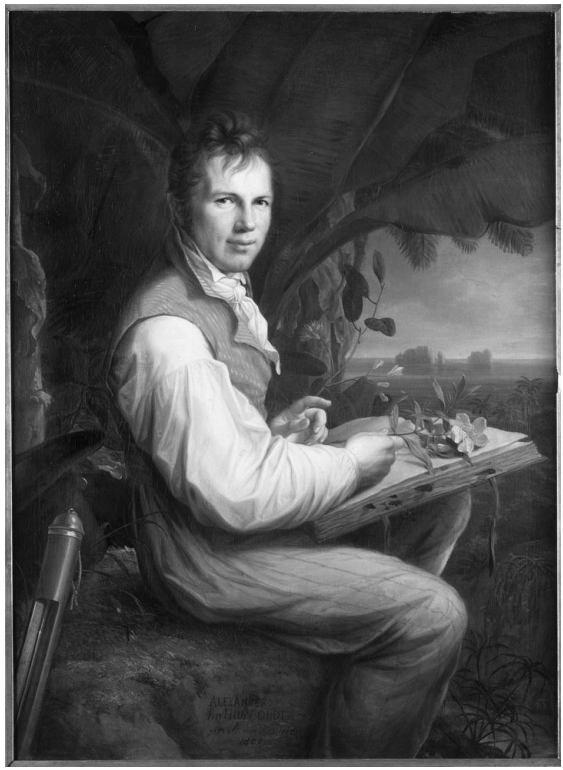

Figure 1.3 Alexander von Humboldt "united knowledge, science, poetry and artistic feeling" (Wulf, 2015: 298) (ullstein bild Dtl. / Contributor / ullstein bild / Getty Images)

world of objects – for example, something to which we give the word 'tree' – and then a world which we have constructed: 'Tuesday' is our invention. We have many, many such inventions, including the words 'ecology' and 'ecosystem' (the latter by Sir Arthur Tansley, as discussed by Trudgill, 2007, 2020). People also often attach values to our constructions, like 'healthy ecosystem'. It is this invented world and the associated value systems which are of interest here because this is where the realms of meaning and significance lie. A tree is a tree is a tree – but we never see it that simply. What sort of tree? Do we value it? Is it in the way? Does it support birds, give shade, fruit, is it useful for timber? The constructed world around 'tree' is as large and diverse as it is revealing of our own thoughts and attitudes which act to transform the object 'tree' as we look at it.

The writer Paul Feyerabend (1999: 12; Figure 1.4) made an important proposition, which is discussed further later in the book but which is

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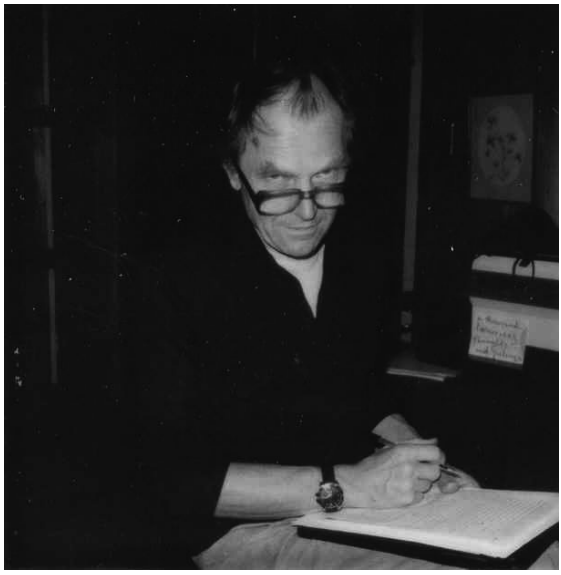

Figure 1.4 Paul Feyerabend (1924–1994) (Photo: Wikimedia)

relevant here, that when we understand something, we transform it. This proposition relates to how we immediately account for something using narratives of meaning – and it is an interesting and important cultural process in society which changes both what is being observed and how we react to it.

People react to something which they find meaningful and significant – and this may well involve attributing a sense of purpose to an occurrence. The meanings may be significant in that how people see something can be highly motivational and lead to the justification of different courses of action. Depending on how we are situated, we might shrug our shoulders and walk away or we might complain and demand action. Any action following this reaction relates to the emotional response – whether neutral, negative or positive. It will follow that people will want to counteract something negative and cherish something when the meanings are positive. Deciding what to do and how to do it can follow but meaning and significance are fundamental to caring enough to be motivated to do something. If we are interested in motivation for conservation, it thus behoves us to explore this world of the meaning and significance of nature.

As a further example, a boulder falling off a cliff and hurtling down towards us is very real and can hurt us. The event is then transformed by

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meaning which is beyond the simple observation and it could be seen as significant according to the perceptions, assumptions and culture of the observer. Why did it fall off just as we are passing? Was it just bad luck? Was it dislodged by an animal? Loosened by the weather or a minor earth tremor? Or did it just fall off? Perhaps it was pushed? Is it aimed at us? What could have been done to prevent it? Is it someone's fault? Is it a sign? Is it a punishment? Is it God's will? Is it possessed by a spirit?

Finding meaning and significance in events thus transforms the events: the things which happen around us are changed by the way we think about them. In sociology, this can be referred to as a social construction – a meaning constructed by society which may be held by many people or contested and more individualistic. The boulder still fell, as any observer would agree, but when we construct meanings, the meanings are within us and not in the event itself and thus can vary with the individual.

If we follow this idea, it leads to the conclusion that reality is defined by our concept of reality: how we see something defines what we are seeing. What is real is imagined and what is imagined is real. It is akin to the writer Rorty's (1979) ideas in the 'mirror of nature' where he discusses how 'what is seen as true' amounts to 'what the observer wishes to say'. These ideas themselves can be examined more closely; however, as clearly one could argue the case that every observer will see a tree or a boulder falling but not all will agree on what it means – they are able to construct it differently. So, it is the 'truth' of meaning which varies rather than the 'truth' that some kind of object is present (these two notions are allied to the ideas of epistemology – knowing – and ontology – existence, though these terms are themselves much discussed and debated). However expressed, the ideas do elucidate the notion that there are no meanings in nature other than those which we bring to it ourselves. Thus, a tree will be a tree; a boulder will be a boulder; a fly will be a fly; a wet area of land will be a wet area of land – but how we construct them in terms of meaning can vary vastly – tree as useful or obstruction; falling boulder as omen or inconsequential; fly as nuisance or useful part of the ecosystem; wetland as biodiverse area or dismal swamp.

So, then, given that different people will see – or construct – the same things differently, we may ask: why is an observer thinking like they are? The philosopher Foucault asked a key question here (from Bernauer, 1987 and Bernauer, 1992: 270–271 on Foucault, as discussed in Darier, 1999: 224): 'How have I been situated to experience the real?' How have I been positioned by my upbringing? My culture? My circumstances and the contexts in which I exist? For us, the really interesting question

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becomes one of why and how have people come to see and perceive the meanings in nature that they do.

The answers clearly relate to people's knowledge, beliefs and culture. Equally interesting, is that if we ask: 'Why do we think the way we do?', this can be quickly followed by: 'Do we actually have to think the way we do?' And if we realise that we do have a choice – and have the power to change the way we think – how do we choose which ways might be better? What would the criteria for 'better' be? This gives both a sense of 'having been situated or positioned' to think in a certain way but also the liberation that 'I could think in a different way.'

One aspect of this is to be conscious of how we are supporting the ways in which we think. Beliefs can be cherished despite the evidence – and evidence can also be selected to reinforce a belief. This is known as 'confirmation bias' where we tend to see what we already agree with. If we are conscious of this process, it might help us to try to think and look differently.

In this context, the way we find justifications for proposed courses of action is particularly interesting. Evidence is often cited when we are finding meaning and significance and we are justifying actions. However, not only is the gathering of the evidence itself influenced by our approaches to deriving it, confirmation bias means that we might consciously or unconsciously selectively ignore or emphasise aspects of the evidence available. So, part of the self-awareness during the process of justifying our actions is to ask how far are knowledge and information selected, supressed or emphasised to fit a preferred meaning or belief? As we saw with the falling boulder, the interpretations are not entirely based on what we actually experienced. There is an important link between our beliefs, our justifications and our actions. As the philosopher Jacob Bronowski (1973, pp. 116) said: "the hand is the cutting edge of the mind" – what we do reveals what we have in mind.

Notwithstanding such attempts to be self-aware, thinking differently from the way we do is not easy. Towards the end of his book on the way in which societies see nature, Neil Evernden (1992) wrote:

> Perhaps there is only one conclusion a reflective naturalist can come to: that if we would protect nature from the perils of the 'environmental crisis', we must first acknowledge that those perils arose as a consequence of conceptual imprisonment. If we would save the world, we must set it free. This is a frightening prospect. To contemplate actually letting something be is very nearly beyond our ability. (Evernden, 1992: 129–130)

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Tellingly, Shirley (2019) in 'Nature's place – what should live where?' the author writes:

> If we lift our eyes above the 'ecological horizon' we will see a world which, socially and culturally, is a borderless mix. Nature strives to be like this, but we constantly try to constrain it. Instead we need to harness nature's resilience, resourcefulness and chaos, and stop pretending that it is frozen and static. We need to create the conditions for natural processes to flourish and stop trying to impose our own 'designer solutions'.

These quotations raise many interesting points and the conceptual imprisonment, to me, refers to the transformations, inspirations and constraints which our ideas bring. This is rather more fundamental than the idea of 'setting nature free' and moving from 'management' of nature to 'letting nature take its course' – that is merely jumping from one conceptual imprisonment to another. What I gain from Evernden's writing is that the unthinking repetition of ideas can dominate our automatic responses and actions – and that this should not go unchallenged. It is the realisation that we don't actually have to live by the ideas we do live under which sets us free from the conceptual prison. If our ideas can turn out to be some form of cultural delusion, then we should realise that they are limiting our thoughts and actions, rather than just rehearsing them over and over again. We come to realise that we are looking through a cultural lens of perception, and that we should realise that the lens is there while we are thinking about the way we see things.

There is a German word, '*Kulturbrille*': *kultur* ('culture') and *brille* ('glasses' or 'spectacles') or 'culture-glasses', used by the German-born American anthropologist Franz Uri Boas (1858–1942) to mean acquired cultural associations ('lenses') that shape an individual's perceptions. It was seen as important for anthropologists when writing about cultures other than their own. In *Falcon* by Helen Macdonald (2006: 7–8), the author refers to the "the invisible mental lens" you acquire in your own culture and through which you view the world. In the book, our human *Kulturbrille* make falcons the "repository for human meanings" but Macdonald (2006: 8) writes: "Animals are so malleable a repository for human meanings that some modern critics see them as existing almost entirely within the realm of human representation." She then resists this: "But falcons are not merely imaginary receptacles for symbolic meaning. They live, breed, fly, hunt, breathe. As living animals real falcons constrain, undercut and sometimes resist the meanings people have attached to them."

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This discussion of perceived worlds, lenses and meanings can be further illustrated by a quote from the script of a television programme written by Adam Curtis (2011) cited in a paper on 'The ecosystem' by Cameron and Earley (2015: 473): "This is a story about the rise of machines and our belief in the balance of nature. How the idea of the ecosystem was invented. How it inspired us. And how it wasn't even true."

How interesting. An ecosystem doesn't actually exist in the way a falling boulder does. It exists as a very important idea which we find extremely helpful in our way of thinking and it serves us well, we think. The term was invented by Sir Arthur Tansley (as discussed by Trudgill, 2007) and involves ideas of interrelationships and dependency. It remains, however, a concept not a tangible entity, as Tansley himself wrote – it is a way of seeing things – and we should see it as such. The writer John Steinbeck felt that science did not prove anything, but that it goes by something so long as it serves us well, though we can become very attached to our own hypotheses, as he discusses in *The Log from the Sea of Cortez* ([1951]1960: 234). The ecosystem concept seems to be serving us well, so we are going with it, but it may just also be a constraint on our way of thinking. This is not to challenge or to deny the importance of the ecosystem concept but the point is simply to make sure that we know that it is giving us a lens through which we are looking.

My ideas on this topic of looking through cultural lenses crystallised more on reading Stephen Bocking's (2015) article on 'Ecological concepts: Seeing, placing, imposing'. Yes, I thought, we impose so much on nature – that word in his title just about sums up what I wish to write about. Certainly, we might usefully be aware that the beliefs are impositions before we repeat them endlessly and use them to justify our actions.

In essence what I want to emphasise is that nature is just doing what it is doing. Maybe things happened just because they could – and that 'why' is the same as 'how'. However, we impose a multitude of ideas upon nature and, believing them to be true, we act upon the presumed implications of our beliefs. Think back to the falling boulder and you will see what I mean. It just fell, but our reactions tell us so much about the way we think and act.

I shall feel I have succeeded if this book helps the reader to think more carefully about our much-rehearsed ideas about the meanings of nature. Especially if this is to think about the way we impose them on the environment both consciously and unconsciously. And particularly to think about the way we may do this with or without any evidence – or despite the evidence which we choose to ignore and because of the

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evidence we are willing to see. In terms of imposing our ideas on events and objects, vindictive traffic lights are a good example.

Vindictive Traffic Lights: Explanations and Choice

Drivers in urban areas will immediately recognise what I mean about traffic lights changing to red just as you drive up to them. You *know* that they are just changing at set times but *why* do they *have* to change to red *just* as *I* am approaching? It seems personal and malicious, especially if you are in a hurry. In all reason, of course, the lights are just changing – they are just doing what they are doing, quite impassively. However, this common urban experience shows how we interpret the world about us in a way which readily involves attributing a story – or narrative – to a set of objects. Most important is that the story is formed in relation to our wishes and intentions. It is the same with nature – it is just impassively doing what it is doing, but we relate to it through our intentionality.

Sometimes, how the lights change doesn't matter at all. If we are not in a hurry we might just stop mechanically at a red light, thinking nothing of it. If they are green we might hardly notice – unless we are concerned that they will change before we get there. The key point is that our relationship with the traffic lights tells us a lot about ourselves and far less about the traffic lights. And so it is with the key proposition that our relationship with nature tells us far more about us than about nature itself.

In *Other Worlds*: *A portrait of nature in rebellion – space, superspace and the quantum universe* Davies (1980) writes on landscape, proposing that we do not experience an objective reality. Instead it is "the relationship between the observer and the observed which gives us the sensations of a surrounding reality". Our versions of this reality will be coloured by our model of the world "as constructed by previous experience, emotional pre-disposition and expectation" (after Davies, 1980, quoted from Sayer, 2005: 103 where the reference is erroneously attributed to Professor Paul Davis [*sic*]).

The proposition that our relationships with nature reveal more about us than about nature matters because these relationships control our approach to nature. A bird or animal eating some vegetation by a roadside we happen to be passing is very different to that same bird or animal eating our very own food crops which we have grown for ourselves in our garden or farm plot. The casual and incidental observation of eating is transformed into a malicious threat from a marauding

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creature. We pass the creature by in the former case and may seek to remove in the latter. That creature is, however, just like the red traffic light – it is just there doing what it is doing and we have constructed narratives involving positive or negative emotions – or indifference – according to our intentions. A scientist might say that the bird is just eating to stay alive but we can also empathise with the creature in its needs or think about eating it for our survival or invoke a host of other stories. A key point is how these ideas of meaning transform nature according to our perspectives. A further endeavour is to assess how the meanings act both to inspire and to constrain us.

Meaning and Seeing

Our perspectives do have a strong influence on perceptions, as many authors have emphasised. As Sheail (1995: 955) deduced from Simmons's (1993c) book on environmental history, "we are simply projecting onto the world what the author wanted to believe anyway" and Pimm (1991: 388) writes in *The Balance of Nature?* that "theories tell us where to look and when we readily find what we are looking for, we gain confidence in them" (see also 'Do theories tell us what to see?' by Trudgill, 2012a). Writing on 'Environmental thought and action' Denis Cosgrove (1990: 345) asserted that: "Metaphor and image are conceived not as surface representations of a deeper truth but as a creative intervention in making truth." In other words, what we already have in our mind as representations can become the object we are observing. This also concurs with a proposition from another writer arguing from a psychological perspective that "images do not raise consciousness, they force it to descend" (Bishop, 1992: 17). Thus, imagery can constrain what we are aware of.

The phenomena of seeing faces in non-human objects, such as rocks and clouds, is well known under the term pareidolia which can be defined as perceiving familiar patterns where none actually exists. As Mark Antony says to Eros in Shakespeare's *Antony and Cleopatra* (Act 4, Scene 14):

Sometimes we see a cloud that's dragonish;
A vapour sometime like a bear or lion,
A tower'd citadel, a pendent rock,
A forked mountain or blue promontory
With trees upon't, that nod unto the world
And mock our eyes with air.

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This phenomenon, in its generalised sense, is perhaps far more widespread and fundamental than is generally acknowledged and involves not just seeing faces where there are none but also seeing what we think we perceive in everything from landscape views to beliefs about nature. We see a powerful idea and look no further. Indeed, Samuel Perry, a sociologist at the University of Oklahoma who writes on Christianity and the cognitive underpinnings of religious belief, is quoted (in Whipple, 2020) as saying: "Humans have an evolved tendency to perceive agency when there is none" and "That adaptation would help us to survive by allowing us to better detect danger. But it could also incline us toward attributing the random movements we observe in nature to spirits." So, we can attribute patterns to deities or other agencies and we can see a man in the moon if we are so minded. However, while we know that there is not actually a human face in the moon, we see the balance of nature and other concepts all around us but we all too rarely appreciate that this is a form of conceptual pareidolia and make the second step of looking to see what might actually be there. As J. A Baker (1967: 19) observed when writing about the peregrine falcon and the way it is portrayed, "the hardest thing of all is to see what is really there".

Perhaps we are like the travellers discussed by Andrews who, writing on *Landscape and Western Art*, cites the observation of Cézanne who wrote in 1902 that he felt that people had stopped looking at nature but were just recognising previously experienced pictures. Andrews (1999: 177) quotes Cézanne's words: "Today our sight is a little weary, burdened by the memory of a thousand images. We no longer see nature; we see pictures over and over again." Andrews reinforces this by noting (p. 131) that some early travellers in Europe recorded how they referred to the names of artists when they came to particular views "according to whether the subjects before our eyes reminded us of the manner and choice of one or other of the masters [artists] named". The mental image takes precedence over the landscape which is before the viewer.

I've often taught how landscape art can have wide interpretations. I had a painting (Figure 1.5) in my College room and I regularly asked students what they think what is being depicted.

Some saw it as positive as representing how life clings on despite adversity; others saw it as negative as showing something dying. It can thus be described as hopeful or gloomy. The response was usually about 50:50 each way. Either way it is seen as imbued with significance and purpose. Whatever the interpretations, there seemed to be some

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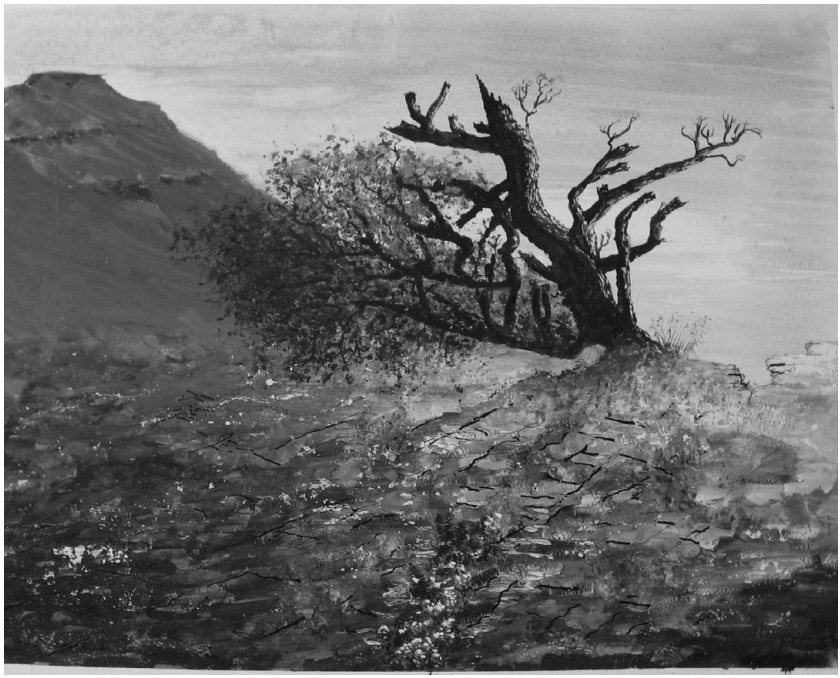

Figure 1.5 Author's painting of a tree on a limestone pavement, Ingleborough, Yorkshire. Negative as the tree is partly dead or positive as the tree is surviving? (Photo: S. Trudgill). *A black and white version of this figure will appear in some formats. For the colour version, please refer to the plate section.*

emotional engagement and a search for meaning. As a physical entity, it is a half-dead, half-alive tree. We can say that the dead portion is on the exposed side where frost and wind have combined to kill the tree – and thus we can know the tree by that meaning. Our narratives of meaning can be emotional and/or scientific – but each is purposeful in some way.

The supervision students, not knowing initially that it is my painting, discussed the artist's intention, often with some relish and assumed insights which, for them, imbued the painting with a sense of purpose. When I revealed that I had painted it and I recognised very little of what they said as motivational for me, they were often crestfallen. However, when they pushed me, they felt comforted, I thought, when I said that I think the appeal for me is about the juxtaposition of the living and the dead parts. But that is a post hoc self-interpretation. In truth I just sat down and painted it without much conscious thought of why – it just appealed to me, perhaps compositionally and as a striking image as much

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as anything. This process told me that unless the artist was aware of and specifically stated their intentions, then not only is it easy to over-interpret the artist's intention but that all interpretations are possible – and untestable. The viewer is making up stories about the artist which are justifiable, and which then become true for the viewer. The fact that I created the image and then sat back and listened to a myriad of interpretations and assumed meanings which 'the artist must have intended' told me a lot. That many interpretations of images are possible – and untestable – and about how easy it is to over-interpret the intentionality of an artist. The lesson is the same when looking at nature and we read intentionality where there is none.

Meaning and Transformation

Just as with paintings, we can find meanings in landscapes themselves and nature derived from a blend of prior knowledge, associations and emotional responses. I also have no doubt that the understanding brought to bear by interpretations is not only transformative but also restrictive. This key point here is one introduced earlier in this book and is made by Feyerabend (1999: 12) in *The Conquest of Abundance: A tale of abstraction versus the richness of being*. Here he describes how we tend to reduce the myriad teeming complexity of nature through the process of trying to understand it. From his writings (p. 12) I find the following points particularly telling. First: "Variety disappears when subject to scholarly analysis. This is not the fault of scholars. Anyone who tries to make sense of a puzzling sequence of events, his or her own actions included, is forced to introduce ideas that are not in the events themselves, but put them in perspective." Second: "There is no escape: understanding a subject means transforming it, lifts it out of a natural habitat and inserts it into a model or a theory or a poetic account of it." The phrase 'understanding a subject means transforming it' is, I think fundamental. As we saw earlier, a bird eating a seed is a just bird eating a seed – but it can be a delight if we put the seed out to attract it or a pest if it is our food it is taking.

The 'model or a theory or a poetic account' he writes about are abstract notions we construct in our minds. Such mental constructs then become the means by which we give significance to the perceived world through the use of narratives of meaning. The proposition is that narratives are unavoidable in order that the world may have some interpretation and meaning: they provide necessary and comforting ways of making sense of

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the world. The idea of a 'bird eating a seed' is a simple enough construct but the emotive narratives of delight or theft give the transformative significance. In terms of what justifies environmental action, it is easy to see the different directions these transformations take us.

The transformations can be highly individual according to people's culture and experience. Feyerabend (1999: 12) writes: "Even the discovery of an immanent [pervading the universe, inherent] structure changes the scene, for the events-as-they-are and events-known-to-have-the-structure don't affect people in the same way. But one transformation may be better than another in the sense that it permits or even explains what for the other transformation remains an insoluble puzzle." However, each transformation can impoverish rather than enrich experience – directing our attention at the expense of other items which might be observable, focussing and constraining our thoughts. This also limits the range of possible actions.

We may emphasise here again how in detective stories, the crime writers not only lay the false trails of narrative traps during the unfolding of their work, but they also in the end make us fit all the detail into the concluding narrative, marginalising all other aspects as trivial. We thus omit or include so much when making sense of things according to our sense of significance. Feyerabend writes that "even the simple attempt to describe may throw a veil of illusion over the world" and he considers eighteenth-century travellers and naturalists described by Mary Louise Pratt (1992) in *Imperial Eyes* who "reduce and dismantle all they find while retaining the language of direct observation" (Feyerabend, 1999: 12).

Interactions between Facts, Evidence, Experience and Values

Consider the proposition that a 'fact' is meaningless unless it has a narrative of meaning. In terms of the role of evidence and experience, Kearns (1998: 379) writes how values and experience interact, terming experience "facts". Values prioritise or relegate facts and the feedback is that facts embarrass or endorse values (Figure 1.6).

A 'fact' can be endorsed as significant and taken as evidence to support the values or it can embarrass the value which we might change; in turn, our values may lead us to stress a 'fact' or to relegate it. Physical 'reality' can thus be played down or played up according to our values and also may change or reinforce our values according to the selectivity with which we play it up or down.

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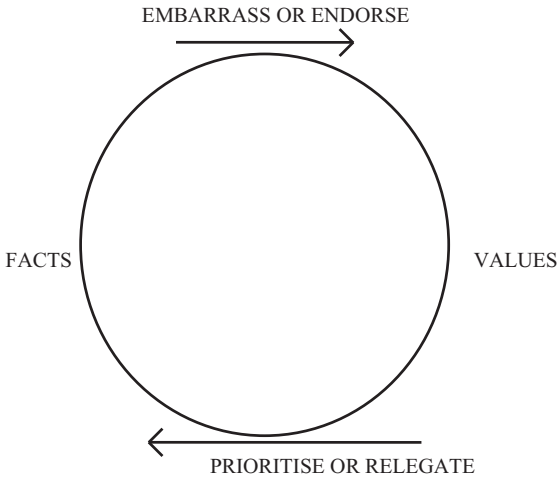

Figure 1.6 The virtuous circle of facts and values (modified from Kearns, 1998: 379 by permission from The Association of American Geographers, www.aag.org published by Taylor & Francis Ltd: www.tandfonline.com, and the author)

If 'facts' can have no meaning without a contextualising narrative, then what we call 'reality' can arguably be seen as having a fluid, reflexive relationship with our mental constructs and associated narratives by which we make sense of the world. In that sense, reality is defined by our concepts of reality.

What is interesting is the choice we have between whether to change our concepts to fit new evidence or whether to be selective about which evidence we find legitimate.

This choice is often not made consciously, and the situation is often rather messier than a simple duality of choice and so the purpose of this section is to raise awareness of these processes whereby constructs, narratives, meanings and judgements can become conflated.

It might be assumed that that Feyerabend's transformation and Kearns's prioritising/relegation is less marked the more we are dealing with tangible (e.g. 'hot') constructs because the facts might only allow a narrow range of narratives, allowing few other meanings and judgements. It is then arguable that meanings and judgements only really flourish in multitudes for constructs which are more diffuse, less easy to test. Thus, a woodland can be seen positively as a refuge or negatively as a place where threats lurk depending on the viewer's context. In this case we would have far more choice of values because the 'facts' can be

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constructed in many different ways and thus tend to embarrass our values less. However, while nature does cover the whole spectrum from the tangible to the more obviously judgemental, even the more tangible end of the spectrum can be just as readily transformed and constructed. 'Fire' does indeed have a latitude of conceptual interpretation – while it is always 'hot', it may be seen as beneficial or disastrous depending on what is burning, how controlled it is and in what context and thus we have to study both the range of descriptors and the range of meanings. Thus, with fire the basic descriptions (some form of 'hot') might be limited but the meanings and significance vary and this is so much so that even the descriptors become loaded: 'warming' or 'destructive inferno' because the meanings influence what we are perceiving.

For example, earthquakes are highly tangible as a construct but can be attributed with multiple meanings and judgements (Ludwin, 1999). They can be seen as an event or punishment or some kind of 'test' to be met. In Greek mythology, Poseidon was the cause and god of earthquakes. When he was in a bad mood, he struck the ground with a trident, causing earthquakes and other calamities. He also used earthquakes to punish and inflict fear upon people as revenge. In understanding the earthquake, it is transformed into an instrument of purpose.

In Norse mythology, earthquakes were explained as the violent struggling of the god Loki. When Loki, god of mischief and strife, murdered Baldr, god of beauty and light, he was punished by being bound in a cave with a poisonous serpent placed above his head dripping venom. Loki's wife Sigyn stood by him with a bowl to catch the poison, but whenever she had to empty the bowl the poison dripped on Loki's face, forcing him to jerk his head away and thrash against his bonds, which caused the earth to tremble.

In Japanese mythology, Namazu (鯰) is a giant catfish who causes earthquakes. Namazu lives in the mud beneath the earth and is guarded by the god Kashima who restrains the fish with a stone. When Kashima lets his guard fall, Namazu thrashes about, causing violent earthquakes.

It has often struck me at English Harvest Festival services, where we celebrate what we have grown and gathered, what a conceit there is underlying a lot of the otherwise appropriate gratitude: it seems curious to me that God's bounty is just for us. Everything is created especially for us and it is bestowed on us – and we are grateful, humble even. There is thus a curious anthropocentric view of creation pervading the narratives in the hymns and prayers. Curious when plants like grasses evolved, but it was we who cultivated the most productive varieties. The worship is as

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though wheat was suddenly created especially for us. Here we are at the centre of the universe and a benign God has created everything for our benefit.

The question of agency is also interesting and the fact that we don't have it all our own way. Yes 'we plough the fields and scatter the good seed on the land' but 'it is fed and watered by God's almighty hand'. It is the interaction which seems to be central here. There is something beyond our power – but what are we actually saying? This looks like a supplication, an entreaty because the Almighty hand might not bestow its grace upon us. We are grateful for the occasions when it does but, in reality, sometimes the weather is bad and the harvest is miserable – so it is not actually all for our benefit. Of course, we might conclude all sorts of things if the harvest has been bad – maybe it was our fault. Who knows? It depends what you wish to believe. So, which delusion would you like? Is the world created for us? It is all out of our control? It is all a struggle against the elements? It is all under our control – or at least to make the best of it? It is all ordained? It is all random?

Transformative narratives of purpose thus abound. However, while an earthquake is still an earthquake and a fire is still a fire, I think that the key point is that in nature the physical realities can be subordinate to the construction of meanings which readily dominate. Nature is passive and neutral but so often can have an imposed set of meanings. These meanings are often deeply held and the widely varied narratives can be contested, as Macnaghten and Urry (1998) describe in *Contested Natures*.

The Imperative of the Explanation

What we are really doing with nature, both in the way we see it and in what we do to it, is no more and no less than writing stories – finding narrative accounts which make sense to us. The crime writer P. D. James is attributed with the quotation that: "What the detective story is about is not murder but the restoration of order" (James, 1986). So, something ghastly has happened: a body lies in a room. It is the detective who is the hero. We twist and turn through the story, suspecting everyone until, at last, the killer is revealed. Most importantly we then discover the motive – the reason: money, love, jealousy or whatever. The logic is immensely comforting and we go back over the story and see how everything fits into the pattern. Order is restored and we are satisfied, no matter how awful the crime. Imagine, though, that there was no

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motive or reason. How immensely disturbing. The killer would then have to be 'insane'. No motive, no logic, no order. How unsatisfying – no wonder that detective stories do not characteristically end with this plot line. We may just cope with there being no killer (died of natural causes) but if there is a killer then there just has to be a motive.

The alternative to the reasoned narrative is, then, disturbing, unsatisfying and we quickly have to put in the narrative of un-reason – insanity. We may be satisfied with the provisional 'puzzling' but it never stops there – parallel and competing theories proliferate. It is the pursuit of order and reason, of the explanation, which we demand relentlessly. Without an explanation, we are lost.

It is the same with nature. We observe something. We ask why it occurred. We proffer explanations. We eliminate some possibilities till we complete the story by finding a cause or reason – and then we are happy to repeat this to others.

We are always telling stories – 'it is . . . this' or 'that', to explain. Passing a road accident, people crane their necks to see what happened – 'he must have swerved. . .', 'going too fast. . .' or some such follows, and we have order again. Everything is OK as long as there is a story. This is a pervasive and inescapable human trait: Marek Kohn (2004) encapsulates this in the title of his book on evolution: *A Reason for Everything: Natural selection and the English imagination*. We will argue over different types of reason and search for the most plausible given the evidence, but it almost doesn't matter what the reason is as long as we can find one – there has to be reason.

Even a sense of nothing has its own story – the narrative of emptiness. Victor Hugo's (1866) central character Gilliatt in *Toilers of the Sea* wakes at night on an island and peers into the indivisible darkness and there are thoughts of horror and terror hidden in the unreasoned nothingness. "Darkness has unity, hence arises horror; at the same time it is complex, and hence terror" writes Hugo ([1866]1911: 239–240), but then: "All is incomprehensible, but nothing is unintelligible." Even the darkness can be known and be read as a narrative. The words 'incomprehensible' and 'unintelligible' Hugo uses almost mean the same thing but the subtlety seems to be that you might not understand something but nevertheless you can say something about it: you can know or read something in it as some kind of construct without understanding what it is. Thus, he gives darkness, the epitome of unknowingness, narrative attributes of unity, horror, complexity and terror and so they become part of the story of darkness and unknowingness.

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The imperative of the explanation is writ so large in the human relationship with nature. There has to be a story. A woodland can rarely be 'just' a collection of trees; even indifference has its logic. At the very least it has to be sights and sounds, light, shade, greens, birdsong. It may then be perhaps a retreat, as for Thomas Hardy in "Nature as soft release from men's unrest" (from 'In a Wood' of 1898; see Chapter 5). Equally, a wood may be an ecosystem, with form and function – layers, interdependence, food chains. Alternatively, it can be an impenetrable threatening place; 'wilderness' and even 'chaos'. Thus, there are always stories and descriptors which allow us to handle something and derive meaning. However, note that not only can there be a descriptive appreciation but also how many of the characterisations are purposeful, for example about the function of the wood in providing release, being a system or thwarting our intentionality.

Simply expressed we have a relationship between 'something which is there' and 'what it means to us'. This can be expressed as a relationship between what is 'ontological' – dealing with being or essence, and 'epistemological' – dealing with knowledge in terms of concepts, propositions and meanings. These words themselves can be used with various shades of meanings which can prompt lengthy debates, but here, for example, ontologically there might be a group of trees but epistemologically it might be seen as an ecosystem with the attached notions of inter-linkage, flows, pathways and so on. Notwithstanding any of this, and in short, narratives have to be there and in nature many of them are imbued with purpose.

'Appropriateness' and the Consequences of Meaning

Deciding what is an appropriate narrative is always going to be a sticking point. 'Appropriateness' includes our sense of significance and is always going to be particularly contested because judging appropriateness will be nested in our criteria and contexts. In science, appropriateness might putatively be judged in terms of verifiability and evidence. However, even then, what is interesting is the study of the conditions which allow multiple narratives to coexist and flourish. This is actually a normal phenomenon especially as many situations are multi-dimensional. Even if a case for a belief seems overwhelming to many, 'evidence' can always be selective. A temptingly easy route to understanding is that narratives can be interpreted in terms of the characteristics of who is espousing them (usually declared as "they would say that, wouldn't they") – deconstruction in terms of the source. However, one might caution that this attributive

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narrative is a very easy cliché to use and is often over-used when there is actually no necessity in applying it. So, the rejoinder to "they would say that, wouldn't they" could usefully be "not necessarily" or "that doesn't necessarily follow" as they didn't actually *have* to say that. In this context I do like the paper containing the words 'the view from nowhere' (Shapin, 1998) and Thomas Nagel's (1986) book *The View from Nowhere* – the notion of just that very concept is one worth entertaining.

While constructs can be strongly normative and held by many, others may be weak, ambiguous and varied with many contested coexisting narratives held by minorities, along with disputed claims of appropriateness. With any normative, accepted sense of appropriateness it takes mavericks, new events, situations or evidence to change any accepted such sense. Appropriateness is thus very context dependent and difficult to generalise about. However, one clear criterion I can see for judging the validity of narratives, and their associated value systems, is in terms of the consequences of holding them.

Examining the consequences of espousing particular meanings is important because meanings tell us where to look, what to see and thus how to act. Therefore, we should be careful to examine any sense of necessity which follows from them. This might be compared with reading a tour guide which constrains us by telling us where to go and what to see. Travellers all know that if we go to a foreign place and read a guidebook we tend to focus on the specific sights highlighted and feel a sense of satisfaction at actually seeing them; we might find other sights not mentioned – and really enjoy some kind of personal exclusivity at our discovery but the guidebook gives a sense of significance. May (1996) discussed this in the article 'In search of authenticity off and on the beaten track'. We recognise this process on holiday but it is scarcely recognised that it is happening all the time. We can, however, have such a self-awareness if we think of Foucault asking – "how have I been situated to experience the real?" (from Bernauer, 1992 on Foucault as discussed in Darier, 1999: 224). Narratives play a vital role in this situating.

What is liberating is realising that there is a necessity and imperative of having a narrative but there is no necessity in having the narratives we have. Realising the former is essential to understand how we relate to the world but realising the latter can and should be liberating as nothing has to be seen like it is. Equally we don't, then, actually have to see nature and treat the environment the way we do.

The questions focus on: how and why do we see and, most importantly: what effect does how we see affect what we do? What conceptual

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stores do we have in our minds to influence our vision – and how does this vision affect our environmental actions? It was the philosopher Immanuel Kant (1724–1804) who changed the view that the mind merely reflected the world about the observer. Kant maintained that the mind is active in playing a part in shaping the world of experience: objects confirm to our minds. We can turn to Wordsworth's observations where his lines contain the phrases: "How exquisitely the individual Mind . . . to the external world is fitted; and how exquisitely too . . . The external world is fitted to the Mind" (from 'Home in Grasmere', 1800, lines 1006–1111; see Wyatt, 1995: 124).

How far and how do we fit the external world to the mind? How far and how does our imagined world alter the physical world about us? This is as well as: how far and how does this relate to the way the imagined world in the mind might or might not be fitted to the external world?

In *Landscapes of the Mind: Worlds of sense and metaphor* Porteous (1990: 3) observes that: "While environmentalists strive to protect tangible landscapes, poets, artists and novelists preserve, restore, and express our landscapes of the mind." We might also well ask how those imagined landscapes of the mind influence the tangible landscapes. That is to say not only do landscapes exist in the mind, the landscapes we create reflect what is in our mind. And is what we call tangible actually a set of created signifiers which we selectively find significant? Do we thus focus on what we have created in an elusive illusion of reality produced by the interaction of selective action and vision?

In terms of fitting the landscape to the mind, mankind's attempts to control and influence nature are well documented (e.g. Thomas, 1956, 1970). A singular historical example of the imposition of an ideology on nature is provided by Blackbourn (2007) in *The Conquest of Nature: Water, landscape and the making of modern Germany*. Here, the book charts how from Frederick the Great of Prussia through to the Nazis, the idea of 'mastery over nature' led to river channelisation and dam building in Germany. Rivers were not allowed to wander in their natural state but had to be controlled. The theme is further extensively displayed in Lekan's (2004) *Imagining the Nation in Nature: Landscape preservation and German Identity, 1885–1945*.

Meanings, Stories and Narratives in Nature Conservation

One of the UK's first nature reserves was Wicken Fen in Cambridgeshire (www.nationaltrust.org.uk/wicken-fen-nature-reserve). As is discussed

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further in Chapter 6 in the section on nature reserves, the changing management of the Fen illustrates the theme of how the ideas people espouse become manifest in the landscape. In *Wicken Fen: The making of a wetland nature reserve* Friday (1997: 216) discusses how the management plans ranged from an earlier idea of "laissez faire . . . allowing the Fen to run wild . . . and . . . return to its original state". The meaning was thus one of wildness. However, doing nothing and 'keeping it wild' led to the gradual replacement of the distinctive wetland by commoner shrubby plants and trees and a loss of the local fenland flora and fauna the area was famous for. Thus, one promotion of one meaning, wildness, led to the loss of other meanings such as speciality, rarity and species-richness. This contestation of meanings led to a change of plan and the removal of woody vegetation to maintain the wetlands – which indeed had been maintained by reed and sedge cutting for thatch in earlier times. In many ways the existence of local assemblages of distinctive biota was very man-made. A concept of management for particular purposes came to the fore, with the negotiation of ideas involving several possible reference points from the historical and pre-historical past. Eventually the plans agreed were those which were both biologically and culturally significant. The justificatory narratives involved both enhancing biodiversity, especially of the species special to that wetland area, and maintaining the reed beds which had been important to the economy of the area in recent historical times. Both of these objectives are facilitated by scrub clearance and now selected areas are maintained by the use of Highland cattle and Konik ponies to keep areas open and diverse (https://nt.global.ssl.fastly.net/wicken-fen-nature-reserve/documents/wicken-fen-the-grazing-programme-explained.pdf). There are clear actions and clear objectives but they are rather obviously nested in meanings and concepts about desirability which were negotiated through discussion. In Friday's book there are many justificatory concepts and images which are involved either implicitly or explicitly – especially those which refer to ideas about what the place should look like and what should be there (Figure 1.7).

The place was not left alone but managed to suit what a collective set of minds agreed upon according to a set of criteria. Whatever we see in the nature reserve now reflects how the landscape was fitted to the mind. What is revealing is how Friday's book rehearses so many narratives in order to justify each set of actions. These narratives involve constructs of biodiversity, the roles of particular species and the significance of cultural heritage. The instrumental power of narratives which are invoked during

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Figure 1.7 Cambridge University biogeography fieldwork class at Wicken Fen discussing habitat diversity – woodland left to grow in background, area maintained by cutting in the foreground (Photo: S. Trudgill)

the implementation of actions based on them is very evident. There was no letting nature exist – the whole project was imbued with a sense of purpose. The Fen guidebooks are now evocations of care with meanings of biodiversity, rarity and history.

Many natural history films are imbued with stories about creatures that are intended to raise concern about their future. Here we move on from simple observation (a falling boulder and possible interpretations) to more detailed stories about the relationships between animals, survival, predators and prey. The storylines involve strategies and often the purposefulness of the wildlife portrayed.

However, the search for purposes – the search for a story – can exert a kind of tyranny. We rather abhor the notion of 'well, it just happened'. But how far are we trapped in what one might call a 'tyranny of purpose'? The term 'narrative trap' is often understood in fiction – and especially drama – to indicate a false lead (for the use of the term in different contexts such as psychology and storylines in fiction see, e.g., Cayton, 2012; Dolan, 2019 and Lindenmuth, 2012). An example of a narrative trap in crime fiction involves a plot where we may be misled to suspect several innocent characters of a crime. However, in the finale the clever detective reviews the evidence and reveals the actual criminal, together with the way the narrative of the plot had trapped us into following false trails. Here indeed I wish to use the term in the sense of

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a narrative which appears attractive but may be misleading or constraining – indeed in the sense of Evernden's 'conceptual prison'. Thus, in the case of environmental narrative traps it may be that we keep on rehearsing the usual suspects without the revelation of the actual situation, possibly because it is difficult to see the actual situation as we find the narrative traps so attractive.

I became interested in stories about nature and where they lead us when I watched a natural history film and heard contradictory things. This made me wonder how far the statements made were illusions about nature which we only imagine to be true and it occurred to me that the ideas could both be narrative traps: meaningful, attractive, but misleading. In one part of the commentary I heard a speaker saying that nature is so fragile that if you take one species out then the whole ecosystem collapses. Later in the same film I heard a different commentator say that nature is so wonderfully robust because if you lose one species another steps in to take its place, keeping the whole system stable.

Much engaged me here: the evident incompatibility of these ideas as universally applicable generalisations together with the possibility that both these statements could be true depending on circumstances. For example, ecologists are used to citing Paine's 1966 and 1969 work on keystone species, where the removal of some species does matter far more than others, as examined further, below. However, what intrigued me was the fact that the two storylines could coexist in the same film and that both commentators genuinely believed what they were saying. Both also imply that species can have a purpose. This pervasive – and persuasive – sense of purpose is inherently woven throughout so much ecological language used, as discussed by Kohn (2004) in his book *A Reason for Everything: Natural selection and the English imagination*. It is also noticeable that the terms 'collapse' and 'stability' are not so much dispassionate observations as 'change' and 'not changed' might be; they have value-laden, judgemental overtones. One can see implicit instrumentality and morality in the words 'fragile', 'collapses', 'robust' and 'stability.

Additionally, as the film went on it showed that each speaker could present supporting evidence to confirm their assertions – in that sense both ideas could be made to be evidentially true or, to put it another way, both could be true if the speaker wanted them to be. There was no sense of questioning or testing, just the use of axiomatic statements.

Most tellingly, I realised that there were widely different implications of holding each of these views: the idea of fragility implies that we should have a mandate to step in to conserve each and every species; the idea of

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robustness implies that we have a reason for not doing anything as long as there is a range of some kind of species or other around. The real importance of these is that once stated, they constrain us in a delusion where evidence can be gathered to support them and, most importantly, the consequences of holding them are highly significant.

Two very different worlds revolve around the ideas. Fragility has a sense of wonder about nature's delicacy and allows a sense of responsibility for the loss: there can be a sense of guilt if it is we who have removed a species or damaged an ecosystem, a feeling of culpability and duty of care. Robustness allows a different sense of wonder about nature – 'isn't it amazing how it copes' – which also allows a lack of a sense of responsibility which in turn could foster a sense of indifference. But, I thought, which of these can lay any greater claim to truth? Both are clearly and sincerely held views which the proponents believed to be defensible. We can but question them as justifications for action.

In terms of evidence-based conservation – and specifically of seeking evidence to support an argument for which species 'matter' – we have the example of the oft-cited work of Paine (1966, 1969) where the removal of a top 'keystone' predator led to a complete change in a marine ecosystem. The removal of the sea star *Pisaster ochreous* converted a diverse rocky shore to a uniform mussel bed. Is this 'collapse' 'robust' or 'fragile'? It is certainly different. Life has carried on in some form, just as it has ever done through evolutionary changes in geological time, so it is robust. However, if it is human agency which has effected the change, we tend to view this negatively. Diversity has decreased so it is collapsed and fragile. The assessment is ours – but how do we justify our assessment?

When I read in Drury's (1998) book on *Chance and Change* that a species may become lost and there may be no discernible difference in an ecosystem, I was rather hooked into this debate. This did not assume that more was necessarily better and good. This was clinical, dispassionate: so, no species has a purpose. There is no preferable state. So, when a species is removed, there are narratives of 'collapse', 'replacement bringing stability' – but also 'no difference at all'. Is it just that we have a preference for diversity? It all seemed clear to me that viewing the world, finding evidence to support your views (confirmation bias) and justifying actions (or inaction) are all mediated through a set of assumptions and impositions which we often don't think about.

This makes me wonder what is going on. If different people can seriously propound different views of the way things are, how do we justify environmental actions if we can't agree on how nature works?

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Are we to propose that it must be the case that different mechanisms leading to collapse, robustness or no difference occur in different situations, so the narratives are real but we need more careful scientific research to specify under what conditions each happens?

Or are we to recognise that the much-rehearsed attractive narratives are all just illusions?

If we don't work out the jurisdiction of these ideas, how can we predict what the consequences of our actions might be?

Certainly, we should not keep repeating them as uncontested axioms and acting on their assumed significance.

Finally, I also question whether caring about species loss is necessarily linked to their function in an ecosystem – and indeed even questioning how we go about identifying that function.

Even if is 'there is no difference' in function, does that mean that we should not care?

The possibility does begin to appear that we might be trying to justify actions with a set of assertions which might indeed be essentially unverifiable. However, what is interesting is that they must also be simultaneously not without foundation otherwise surely they would not exist at all. But if the powerful storylines and engaging motivators containing assertions like 'fragile', 'robust', 'collapse' are easy to repeat but remain untested, how do we know the extent to which they are defensible in the face of evidence or how far are they defensible because we wish them to be the case? Testing them more could readily dismiss them in the face of evidence – and certainly contrasting meanings could not readily coexist unless their jurisdictions were specified. Maybe, even if they are unverifiable but powerful motivators to conserve, then they are good myths to have? Additionally, if the detailed knowledge is already available there to test whether these ideas are viable or not, why do commentators keep repeating them in isolation from any evidence? Certainly, the aspect of attractive narrative trap seems to apply here, but does that matter?

Not for the first time, I am drawn to the idea that we should conserve species simply because we care – and just drop the functional arguments about how things do or don't work. Does a species have to have a function before we act to protect it? However, does that stance of 'just because we care', in itself, solve anything?

I once entered into a blog discussion about removing ancient woodland to provide housing. I was lambasted by those who had to rent and were waiting for houses and said that every time there was a proposal to build houses there was some Nimby protesting about some group of

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trees – and trees are everywhere and housing is scarce. I explained about the heritage of ancient woodlands inherited from probably medieval times at least and maybe much longer than that. At least when I replied that I sympathised but that I would not destroy St Paul's Cathedral to build your house, there was no reply from the original writer, though someone else wrote that, "well, trees can be replanted", rather missing the point about our heritage of woodlands which have evolved over long periods of time. Maybe an argument about a functioning ecosystem and species could have worked equally well – but there is still a reply that that could be the case anywhere. It seems perhaps that an argument about heritage and place might be persuasive.

The stance that we care, however, indicates that when we move to thinking about how to do something to protect nature, all we have is a mandate derived from an idea which indicates the need to protect as many species as possible in as many ways as possible. That seems virtuous but proclaiming that can itself present traps and restrictions. Take any one site and, for example, do we put a fence round it and keep people out, do we engage with promoting people's well-being and livelihoods in that area at the same time and how do we manage a habitat for the widest range of species as well as the rarest and most endangered species? Which meaning do we reach for then and why? So, let us not just say 'we should conserve because we care' and abandon the world of scientific ecology quite so lightly. It does obviously have a huge amount to offer, though it is also obviously necessary but not sufficient. The better conclusion is that we should examine our values and take more care with our justifications.

If we are dealing with a powerful set of meanings which can perhaps only survive because they are attractive, the interesting question then becomes one of how such attractive meanings come into being and then how they act to mediate in our relationship with nature. This is all important because the nature in our imagination does indeed exist only in our minds but it is so very real to us – and the storylines involved can have such immense power in directing our actions. However, there should be an awareness that the unquestioning use of justificatory narratives that have limitations we are unaware of has just as many pitfalls as deliberately selecting meanings to support what we want.

The 'Balance of Nature' and Responsibility

Let's continue our discussion with the proposition that one characteristic of narrative traps is that they can be self-sustaining; their propagation

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stemming from their compelling nature and consequent unthinking rehearsal rather than in any process of verification.

It seems that part of that uncritical propagation is that they often introduce attractive or otherwise compelling value judgements to nature. A classic example is the much-rehearsed and emotive concept of the 'balance of nature' – what John Kricher (2009) calls in the subtitle to his book *Ecology's Enduring Myth.* This is a highly motivating idea, and the very word 'balance' is one we greatly value (imbalance being regarded very negatively; people are said to commit suicide when the 'balance of the mind is disturbed'). However, who can precisely define the 'balance of nature'? If we examine this concept we often find that what is commonly rehearsed as 'the balance of nature being upset' is when things simply change. The unthinking story goes that when things change, things are not like they used to be (which was of course seen as right, even sacrosanct) and it has now been altered, which is wrong (as implied by the emotive term 'upset'). Can we here not also begin to see that some senses of 'hallowed state' and purpose, even, are exercising some kind of tyranny over our thoughts? Does this matter? Should we mind?

However, if the phrase means anything at all, what the balance of nature actually means to me is that there are processes by which components of a system will tend to interact and adjust to each other in some way. Any preference for a state or indeed any virtue ascribed to these interactions and adjustments speaks to us of our own judgement. Thus, the balance of nature, if such exists, is a (value-free, unemotive) process of adjustment to changed conditions rather than a state, and as such cannot be upset – merely altered. However, we find it compelling to add our values and to seek virtue and preferences. Clinically speaking, changes only bring effects and consequences – but then we insert a value judgement on to altered states and conflate this with notions of desirability – and so often, guilt, if we don't like the change and simultaneously think that we might be responsible. I am not saying that we should not have our preferences, ascribe virtue or express desirability (e.g. for species diversity or a food chain where the vegetation, herbivores and predators appear to be adjusted to each other sustainably) – I am trying to separate the components of a more clinical assessment of what is happening from the value judgements. This I see as important otherwise the value judgement tends to cloud the observation of process. Can we separate observation from value judgement? Can we not just specify how things have changed and then pause to think about what that might mean as a

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separate issue rather than automatically reach for the somewhat mythical 'balance of nature' being upset.

Climate change is the classic upsetter of the balance of nature. As is often rehearsed, it is changing everything, things are different from what we were used to, and worse still when it is our fault. However, nature is still out there adjusting, changing, moving on – species distributions are moving around, species are adjusting to different timings of events and so on, just as they have ever done. Yes, things will be different, interactions will change, some species will thrive in one place rather than another, some will decline, some will increase – certainly many changes – but we sit there observing these differences with our value judgements about things being not what we are used to which become conflated with our assumed causal guilt.

I remember a storyline in a film that climate change might mean that some things might happen at different times than they used to, as with emergence of caterpillars and the arrival of migrant birds which feed on them. Then, things might not be synchronised as they used to be, that is, it was said that the 'balance of nature' would be upset. No, it means that things would just be different and that the situation would evolve to a new state. You could say that a 'balance' would indeed be restored – but this would be in terms of everything adjusting to the new situation. The situation is not restored to what it was: things find a new mutual adjustment – that is what balance actually means in this context. A new balance would be found in the ways things interacted differently, but not in necessarily ever going back to how it was.

Yet still we love to rehearse how climate change is upsetting the balance of nature – when in fact climate change has been a feature of the planet ever since its origin and nature has not only just been reacting to and moderating it, it has indeed been as much shaped by it as by anything else and in many ways life can influence climate by a mutual interaction.

If we wish to take responsibility for climate change, this is a psychologically comforting idea as it means we can do something about it – and find someone or a group to blame and expect them to act. We find this infinitely preferable to powerlessness. Even when something we cannot control happens like an earthquake, and if we do not ascribe this to some kind of deity, we immediately set about blaming people who might have made better predictions and built better safeguards into an infrastructure to resist the effects. We then expect them to do better in the future. We have to be in control, if not physically then at least morally.

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In terms of being able to do something, Richard Jefferies, a nature writer, wrote in *The Story of My Heart* in 1883 that nothing was subject to some over-arching entity. For this he was widely criticised for being a 'Shocking Atheist' (Harrison, 1938). Jefferies wrote: "This is a foundation of hope, because, if the present condition of things were ordered by a superior power, there would be no possibility of improving it for the better in the spite of that power. Acknowledging that no such direction exists, all things become at once plastic to our will" (Jefferies, [1883] 1938: 133).

This is the non-fatalistic, non-shrugging of shoulders and non-acceptance. He found this argument so encouraging, uplifting, inspiring and compelling when compared to fatalistic despair. It is perhaps ironic that his restricted view of such a superior power seemed to prevent him seeing that any superior power could also be responsible for the human will which he so cherished. However, the key point is that Jefferies found such comfort in being able to do something about things. My point is that similarly with climate change if it is not actually our fault then we can do nothing about it and that is so scary. However, if we don the mantle of guilt and culpability, immediately we can see the power of the route to salvation lies in our hands – and all the exhortations that are involved in the global warming meta-narrative follow.

Key Points about Meanings, Narratives and the Conflation of Observations, Preference and Value

- While scientific investigation can amass evidence and test out theories, meanings can be derived independently of this endeavour in relation to powerful stories. These narratives of meaning not only influence the way we see nature and therefore what we do to it, they can also influence the scientific endeavour itself. Attractive narratives can form a narrative trap which constrains our thinking and actions.
- Everything has a story. As William Cronon (1992: 1347) writes in 'A place for stories: Nature, history and narrative': "In the beginning was the story. Or rather: many stories, of many places, in many voices, pointing toward many ends."
- More explicitly, Harré, Brockmeier and Mühlhäusler (1999: 70) write on nature in *Greenspeak: A study of environmental discourse*: "Narratives, which appear in a variety of forms, constitute a linguistic, psychological, social and philosophical framework for our attempts to come to terms with the nature and conditions of our existence."

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- Many narratives imbue nature with what almost seems like an intentionality – as Marek Kohn (2004: 9) writes in *A Reason for Everything: Natural selection and the English imagination*: "Life is intolerable without a sense of purpose."

This all tells us more about ourselves than it does about nature. Our minds are making the meanings, as illustrated by these three quotations:

1. "The mind is its own place, and in itself can make a heaven of hell, a hell of heaven." John Milton (1667), *Paradise Lost*.
2. "We don't see the world as it is, we see it as we are." Anaïs Nin (variously attributed; commonly *Seduction of the Minotaur*, 1961).
3. "Nature is there for its own sake and not for mine, though I make it what it is for me." Trudgill (2003a) from ch. 2 in *Contemporary Meanings in Physical Geography: From what to why?*.

These points are important in the triangular relationship between knowledge, cultural imagery and action (Figure 1.8).

We like to think that there is a relationship between our scientific knowledge and our considered environmental actions (albeit tempered by political/cultural preference). However, the third mediating factor is the mental image we have of what nature is like. This, in turn, is derived from the way we are culturally situated. This image, together with all the associated narratives, is actually the most telling aspect in our relationship with nature, but it is often the most unexamined.

A further point to make here is that while value-laden ideas like the 'balance of nature' can be seen as somewhat problematic, they are also extremely useful in providing motivations for doing something. Guilt-laden notions also bring the comfort that we don't feel powerless. Thus, if we debunk these ideas we lose motivation and a sense of virtue. So, perhaps we rather like such narrative traps? Perhaps they are really rather useful, flawed as they may be? Perhaps the 'balance of nature' is a good thing and we don't need to be disabused of it?

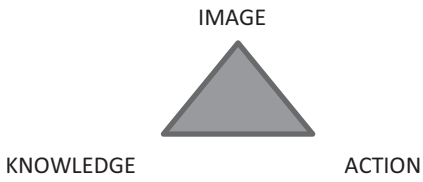

Figure 1.8 The triangular relationship between knowledge, cultural imagery and action

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The caution comes in that the actual narrative trap is that the ideas involved can be so generalised that they don't actually tell us how nature works so we cannot necessarily predict any outcome of actions based upon them. Moreover, we should think about what may be done in their name. All narratives can be manipulated to suit different purposes. For example, cutting carbon emission by cleaner energy may look entirely laudable – but is placing a tidal power-producing barrage across a species-rich tidal estuary the best way to go about it? Maybe 'use less energy' would be a better slogan than 'produce energy with less carbon'.

Actions taken may not have the desired effect at all and may also have harmful unintentional side effects. That is why we should treat our enthusiasm for acting on value-laden narratives with some caution. We should also explore in rather more depth how readily we can become trapped by explanatory narratives which ascribe values, purpose and other human attributes to objects and events. In what can be seen as a 'tyranny of meaning', in the way we look at nature we tend to conflate observation, preference and value all too easily, seeing the latter two above all else.

Discussion Points

The discussion points which have arisen include:

- Where do ideas of imagined nature come from?
- How is it that people come to hold certain views and continually rehearse an associated set of meanings?
- Does this relate to some world view, a vested interest, some educational or personal experience or what?
- How are the ideas propagated – and, given that contrasting meanings can coexist, how far are they ever tested – if indeed they can be?
- Is their untestability part of their attraction?
- Indeed, are we dealing more with some kind of 'ecological faith'?
- What are the consequences and effects of our varieties of imagined natures?
- How are they used to justify environmental actions?

The key questions are, first, where do our narratives of explanation come from and how are they propagated? Second, how do our narratives – which involve imagery, metaphors, scientific constructs and other revelations of meanings – influence our approaches to nature, landscapes and ecosystems?

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These are important considerations because when we interact with nature, the rehearsal of narratives about nature tells us the following:

1. where to look
2. what to see
3. how to behave and
4. what to do.

Justificatory narratives are a particularly interesting focus of study as they are routinely cited when deciding a course of action. Here information may be suppressed or emphasised to fit an ideological stance. There is a direct link between our beliefs, our justificatory narratives and our actions.

The American literary critic Kenneth Burke (1941) put it one way round as "stories are [or literature is] equipment for living". The philosopher Jacob Bronowski (1973: 116) put it the other way around that what we do reveals what we have in mind: "the hand is the cutting edge of the mind". For example, in nature conservation rarity seems to be valued so this is an oft-rehearsed justification for protection, with narratives such as 'unique to this area' and 'irreplaceable'. Equally there may be competing narratives of 'economic growth' and so on. What is not always predictable is which narrative will 'win' but what is certain is that we can't propose action without a justificatory narrative.

1.2 Psychogeography and Nature

Psychogeography and the Learnt Experience

I'm sitting by a pool. It is actually part of a river which gets wider at this point. To my right, where the river is flowing from, there is a bridge. The water flows through the arch and then slows down, spreading out as it reaches the pool. The water then moves rather slowly from right to left because there is little gradient in this flat land – the sea is not that far away and we are a long way from the headwaters. To my left, the water splits round a small island and then disappears behind some trees. There is lush vegetation growing next to the river. I can see that there is a grazing animal beyond the plants but I can't quite make out what it is. The plants are reflected in the water with some blue sky and clouds. The water looks quite deep. It hasn't rained lately so the river is not brown with mud but I can't see the bottom and it looks quite black down there.

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There are aquatic plants in and floating on the water and water birds dabble around on the edges.

Now what kind of place have you been imagining? Indeed, where in the world am I? What might this place mean to you? What kind of narratives do you have in mind from reading the above paragraph? Certainly, you have already compared this place to places you know. We might be in parts of Africa where the thought about the occurrence of rains would be important. There are trees, but of what sort? The grazing animal might be a moose, gazelle or bison. We could be in Siberia and it would be the unfrozen summer when the rivers flow. Maybe South America, North America, Europe, Asia? There also could be any number of significances associated with the place but given the limited description above we, the readers, are all allowed multiple readings of the site. We very probably all only have one set of associations in common and this is to do with water. The common meanings might thus involve narratives to do with life giving and survival and also possible threats: maybe it floods, maybe it dries up. Whatever the manifestations, water has very basic psychological significance which all humanity can share. We might also find many other things – maybe tranquillity or unrest. We can't really tell unless we know some more.

Let me now tell you that the plants include reeds, rushes and iris, with water lilies on the water and pondweed in it. The grazing animal is a horse. Still not that specific in terms of place, maybe? But then let me say that the trees include willows and perhaps we are feeling something more specific like northern hemisphere or a place with European influence. Add in elms, chestnuts and also some oaks in the distance beyond the grass meadows and then say the mill is just beyond the bridge and we are indeed feeling more European or North American maybe, maybe even British or English but not necessarily so; maybe it is New Zealand – I remember seeing willows planted by a river in Christchurch. But each detail adds an associative significance – a new layer of meaning and significance. Note how the type of vegetation and animal can give a feeling of location and even possibly country.

I know myself that there is a deeper place here. I might have already been reminded of Constable's paintings by the willows, mill and water so I might be in Flatford Mill where Constable painted the *Hay Wain* picture. But when I look at the elm trees I am actually thinking of: "do the elm-clumps greatly stand" and "The chestnuts shade, in reverend

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dream." And as I look to the right I am thinking: "And laughs the immortal river still/ Under the mill, under the mill?"

And of:

To smell the thrilling-sweet and rotten
Unforgettable, unforgotten
River-smell, and hear the breeze
Sobbing in the little trees.
Oh, is the water sweet and cool,
Gentle and brown, above the pool?

What is now important is whether you have recognised these extracts from a poem or not. If not what about "The yet unacademic stream?" Or:

Say, is there Beauty yet to find?
And Certainty? and Quiet kind?
Deep meadows yet, for to forget
The lies, and truths, and pain? . . . oh! Yet
Stands the Church clock at ten to three?
And is there honey still for tea?

And if you still don't know those lines the final clue is: "Ah God! to see the branches stir/ Across the moon at Grantchester!" You either now know this so well and have found the place unambiguously – or maybe you have no idea what I am talking about or where Grantchester is. If the latter I then have to tell you that it is on the river Cam, just south of Cambridge in England and I am sitting by the pool next to the vicarage where the poet Rupert Brooke (1887–1915) lived for part of his early life. Here it was indeed that Rupert Brooke dived into and swam around the pool before which I now sit. This is the area about which he wrote the poem 'The Old Vicarage, Grantchester', from which these extracts come (Brooke, 1912, see, e.g., Marsh, 1942: 97). He wrote it in May 1912 just before the First World War (1914–1918) while he sat, homesick for England, in the Café des Westens in Berlin. I am also reminded of the later poem with the lines: "If I should die, think only this of me:/ That there's some corner of a foreign field/ That is for ever England" ('The Soldier', 1914). If you still have no idea what I am talking about, this can only be a reflection on your particular cultural upbringing. For me, I have read and loved Rupert Brooke's poems and one of the first things I did when I first came to Cambridge was to make a pilgrimage to this place which, by association, means so much to me.

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So I can think of this:

In Grantchester, in Grantchester! —
Some, it may be, can get in touch
With Nature there, or Earth, or such.
And clever modern men have seen
A Faun a-peeping through the green,
And felt the Classics were not dead,
To glimpse a Naiad's reedy head,
Or hear the Goat-foot piping low: . . .
But these are things I do not know.
I only know that you may lie
Day long and watch the Cambridge sky,
And, flower-lulled in sleepy grass,
Hear the cool lapse of hours pass,
Until the centuries blend and blur
In Grantchester, in Grantchester. . . .

And the "Goat-foot piping low" makes me think of my favourite part of Kenneth Grahame's *Wind in the Willows*: 'The Piper at the Gates of Dawn' when the mole and rat drift downstream and are entranced by Pan, and I think of the biography of Kenneth Grahame by Matthew Dennison (2018): *Eternal Boy: The life of Kenneth Grahame* and how he came to write this. But nothing, nothing of this is in the scene. It is all in my mind, but is thus very real for me in this place.

So, I am sitting in a place which can be seen, by poetic association, as emblematic of what is quintessentially English. But if I didn't know the poem, I would simply be sitting by a pool, in England. Consider also there might be even fewer associations – just a bit of river we went past: we must always remember indifference as a reaction, with a complete lack of significance. Of course, it is what is in my mind which makes this place significant to me. Thus, we are reading the landscape – or a description of it – much as we read anything we come across: Wolfgang Iser describes how we read a text by taking a structure and filling in the gaps according to our histories and memories (see, e.g., Iser (1972), *The Reading Process* and De Bruyn (2012), *Wolfgang Iser: A companion*).

I have taken you through a generalised place with a generalised meaning to a more specific place, which is probably English and probably tranquil but might have other meanings – and both of these are purely visual and also related to the viewer's own experience. Then we are in a

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specific place due to a very specific association, which you will either sense or not sense, depending upon your prior knowledge. The place has meanings which grade from something any human being might sense through to specific cultural experiences which can only be learnt. These are the layers of psychogeography.

What we learnt from sitting by that pool applies everywhere. For every single moment of our lives we are in a place. Wherever we are, places can have meaning, significance and influence. Psychogeography can be defined as the effects of where you are on what you feel. This involves how your location can affect your thoughts and feelings and, equally, how your thoughts and feeling affect the perceptions of that place. Many psychogeographical writings have already focussed on the urban setting – for example on how architecture, street scenes and urban ambience inter-relate with people (Bonnett, 2003; Debord, 1956, 1977; Marcus, 1989; Pinder, 2001). Porteous (1990) felt that our visual sense dominates the experience of our surroundings, with hearing and sometimes tactile senses helping to give us a structured spatial awareness, while smell can give a sense of authenticity of place. Other authors have come to similar conclusions (Bell et al., 1996 and Macnaghten and Urry, 1998). Thus, it is the interiority of the retained image of our surroundings which becomes important in our relationship with our surroundings. Hence it is important to explore the ways in which we relate to the images of environment and nature in terms of a sense of place – and ask how we respond when the environments, nature and places change and become at variance with our retained images.

Imagine that we are back at the pool. Say I had written eucalyptus rather than elm, fir rather than chestnut, maple rather than oak. So, we could have been in Australia or Canada or somewhere where these grow – if we know it to be the case that this is where they grow. The Brooke poem becomes all wrong in these cases but consider this: if it had been originally the case that these trees were in the poem, then we would have learnt that significance and association – thus it just is a different set of ideas. There is no necessity in the association, only a specific learnt response.

But then, if the climate changes and the trees which are associated with the poem die out and any of these others start to grow in our lifetime, then is this all wrong because it is not what we have learnt? Say for the sake of argument that the climate becomes very hot and the willows die and eucalyptus grows. The poem crumbles and has less meaning: the new place starts to diminish in cultural association. This dissonance between

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what we expect and what we see may be so great that we might re-plant what was there before and try to maintain it despite changed conditions. However, young people growing up with the new trees will probably just accept them as the norm, seeing nothing wrong – and maybe find the old poem rather quaint and about what used to grow there – with no trace of personal nostalgia. They have no personal memory of former times.

This is where environmental change and the associated changes in vegetation become matters of challenges to our psychogeography of nature. How, then, are we to understand our psychogeography of nature and its relevance to nature conservation? How do we predict how we might react to change and, indeed, what is the right or defensible thing to do in the face of change? Is it just a stark choice between adapting and losing cultural associations or fighting to preserve cultural associations? That our personal associations are often learnt is evidenced by an outcry when "our open area" is forested over to grow timber which can be followed, a generation later, by an outcry about felling the trees and "losing our forests" and a call for re-planting. Our cultural associations, beyond our own experiences, obviously depend more on the heritage of literature, art and stories passed down between the generations. Here, narratives about "what it used to be like" and "natural" can often be cited. Either way, justifications for stances, attitudes and thus actions stem from a blend of personal experiences and cultural heritage.

How Have I Been Situated to Experience the Real?

The learnt relationships between the self, psychogeographic significance and nature in particular places are thus matters of dependency rather than necessity. They involve contingency and personalisation and relate to Foucault's thoughts of: "how has the path of my knowledge been determined?", "how have I been situated to experience the real" and "how have my questions been produced?" (from Bernauer, 1992 on Foucault as discussed in Darier, 1999: 224). This admits that "personal experience is a form of knowledge" (Harding, 1986: 240) and stresses the significance of 'one's own story' as revealed in auto-ethnographic studies (e.g. Reed-Danahay, 1997).

Personal stories can be difficult to generalise from, but we can venture that in our relationships with the environment, we can find meanings derived from a blend of prior knowledge, preconceptions, perceptions, reactions, feelings, emotional responses and, most importantly, associations

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which combine to give us meanings of our surroundings. This is exemplified in terms of environmental psychology by Bell et al. (1996: 45–59) on landscape perception. The relationship is very much a two-way process between perceived form and our concepts. The concepts themselves involve both generalised social and cultural responses to particular physical situations and our own individual thoughts and feelings which are derived from our own particular experiences. Both combine to condition our response in terms of what, why and how we find something significant. There are thus two linked aspects, one involving structural significance and the other concerning associative significance.

Structural aspects are concerned with the physical view before us and its spatial and dimensional configuration. This can be a response to something simple, for example, height. Where a cliff towers up, if we stand at its foot and look up it makes us feel small or, if we stand on top of it, we feel a sense of a 'commanding' view. Such basic psychological reactions are those often shared widely by humanity.

Associative significance is more personal, with a blend of shared cultural concepts and individual experiences. Involved are memories, experiences, personal and shared narratives, learned responses and mental images which make for what we find significant and meaningful in where we are. So, while we might stand at the foot of a cliff and feel dwarfed by it, we also might relish the situation, with feelings of awe and respect, or we might feel intimidated and resentful, according to our associations. Equally, we might feel exposed, visible and vulnerable on the top of the cliff or relish the prospect, depending on our narratives and contexts (for a simple example, compare the contexts of the hunted with the hunter). The view from the cliff top might be structurally complex but we might find it diverse, intricate and interesting or we might find it confusing and illegible – and just selectively pick out what we can relate to. A woodland, for example, might be a confusing, intimidating tangle or equally a pleasant accessible refuge. Such reactions involving legibility depend upon prior knowledge and existing narratives. These narratives all influence what we are selectively looking at and sensing. In short, wherever we are, we all live in our minds and it is what is in our minds that gives any significance to where we are. As we introduced briefly in Section 1.1, Wordsworth wrote on this, expressed fully as:

How exquisitely the individual Mind
(And the progressive powers perhaps no less
Of the whole species) to the external world

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Is fitted; and how exquisitely too –
Theme this too little heard of among men –
The external world is fitted to the Mind
(from 'Home in Grasmere', 1800)

Wordsworth's significance on environmental thinking is discussed by Bate (1991, 2020) and Roe (2002). A sense of association often also gives us a feeling of what is appropriate or incongruous to find and see in a particular setting. Such a sense of meaning of place is an under-acknowledged basis of many of our 'environmental issues'. The sense of being in the open air is one such meaning. One can cite Wordsworth's words from Bate (2020: 5) who feels that "the breeze was like an instrument carrying the music of nature to his inner self".

Oh there is a blessing from the gentle breeze
That blows from the green fields and from the clouds
And from the sky: it beats against my cheek
And seems half conscious of the joy it gives.
(*Prelude* I: 1–4)

It is how places make us feel – and the significance we find in landscapes, plants and animals – which is at the root of powerful emotions which drive our responses. These emotions may in turn underpin our representations and our actions.

Psychogeography, a Sense of Place and Planning Issues

The thesis is that what actually drives us is the coming together of these meanings and significances and our responses to them. Yet, when we consider, say the 'proposed by-pass through the ancient woodland' scenario, such relationships are rarely articulated; suppressed even as 'emotional'. Our emotional response is, in fact, fundamental to the means by which we relate to the environment (Milton, 2002; Trudgill, 2008) but we confuse feeling and the affective emotions with irrationality and 'being emotional'. The 'case against the road building' seems to have to rest on rarity of species or some other form of (often numerical) rationality. The non-rational, such as the way you feel about a place, is often dismissed as irrational and rarely legitimated. The 'protesters in the tree houses' are marginalised, along with their woolly hats, dyed hair and other indicators of 'fringe' values. But if emotion, feelings and meanings are fundamental, why do they get marginalised? Why do we have to have a 'scientific argument' if we want to preserve something? These

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questions are especially important because Burgess (1992) and Harrison and Burgess (1994) showed so elegantly that in a discussion of the future of an area to be developed such arguments only had institutional weight rather than public acceptance. In their studies, the general responses about the area belied a psychogeographic relationship of feelings and significances.

One can certainly conclude that what is important is how places make you feel. But if we walk with nature to feel peace, tranquillity, enjoyment and wonder, why is there a dominance of the 'rational' narrative in 'making the case for conserving nature'? Why do such narratives take over? There is a literature on the 'expert-lay divide' (e.g. Wynne, 1996) which, in its simplest form, can lament the lack of knowledge in lay people. This appears to be based on the assumption that the scientific arguments are cogent and 'right', with the inevitable conclusion from scientists that people who do not see them 'should be educated more'. Sensory responses can be dismissed as 'emotional' or at best ignored.

We could invert this and also examine the possibility that 'scientists should have more feeling'. However, the point is that they actually do have feelings, as anthropological writings such as those of Pang (1996) show (and see Trudgill, 2003b). What is actually going on is that one set of narratives, the scientific, is somehow seen as more 'valid' and therefore dominates. I would therefore like to look at the situation more fundamentally and consider the way we use narratives and discourses (Hajer, 1995), or are, indeed, used by them. Emotional responses are personal, deeper and possibly not so shareable as the rational narratives, but they can indeed be characterised and articulated, as shown, for example, by Milton's (2002) writings on the emotional response to nature and Cooper and Palmer (1998) on the spiritual engagement with nature.

This emotional response, revealed through narratives, matters critically when the environment changes around us or when we act directly to change the environment around us. If we propose an act of nature reserve management there has to be a justification: 'promoting rare species', 'removal of invaders', 'restoration' and so on abound, revealing fundamental motivational narratives such as appropriateness and naturalness (however manipulated and therefore putative). If we act on a garden it may be 'overrun', 'spreading', 'taking over', 'out of control' or we may relax and let nature take its course, but it is uncomfortable unless we give a narrative label of 'the wild garden'. Even the act of 'allowing' nature is deliberate. When, if through climate change or other reason, the environment changes around us we become distinctly uncomfortable. It is not

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what we are used to – and therefore somehow wrong. We may seek a target – find a reason, apportion blame, seek to act to mitigate or seek to counter a probable cause. Alternatively, if we are unable to mitigate the change and restore, we may become resigned and accept – but not without lamentation before we are resigned and accept. Fundamentally we place ourselves somewhere on the spectrum from one of control and 'we can't just stand by and let this happen' to one of not being able to counter 'the powers of nature' – so we adapt. But however we react, we have to have a justificatory narrative.

Within the topic of justificatory narratives I think we should try to separate analysis from advocacy. There is often an unthinking conflation of these. Analysis is about, for example, change with words such as 'increase' whereas advocacy is evident from words like 'overrun' or 'infest'. However, there is also a realisation that emotive arguments can stem equally from analytical statements as much as from statements of advocacy. Any denial of the emotions ignores the emotional processes which occur and these should be recognised.

While environmental management and conservation can be seen as 'rational' projects (Adams, 1997), it is our narratives with the associated deeper senses of meaning which are actually guiding us – and indeed also, I submit, limiting us. Making progress with environmental issues is limited by the basic assumptions we make about nature which depend on myth and deeply buried beliefs as Botkin (1990: 201) clearly felt when writing his book *Discordant Harmonies: A new ecology for the twenty-first century*: "[T]he guide to our action is our knowledge of living systems ... and our willingness to recognize the limits of our actions, and to understanding the roles of metaphor and myths in our perceptions of our surroundings." Such metaphors and myths can enrich our view, as can be well seen in art, poetry and literature, but in other contexts they can limit our view, especially, I argue, in ecological science. It is therefore important to make these narratives recognised and to examine them carefully.

1.3 Ways of Seeing Nature

Necessity and Evidentiality

We see meanings and purposes in nature when there are none: that is to say that we find or see many meanings in nature – purpose and pattern – but these are all 'readings', rather than a 'discovery' of any kind of necessity. In this context, we can cite the following from Foucault:

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[W]e should not imagine that the world presents us with a legible face, leaving us merely to decipher it; it does not work hand in glove with what we already know; there is no prediscursive fate disposing the word in our favour. We must conceive discourse as a violence that we do to things, or, at all events, as a practice we impose upon them. (Foucault. 1971: 229)

Any sense of meaning and purpose in nature we may have thus tells us more about us than about nature. In this context, we can consider a saying attributed to Karl Marx: "Men can see nothing around them that is not their own image; everything speaks to them of themselves. Their very landscape is alive." We can also cite other similar viewpoints: "We mistakenly assimilate plants into human intentional life. We are really mirroring ourselves in describing plants" (Rolston, 1997: 362) and "To enroll [plants and animals] in the emerging collective, we first need grant them ... some of the social attributes necessary to integrate them" (Latour, 1994: 801; Latour, 1994b: 60).

These writings encapsulate, in different ways, the key characteristics of the human–nature relationship. As Whatmore and Boucher (1993: 167) write: "Nature cannot be (re)produced outside social relations." So, we can't even see, let alone replicate in any form, nature outside of our social relations. However, they also add: "neither is it reducible to them". This means that while we always construct in our minds something 'out there' which we call nature, this 'something' is independent of us and is more than just our construction.

It follows that while there is a constructionist view which can be seen as 'there is nothing in nature except that which we bring to it' and we realise that we have been positioned to look at nature through a particular cultural, contextual and perceptual lens, there is no necessity in seeing the way that we do.

This realisation about a lack of necessity in the view we have is crucial. In the everyday our assumptions derived from cultural, contextual and perceptual positioning normally remain totally unexamined. This is less the case in the world of art and literature, where part of the endeavour can be explicitly to challenge such things, but this total lack of self-awareness can be marked in scientific ecology. What is then worrying is that in ecological science the underlying beliefs are rarely examined but yet they continue to guide our thoughts and actions. This much is revealed by the use of the justificatory narratives which are rehearsed when actions are proposed. The beliefs may only be challenged evidentially when nature does not behave in the way we predicted and in this

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sense our relationship with nature can be reflexive, with experience acting to modify our narratives. In art, literature, poetry and music there is no such evidentiality – there is no visible 'come-back' as we are not physically engaged with doing something to nature and seeing how it works out. There is only a conceptual engagement with nature and we may construct it and represent it on canvas, in words or in musical notes as we wish.

In many senses, however, even in ecological science and management, nature may have so much latitude that we can still retain our notions of nature when physically engaged with it irrespective of any evidence. This is because the latitude means that we can probably find something somewhere which will support and provide a justification for an action – or that a belief alone may provide justification for action. Thus, if we are pursuing an action which is based on a belief that something is true, it may be that we have no need to find evidence to support an action, that is, we act without testing our belief. Equally, we may act despite any evidence which may contradict our belief by simply ignoring it or we might see the contradictory evidence but give greater weight to the evidence which does suit our purposes.

I am thinking here again of television programmes such as the one I saw on nature reserve management which we discussed at the start of the book about the narratives that "nature is so fragile that if you remove one species, the ecosystem collapses" (implying that we should physically cherish every species) followed only a few minutes later by "nature is so robust that if one species dies out on a site, another steps in to take its place" (implying that the preservation of ecosystem functions is more important than any one species). That these narratives can coexist illustrates the latitude of nature which permits contrasting readings. The first narrative justifies conservation effort for each species. The second helps to justify, post hoc, what was perhaps an inevitable loss but it also stems from the assumed relationship between high biodiversity and greater ecosystem stability, providing a justification for conserving as wide a range of biodiversity as possible.

Another example I found was a programme on gardening when one speaker celebrated the fact that "the garden is independent of me and it is doing its own thing" while another celebrated the fact that "gardens are so good because they are the one place I can feel in control". Pictures of the gardens showed them to be not very different from each other; both looked quite well ordered and tended but the perception of similar situations related to a personal meaning. Both gardens represented refuge

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and antidote: the first speaker had a job which was managerial but felt free of responsibility and therefore relaxed in an 'independent' garden; the second was subject to the instructions of others at work but could come home and organise things how he wished.

Even when the engagement is physical, with ample evidence for success or failure in the way a nature reserve or a garden develops relative to our criteria, our notions can vary with the viewer – and remain dominant and even intact, independently of any evidence. We may indeed choose the evidence selectively to fit our narratives. Thus, if it is these underlying narratives which dominate and guide our actions I maintain that, while they are often identifiable and discussed in art, poetry and literature, they should also be examined more in terms of their role in environmental management. Botkin's (1990: 16) conclusion is that: "We must break free of old assumptions and old myths about nature and ourselves, while building on the scientific and technical advances of the past." Though I do feel moved to add here that building on science and technology is not in itself a way of breaking free of assumptions and myths.

Biophilia, Duality and Other Ways of Viewing Nature

I would also like to give room to the point of view that relates to the 'Biophilia Hypothesis' (Kellert and Wilson, 1993). This includes an exploration of the atavistic, evolutionary basis of our responses to nature. The idea of the Biophilia Hypothesis is that there is considerable survival value in finding meanings in nature which have developed through our evolution. This can be exemplified by considering a rustle in the leaves – is it the wind or a predator: what does the rustle mean? Am I under threat? Clearly the automatic questions and interpretations have considerable survival value. This may provide a fundamental point about the response to the environment by humanity in general – inescapable rather than learnt – but as with any proposition about human responses, there is much more to consider in understanding our interpretations of nature than just that.

The question of 'how do we see nature' gives rise in my mind to two dualities: first, nature which is outside us and nature as constructed inside our minds; and second, the duality of the latter constructed in both positive and negative ways.

On the subject of the first duality, one of the most powerful concepts is a sense of independent 'other' – but it is an 'other' which is subject to

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our minds. This is not the Cartesian idea of the separation of mind and body, it is the separation of both from something external, albeit that Kant would ascribe the attributes of that externality as existing in the mind. This is the idea of something which is not ourselves but which reflects ourselves and which we can see as a metaphor for our own lives. Or as Shelley put it: "nothing exists but as it is perceived" (see Cooper, 1988, ch. 7). However, the important part of this is that nature is also essentially independent of us. McKibben (1989: 54) feels that "Nature's independence is its meaning", concluding that if we deprive nature of its independence then that is fatal to the meaning of nature. Additionally, as also cited elsewhere, Whatmore and Boucher (1993: 167–168) wrote: "Nature cannot be reproduced outside social relations, neither is it reducible to them", admitting both the constructivist view and the independence of nature. Without this autonomy we cannot draw upon it and without our sense of meaning we cannot relate to it. What is outside and what is inside merge reflexively. Truly, we make nature what it is to us.

Evernden (1992: 99) expresses the paradox of internalised externality and externalised internality well: "We must remember that nature itself was *our* creation [his emphasis]" and "Nature is simply the absorption of ourselves into ... our own conception of how it 'ought' to be." He continues that the dualism between nature and culture "cannot actually be resolved, because it never existed. The dualism we fret over only exists because of our own decision." So, we value nature as independent at the same time as projecting our values, including the attribute of independence, upon it.

The second positive – negative duality – arises from nature not being human. We see in nature something which we may both shun and value because of its non-human condition. Rolston (1997) sums this up as nature being both an assisting and resisting reality. Wilderness can readily be constructed as a non-human negation of civilisation. For some, such as those who trek in the wilderness and those who immerse themselves in nature, that is a positive construct – we rejoice in the sense of other, something greater than ourselves – we sense ourselves and our small existence all the more, surrounded by an independent, immanent (pervading the universe, inherent) nature – an assisting reality. Equally there are those who see wilderness as a denial of, and challenge to, all that we can achieve through our own ingenuity – a resisting reality, as is evidenced by the American pioneers' attitudes to wilderness (Nash, 1967). Non-human nature can thus be celebrated as independent and helpful or as independent and shunned for not yielding to our will.

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Any scene of nature can be viewed in a number of ways and several writers have tried to classify our approaches to nature. Writing on landscape interpretation, Porteous (1996: 48–49) quotes Meinig's (1979) 'beholding eye' concept and cites at least ten modes of viewing the same scene, as discussed in Trudgill (2001b: 247–248). These modes include viewing a scene as nature, artefact, habitat, place and system as well as the more abstract problem, ideology, history and the artistic way of viewing. Porteous (1996: 49) also sees Thayer's (1976) notions of visual ecology useful, involving a number of levels of significance involving aesthetics, association and use, affective emotions (a scene may calm, frighten or interest us), symbolic and behavioural or activating – do you see yourself chopping a tree down or sitting under it?

Note how some of these narratives are evidential, some have an intentionality and some are celebratory – the 'reality' might be the same but the narratives of meaning differ. They tell us about the context of the viewer. The narratives need not be mutually exclusive and can move from colour and form to deeper association: when I ask a group of students for descriptors of a picture of a woodland, they usually start with the colour and form (green, leafy, branches) then, when pressed for more descriptors, they reach into their associations and memories, often of childhood, and come up with the more emotional attachments and meanings (family picnics, peace, quiet, tranquillity). It is these emotional points which are important – emotional responses and associated values prompt us into action, as in Thayer's behavioural or activating point 5, above, leading to contestations about meanings and uses.

Intentionality and the Pathetic Fallacy

Our intentionality is crucial to the construction of meanings. If we want to escape humankind, woods are wonderful; if not they might be seen as impenetrable. If we want to grow something, soil is yielding or unyielding, otherwise it is neutral and not really very significant (Trudgill, 2006). We have an idea of what we would like a garden to be like and struggle with the independent perversity of pests, diseases and uncooperative plants. Such is our intentionality, it is almost as though the plants too have an intentionality – they seem wilful, weeds sprouting out all over the place or reluctant, cherished plants not thriving, but it is us who have the will and we may characterise the plant as having a counter-will, when in fact it is just doing what it is doing. In a nature reserve we have an idea of what should be there, what is appropriate, and again we struggle to

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realise these ideas according to a variety of narratives like 'natural', 'controlling undesirable species', 'encouraging desirable species' or 'working with nature'. But even in the latter case, it is us who are doing the preferring – it is nature on our terms.

Critically, even when we do not propose to physically alter nature in some way, we still ascribe an intentionality to nature rather than just describe it. The tension between 'what is' and 'what things mean to individuals' is also writ large in the pathetic fallacy – the attribution of human feelings to objects, especially to nature discussed by Ruskin (1897: 161–177) and examined by Miles (1965) in *Pathetic Fallacy in the Nineteenth Century*. Ruskin understood the psychological importance of nature to us, attributing human characteristics to nature but baulked at an intentionality. Thus, a tree does not try to do something but it might be seen as fragile or the earth as timid. He essentially used a word-painting which involved not only the detail of description – "the lighted purple cloud . . . open sky of dull yellow above" – but objected to the "spendthrift crocus" as if the crocuses were being profligate with their blooms (Ruskin, 1897: 164).

However, the pathetic fallacy has never gone away – weather forecasters regularly describe rainy, low pressures systems as 'trying' to push in across the country but being blocked by areas of high pressure – with the hidden emotional associations that we can still enjoy the sun for a while till the depression 'wins'. Sports commentators who hope for good weather for an outdoor event say on a cloudy morning "the sun is trying to break through" which is no more than a transfer of our volitions to the weather. It does all seem very wilful of the weather systems and inescapably anthropomorphised. We do need and enjoy the stories about nature. This is very clear in nature programmes involving animal behaviour, which is so readily anthropomorphised rather than just observed. Television programmes abound with commentaries which refer obliquely or even very directly to human behaviour and morality, especially with respect to family relations and gendered activities. Out there on the African plains, the animals are doing what they are doing but interpret them we must: 'what is it doing and why is it doing it?'. We may see a programme focussed on lions, where the hyenas are robbers of their food, or we may be asked to identify with the hyenas, and the lions become a threat. The tensions between science, observation, the varied anthropomorphic portrayals of nature, the thrill of discovery and pure entertainment are well rehearsed by Davies (2000) in her study of post-war British natural history television: *Science, Observation and Entertainment*. In some

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senses there is nothing wrong with anthropomorphism as it engages our emotions in a way that identifies with other living creatures and when we can see that 'we all have something in common' there is great appeal which can only be good in terms of conservation motivation. The professional biologist has a hard job to study animals in a way that is unsentimental and detached from identification with the subject and the ready narratives. There is a good example of this in *Brazzaville Beach* by William Boyd (1991) which has an account of a zoologist who finds cannibalism in chimpanzees, which no one wants to believe – the independent reality clashes with our cherished narratives, the facts embarrass our values and are suppressed.

Here the language we use in our narratives is very revealing of our perceptions (Mühlhäusler, 1995, 2000). An intentionality is so often ascribed in terms such as 'invasive species' (Mooney and Hobbs, 2000) and 'aliens' when there is simply a conflict with our ideas of what things should be like. Our sense of 'what ought to be there' is as strong as our imperative need to interpret with a narrative. In this context I believe that the excellent book by Harré, Brockmeier and Mühlhäusler (1999) entitled *Greenspeak: A study of environmental discourse* should be compulsory reading for all biological scientists; only then would they become more self-aware both about the language they use and about the ways their science can be taken beyond their original intentions (see ch. 3 'Rhetorical Uses of Science' in Harré et al.).

As a further point, I would add to both Meinig's and Thayer's categories discussed above a final way of viewing and that is 'indifference'. This is actually a critical point to add since it implies a *lack* of motivation – something is not seen as significant at all and therefore there is no reason to interact with it in any way whatsoever. It provides a narrative nonetheless: 'conserve it, cut it down, whatever – it is of no matter to me'. We should not forget this aspect as it means that any attempt at motivation, in whatever direction, will 'fall on stony ground', as it were: the point or view may be received but it will be ignored or at least minimised and marginalised.

Where this gets us is that if our epithets and narratives tell us more about us than about nature, might we not be getting it wrong sometimes? But how do we tell that – and who is to judge? This matters if we propose to take some action, or even simply whether to care about nature or not. How do we tell what is an appropriate construct – and by what criteria? Is it just that actions might not give the results we expected – and so we have to change our ideas? But do we change them

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that readily? Narratives matter as they constrain and justify how we see and what we do. The study of the narratives of nature thus matters philosophically in the sense of how we are limiting our seeing and also in very real terms of how we treat the environment. The rest of this book is dedicated to exploring these questions. How we relate to nature in terms of ourselves, our sense of place and our psychogeographic perceptions lies at the heart of environmental meanings – and at the heart of environmental philosophies and the way we treat and purport to manage the environment and environmental change.

1.4 Chapter Summary

- Values and meanings give us reasons to want to cherish something. The meanings vary widely, but meanings there have to be. Hence the subtitle of the book: *Perspectives on Meanings and Motivations*. Meanings are the key to motivations.
- Nature is just doing what it is doing; things exist because they can. It is us who bring a sense of value and purpose: there are no meanings in nature other than those we bring to it.
- There are 'lenses' through which we are looking at nature, giving us our meanings of nature. We should realise that they are there, rather than just looking through them. Various authors have written about this:
  - '*Kulturbrille*': *Kultur* ('culture') and *brille* ('glasses' or 'spectacles') or 'culture-glasses' – a term used by Franz Uri Boas (1858–1942) to mean acquired cultural associations ("lenses") that shape an individual's perceptions.
  - Evernden (1992): 'conceptual imprisonment': referring to the transformations, inspirations and constraints which our ideas bring to nature.
  - Feyerabend (1999): 'Understanding a subject means transforming it.'
  - Foucault's question: 'How have I been situated to experience the real?'
- We emphasise the importance of stories – or narratives – in giving forms of understanding and meaning, including the imperative of the explanation. Marek Kohn (2004) encapsulates this in the title of his book on evolution: *A Reason for Everything*. There 'has to be a story' – and we emphasised the power of narratives in terms of the consequences which stem from holding them, such as seeing nature as 'robust' or as 'fragile'.

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- The awareness of assumptions, constructs and narratives of meaning should mean that we do see that there are conceptual frameworks which might constrain us. This awareness should mean that we realise that not only are there consequences deriving from different conceptual frameworks, but also that we do have a choice of the conceptual frameworks which we hold.

https://doi.org/10.1017/9781108961059.004 Published online by Cambridge University Press