

## To know the world we need to ‘walk the land’\*

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Let us begin where environmental philosophy, my own discipline, first began, with the problem of anthropocentrism, that long-standing condition of moral myopia with which Western thought has been historically afflicted. Anthropocentrism consists in seeing human beings as the sole locus of moral significance, the centre and exclusive compass of the moral universe. Let us approach this problem as a problem of knowledge, and consider whether it will be resolved simply by increased knowledge, and specifically by increased scientific understanding of the nature of living things.

In this connection it is worth noting that prevailing Western assumptions about the nature of living things do seem currently to be undergoing rather rapid transformation. The new ideas are moreover no longer just the province of activists, such as the young climate strikers, or of writers and artists, or of relatively marginal academic discourses, such as environmental philosophy itself and the environmental humanities more generally, or of religious trailblazers such as Pope Francis. They are also now emanating from what is epistemologically the very core and driver of modern civilisation, namely science itself.

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Recent developments in plant and animal sciences are opening windows into exciting new worlds of nonhuman intelligence and consciousness. Leading neuroscientists, for example, have declared that many species of animals possess the same basic neurological substrates that generate consciousness in humans. Neurology pertaining to emotions in particular is found in a wide range of species. Animals which are neurologically wired in this way must, these scientists insist, experience the same emotions and associated states of consciousness as humans, including fear, terror, jealousy, and grief. Even entomologists, such as eminent conservation scientist E.O. Wilson, describe certain species of ants and bees as literally learning from experience and making decisions.<sup>1</sup>

In recent years, a number of botanists have gone further still by ascribing mind, or at any rate mind-like properties, to plants and perhaps to fungi. We have all heard how trees in forests, for instance, communicate with one another via electrical and chemical signals transmitted through underground mycorrhizal networks.<sup>2</sup> Mature, healthy trees also deliver nutrients and water through these same networks to trees in need and can warn neighbours of imminent dangers such as insect attacks. In experiments, botanist Monica Gagliano has shown that plants can 'learn' to distinguish between relevant and irrelevant stimuli and will 'remember' what they have learned for extended periods.<sup>3</sup> Not all botanists agree with such interpretations of the experimental findings, but these interpretations are being widely discussed.

But will such scientific findings transform social attitudes towards the biosphere? Will they lead us out of the exploitative attitudes that are currently ravaging life on Earth? Will they, in other words, expand the moral horizons of the industrial world? Will acknowledging that the mental lives of animals, plants, and perhaps other life forms are on a par with our own mental lives induce us to embrace them as fellow beings as morally considerable in their own way as ourselves? Do these new sciences mark a turning point in our Western attitude to the natural world, a point at which we will give up our old anthropocentric habit of treating nature as a mere stock-

pile of resources and begin to see it instead as a vast and variegated manifold of mind that deserves to be treated with full respect?

If we rely *exclusively* on science as our ultimate ‘reason to believe’, as many industrialised and particularly Western societies do today, then perhaps not. Modern industrialised societies rely exclusively on science in the sense that, for them, science retains the ultimate authority in matters of ontology. Views about the nature of reality do not qualify as legitimate in such societies unless they are sanctioned by science. Those which diverge from science may be tolerated at a private level but will not be adopted as a basis for policy until they square with science. As long as science retains this authority as the ultimate arbiter of reality, societies will be likely to continue subordinating the rest of nature to human interests. They will, in other words, continue to suffer from the moral blindness of anthropocentrism because, despite the wonder and intellectual excitement occasioned by the new scientific findings on mind in nature, nature will still not register in these societies as emotionally salient. Or so I wish to argue here.

On what basis do I argue this? Why do I want to suggest that science will not only fail to change our moral orientation to the world but may even reinforce our present anthropocentric orientation? By way of answer, let us first dig down a little into this notion of ‘moral orientation’. On the face of it, a consensus amongst scientists that animals and perhaps plants are aware of their environment and disposed to act purposively in relation to it would imply that they have ends and meanings of their own. They would therefore count as ‘subjects of a life’ or ‘teleological centres of life’, rather than mere mechanisms or objects.

If, as much moral philosophy suggests, being the subject of a life or a teleological centre of life rather than a mere object is a basis for moral attribution, it rationally follows that animals and plants ought indeed to be entitled to moral consideration.<sup>4</sup> And although many people, including scientists, might be prepared to concede all this in light of emerging scientific evidence, this rational stance might not be reflected in the way those people actually behave towards plants, animals, and ecological communities generally. A gap may persist

between the way they act towards other people and the way they act towards members of non-human species. At the more inchoate level of lived consciousness—the level of consciousness at which cognition is thickly infused with emotion and desire—people may, in other words, despite their rational convictions, remain morally invested mainly in humans even while rationally conceding the moral considerability of non-human beings.

This disjunction between the “facts” discovered by science and our moral *orientation* to these “facts” arises, I would suggest, from science itself. It emanates from a distinction between what science reveals about the world “out there”, which is to say the “facts”, and the attitude it imposes on us as knowers in relation to these “facts”. For in order to obtain the facts, we must pursue a method that involves, as its very first principle, a stance of neutrality. The scientific knower must step back and assume the viewpoint of a detached observer, setting aside not only his preconceptions but his own agency and any self-interested or emotional investment he may have in the phenomenon under investigation. This phenomenon—whether it be a rock, molecule, mouse, rainforest, or gravitational field—is to become, for the purposes of the inquiry, an object or domain of purely intellectual interest to him. His goal is to perceive it just as it is in itself, undistorted by his preconceptions or projections or indeed by any attempts of the object itself to influence his representation of it. This stance of detached neutrality is key to the guiding ideal of “objectivity” which is so characteristic of scientific knowledge and is the linchpin of its authority in society.

Let me elaborate just a little here on this stance of detached neutrality and how it is reflected in the scientific method. In order to ensure that this stance is achieved, and that the requirements of emotional and value neutrality are met, science imposes conditions on the kind of evidence that may be used in support of scientific theories. Such evidence must be empirical and in principle universally accessible. It should not, for example, be accessible only to persons with special, *e.g.* mystical or supernormal epistemic powers or faculties. Nor should it consist in inherently one-off occurrences. For the findings of one investigator must in principle be open to the

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scrutiny of others if subjective distortions in those findings are to be detectable.

In other words, the observations used to support a scientific claim must be *repeatable*. Other investigators, in different circumstances and of different backgrounds, must be able to make the same set of observations for themselves. This methodological requirement of repeatability in turn gives rise to a preference, within science, for the experimental method. By making observations within the controlled conditions of a laboratory, an investigator is more likely to be able to satisfy the requirement of repeatability than if she simply observed events in the field. For other investigators can in principle set up the same conditions in their own laboratories, thereby verifying or falsifying the first investigator's findings. In this way the scientific aim of achieving objectivity by eliminating subjective factors from the inquiry leads to certain, broad methodological norms that are basic to the self-understanding of science.<sup>5</sup>

In focussing here on the epistemic stance of detached neutrality in science, and the correlative norm of objectivity, I am not setting out to discredit science. In important respects this stance is valuable, inasmuch as it offers a rigorous antidote to epistemic bad faith—to the bad faith that consists in believing whatever one wishes to believe, in projecting onto the data one's own wishes, biases, personal interests, or ideological fantasies. In the political climate of irrationalism, 'alternative facts', spin, 'fake news', and general epistemic irresponsibility that is currently rampant in many parts of the world, the norm of scientific objectivity must surely be steadfastly defended.

At the same time, however, we need to recognise that detached neutrality as a basis of epistemology has a price: it cuts us off affectively from the "object" of our investigations. As a way of knowing, it distances us emotionally and psychically from the known by requiring that we separate ourselves from the object for the purposes of the investigation, seeing it as totally "other", in no way implicated in the fabric of our own existence. Only in this way, according to the assumptions shaping the epistemology of science, will it be pos-

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sible for the knower to divest herself of subjective investments in the object that may distort her representation of it. Accordingly, regardless of whether or not her investigative findings show this “object” to be endowed with mind, as a scientist she will necessarily remain affectively removed from it, unmoved by it.

To point this out is not, of course, to say anything new. The ideal of objectivity in science has been critically debated from a variety of disciplinary perspectives over many decades. The part of this debate that I am picking up here is not the question of whether science can live up to its ideal of objectivity. Clearly it cannot live up to it fully, since there are values and aspirations built into the very project of science itself, and indeed into human cognition *per se*. But that is not my point here. For the purposes of the current argument I am content to allow that, through its distinctive methods, science can indeed achieve, to a significant degree, the form of objectivity to which it aspires. My point is rather to draw attention to the moral consequences of this way of knowing for the “objects” that science purports to know.

These consequences were brilliantly analysed by a whole school of feminist philosophers of science in the 1980s and 1990s. I do not have space in this essay to set out the details of this analysis.<sup>6</sup> Suffice it to say that for centuries, as this analysis has shown, the objectifying tendency inherent in scientific epistemology led it to construct nature literally as an object, one entirely devoid of mind, incapable of engaging intersubjectively with the knower. That is to say, the epistemology of science was subconsciously projected by scientists as ontology. Nature was understood to be nothing but an elaborate mechanism moved not by any inherent meaning and value, but only by cause and effect. Now, at last, science is starting to discard those old projective blinkers. It is discovering that the natural world is in fact full of minds—animal minds, plant minds, fungal minds, forest minds, and perhaps a Gaian mind. Exhilarating as this discovery is, however, it is still essentially a matter of merely intellectual interest, a division of science, part of a larger architectonic premised on affective detachment. As such, it is unable in the end to make animals,

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plants, fungi, or indeed anything emotionally or psychically salient to us.

This disconnect between scientific cognition and affective engagement is dramatically confirmed when we consider that the Cambridge Declaration on Animal Consciousness of 2012—the declaration by leading neuroscientists that many animal species share with humans the same basic range of emotional experience—has made no appreciable difference to the way science-based societies treat animals.<sup>7</sup> They continue to be systematically exploited and killed on an industrial scale to serve human interests.

Again, in making this point about science I am not denying that in a world of seven and a half billion people, science as a tool of economic production and environmental and climate repair remains indispensable. But if modern humanity is to become properly morally *invested* in the lives of other beings and larger life communities, it seems that something more than the kind of cognition involved in science is required. Those lives and communities must matter to us, and for them to matter to us we may need to complement science with other, more engaged ways of knowing.

What other, more engaged ways of knowing are there? This is, again, a question that may be explored from a variety of different philosophical perspectives. In an Australian context, however, one approach seems particularly salient. For in Australia we are of course lucky to have on hand teachers of supremely engaged ways of knowing—ways that intrinsically lead not only to detailed empirical knowledge of one’s natural environment but to a sense of intimacy and connection with it. I am speaking about the ways of knowing described by many Aboriginal authorities.

In her deeply insightful book, *The Land is the Source of the Law*, Indigenous scholar Christine Black offers perceptive interpretations of texts by Senior Law Men (SLM) such as Bill Neidjie of Kakadu in northern Australia and David Mowaljarlai of the Kimberley in northwestern Australia, amongst others. As both these Senior Law Men emphasise, Aboriginal ways of knowing cannot be extricated from *feeling*. One arrives at such knowledge not by adopting the stance of a detached observer, but by, as Mowaljarlai puts it, ‘walk-

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ing the land’—meaning not merely walking over the land, traversing it, but walking with it, entering it. Indeed, knowing in this way is not a matter of adopting a “stance” at all, of stepping out of the sphere of action to take up a “standpoint” from which the action can be passively watched; it is rather a matter of diving into that sphere, stepping into the midst of it, joining forces with it.<sup>8</sup>

Guided by the interpretations that Christine Black provides, I take SLM Mowaljarlai’s phrase to mean that we should walk the land not merely in a literal sense but in a paradigm-shifting epistemological sense as well. Rather than stepping back from the land, we need actively to *address* it, engaging with it communicatively, both as a member of its community and as a collaborator with it in shared endeavours. Such community membership and collaboration will certainly require empirical attentiveness on our part—we will need to pay close attention to the dispositions and behaviours of everything around us and become alert to signals of social intent. We shall also need to be attuned to larger shifting patterns of circumstance and meaning. ‘Walking the land’ thus does call for powers of perception free of distorting filters, and in this sense it calls for a form of “objectivity” on our part. But, in this case, objectivity emanates not from detachment but from relationship: we seek to engage the land by interesting it in ourselves. We do this partly by opening ourselves communicatively to it, for example via ceremony, and partly by joining with it in shared ends—ends that serve its interests as well as our own. To be able to join with it in shared ends in this way, we must be able to identify those ends accurately, without prejudice. If we succeed by these means in slipping into relationship with the land, we may hope that it will respond to us in self-revelatory ways that will remain forever hidden to the detached observer. We may come to know it, in other words, far more deeply than the scientist can.

While SLM Mowaljarlai does not describe what it is like qualitatively to experience such responsiveness, a hint is provided by Frans Hoogland, associate of another Senior Law Man, Paddy Roe of the Kimberley, and an initiated Lawman himself. In the Kimberley, as Hoogland explains, there is a term for such attunement to the

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communicative aspect of country: *liyan*. This term signifies a visceral way of knowing through feeling that is shared not only by people but by all beings and by land itself. Frans, in dialogue with Paddy Roe, explains *liyan* as follows.

In order to experience [this feeling], we have to walk the land. At a certain time for everybody, the land will take over. The land will take that person. You think you're following something, but the land is actually pulling you. When the land starts pulling you, you're not even aware you're walking—you're off, you're gone. When you experience this, it's like a shift of your reality. You start seeing things you never seen before...all of a sudden, [your old way of seeing] doesn't fit anything. Then something comes out of the land, guides you. It can be a tree, a rock, a face in the sand, a bird...Then another thing might grab your attention, and before you know it there's a path created that is connected to you. It belongs to you, and that is the way you start to communicate with the land, through your path experiences. And that path brings you right back to yourself. You become very aware about yourself. You start to tune finer and finer. Then you become aware that when you're walking the path, it's coming out of you—you are connected to it...[When this happens] we get a shift in mind that drops down to a feeling. Then we wake up to feeling, what we call *le-an* [*liyan*] here, and we become more alive, we start feeling, we become more sensitive. You start to read the country...Then you wake up...and the country starts living for you. Everything is based on that feeling *le-an* [*liyan*], seeing through that feeling.<sup>9</sup>

If I understand Hoogland aright, *liyan* is a faculty of cognitive feeling that allows one to sense the world as subtly opening or closing, according to circumstances, as one walks the land. This sensitivity is a matter of *feeling*, not only inasmuch as it is guided by intuitive, body-based awareness but also in a more affective sense. One leans into the openings or, in face of resistances, one steps back and adjusts one's behaviour, simply because it feels right, affectively speaking, to do so. It feels right to find oneself in a groove—to find oneself slipping into a yielding flow of circumstances; a groove which it would be discomfiting to resist.

In time, one may so develop this faculty of awareness that it informs one's daily dealings. Which direction should one take when one is walking on country? With whom should one associate on country? How should one comport oneself on country? One's feeling for country may come to guide one's steps, one's choices, in the

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most minute of particulars. To be accompanied by country in this way, to be in such mutually responsive moment-by-moment attunement with it, of course does not leave one unmoved. On the contrary, it may pierce one through and through, shifting one on one's metaphysical moorings, rearranging one's entire hierarchy of allegiances and loyalties.

To dwell consistently in such a state of attunement is to match a more general definition of *liyan* as the wellbeing that radiates from one's core when all of one's relationships—with country, community, culture, and oneself—are in balance.<sup>10</sup> Being in balance, in this context, might be understood as a state of existing and acting in tune with a deep inner “Ought”, a “right way” which is not some contingent social convention but an alignment with a normative axis at the core of reality, a normative axis that is, in Aboriginal parlance, referred to as Law.<sup>11</sup> Because acting Lawfully is not acting out of “conscience” or “duty” but out of visceral feeling, which is both cognitive and affective, Law is self-validating and self-enforcing. It is not, as Western law is, a set of rules or conventions imposed on us from without and designed to thwart our will or restrain our inclination. It is rather, once we have developed a feeling for it, coincident with our own deepest will.

Another research team based in the Kimberley summarises *liyan* as follows:

It is our moral compass, our intuition, which guides us through life. *Liyan* can teach us to feel and build our own relationship with Country. *Liyan* is our inner spirit, and when it connects with the spirit of Country it heightens our sense of wellbeing, of balance and harmony. Country has this *liyan* too, and it is reciprocal... We all have this capacity.<sup>12</sup>

As both Hoogland and Mowaljarlai emphasise, to awaken this faculty we have to walk the land, not merely in a recreational sense as hikers or tourists but in an agentic, addressive, collaborative sense. It was natural for Aboriginal people to walk the land in this way because they traditionally lived off it, and therefore needed to be intimately attuned to its affordances. By the same token, they needed to be accurately apprised of its interests in order to ensure,

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by means of a suite of highly skilled interventions, its continued ecological flourishing. Walking the land, in other words, was integral to their basic economic praxis.

But the praxis of modern industrialised societies, shaped as that praxis has been by the detached epistemology of science, is far removed from this two-way relationship with land. Everything we do in industrial societies—the entirety of our economic effort—reflects the detachment and hence the instrumentalism of the scientific attitude. Does it not follow, then, that as members of such societies we are locked into this attitude, and hence locked out of the moral experience of ‘walking the land’? How can we possibly, as members of modern societies, recover the faculty of cognitive feeling, known in the Kimberley as *liyan*, that would reconnect us at the level of feeling to our natural environment, rendering its needs as transparent to us as our own?

In this essay I can only offer pointers towards an answer to this question, pointers which I have developed elsewhere.<sup>13</sup>

My first suggestion is that, although it is impossible for seven and a half billion people to return to the pre-industrial, in some cases even pre-agrarian, economic praxes of Aboriginal Australia, there might be other practices that could involve us as participants to some degree in the life of the land. I am thinking here of practices of private conservation. If people, individually or in small groups, routinely cared for land as part of their regular lives—through hands-on, *in situ*, on-the-ground practices such as planting, seeding, weeding, thinning, restoring soils, and selective burning—they would likely become intimately acquainted with the ecology of a particular place, not merely theoretically but corporeally. In consequence, they might become more attuned to the responses of that place to their efforts. Such a process, requiring sensitivity to both the pushback and the receptivity of land to one’s interventions, would take time. But given time, one’s eyes might gradually become opened. Once attentive to all the specific forms of life and being that arise in a particular locale, as well as to their interrelations, one might find oneself drawn into ever-deepening relationship with the ecosystem or ecosystems in question. The land might indeed begin

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to open to one, to come alive, and a whole new horizon of relationship, presence, communicativity, enthrallment, mystery, and indeed revelation may come into view.

If this is to happen, however, it is vital that this very personal, hands-on practice of conservation be carried out in a particular place, and with continuity over the long term. It should preferably be practised over the term of one's entire life, so that genuine trust and rapport can develop. It may also have a better chance of success if the individual practitioner is part of a group of equally committed conservation practitioners, all caring for the same place, sharing their resources, discoveries, and insights. This would add an element of *affiliation* to the practice. Affiliation is surely key to human identity and will for this reason help to give the practice of conservation an existential force perhaps comparable, as a shaper of consciousness, to that of economic praxis. The practitioner's developing relationship with land will be extended into relationships with a congregation of fellow landkeepers, all with a sense of belonging to the same place. Finding one's way into such a close-knit terrain of relationships, not as a note-taking outsider but as a committed insider, might indeed in due course help to place one back *inside* the world, morally speaking, rather than leaving one stranded as a curious but neutral observer outside it.<sup>14</sup>

My second suggestion is that we could try to ensure that, in settler and other societies in which pre-industrial land traditions are still strong, those who are professionally responsible for the conservation of public lands are no longer trained exclusively in science. They could also be inducted into alternative local epistemologies by traditional knowledge-holders. I have described this elsewhere as a process of Indigenising conservation. If this were incorporated at an institutional level as an essential component of conservation education, we could expect to see profound moral shifts in conservation priorities and policies. These shifts might in turn be expected to have ripple effects on attitudes to the environment, and indeed to reality itself, throughout society.<sup>15</sup>

## Notes

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- 14 Freya Mathews, 'Walking the Land' (2020).
- 15 Freya Mathews, 'Environmental struggles in Aboriginal homelands' (2021).