

6

Attentive Subjects

Jessie Wirrpa was a good hunter. Everybody wanted to take her on their fishing trips, or go on her fishing trips, because they knew they would be fed. Nellie Narambin and I went fishing with Jessie one day at a waterhole in the Wickham River not far from Yarralin. To the astonishment of all three of us, Jessie caught nothing. When we decided to quit, we built a little fire and boiled a billy before heading back to camp. Nellie went up to the top of the bank to wait in the truck, as she was disgusted and keen to leave. Jessie and I sat on the lower bank and drank our tea. The fire died down rapidly; we had made it from paperbark—poor firewood, but handy, and good enough for tea. The coals and ashes were still hot as we sat there drinking, and the little *nini* (zebra finches, *Taeniopygia guttata castanotis*) came down to investigate. Four or five of them gathered around the fire, moving closer and closer, until one of them pecked at a black stick. It jumped back and flew away, and the whole mob left. Then another mob came, or more probably it was the same group again. One of them pecked at a hot coal, and they rushed away again. Jessie spoke to them: ‘Don’t come too close, that fire still hot.’ And when they came back she told them: ‘Wait now, let im cool down first time.’ When one of them stepped on a hot coal, leapt back and flew up into a tree, she spoke to it directly: ‘I told you to wait a bit.’ To me she said, ‘Poor little bugger,’ and she was chuckling as she spoke. They were wanting charcoal, she said, to take away to their camp.

The stillness and closeness of our bush camp became a communicative place. The way the birds would return, startle themselves and rush off, only to return again, had us laughing even before Jessie spoke to them. The moment lingers vividly in my mind. The liveliness of the world provokes an enlivened sense of one’s own presence. Communication

crosses intersubjective space, generating a particularly generous quality of interaction and sociality. Perhaps it does not always work this way, but that is the way it was with Jessie.

Nini are beautiful little birds, a soft fawn colour, with a black tail banded with white; their beak is orange and is circled with black. They do not speak English, it seems. If they had understood Jessie, they might have stopped trying to pick up hot coals. But to say that they do not speak English is not to say that finches do not communicate. They hang around water and can never be far from a water source. On another occasion Jessie said: 'He'll show you water. You hear im and follow im to water.' Some sources of water are very small, just a little rock hole, or a small crevice where the water flows. *Nini* are the ones who know. Snowy Kulmilya told about a time when he was walking in the bush with one old man who knew the Country. The old man said there was water there, but the ground was grassy and nothing could be seen.

'Yundupala [you, specify] know any water here?'
That old men been tellem [asking] us. 'No. I don't know.' 'You can't see im creek here? No? Well, should be here somewhere.' When im been see im that bird *nini*, that bird [sings out] *niiii niii* [onomatopoeia]. Well water somewhere. 'Ah, must be there' [he said].
[He] Opened up that grass, there water now.¹

The actions of finches tell of water, and with their alert and nervy action they also tell of other presences. When emus come in for water, they stop to listen, and if the little birds are not calling out, they know they should stay away because there are people there. When the emu drinks, the little finches warn if somebody is coming. They are mates. Allan Young explained:

That emu don't go la that water there straight away, he going to wait [till] that bird going to sing out to im. Gonna sing out la im, all right, well [that means] no man. Well im run and drink the water [then] ... That's the *ninipi, nini, ninipi*. That's the bird now. He [emu's] going to wait for im ... to tellem im.²

1 Snowy Kulmilya, tape 90, recorded at Yarralin, 27 July 1986.

2 Allan Young, tape 56, recorded at Yarralin, no date recorded.

On top of that, *nini* birds ‘give you the time’. According to Daly Pulkara, when they start crying, that means it is time for getting emus. The hunter has to hide and wait until the *nini* tell the emu it is safe. The first time he drinks, you let him drink, Daly explained. Second time he’ll shut his eye, and that’s the time you kill him.³

When the *nini* ‘give you the time’, in Daly’s words, they are also telling you that hot weather is here: ‘Hot weather he starts crying. That’s his time.’ These birds are linked to the dry time of year, which is also the time when cold shifts to hot. When the shift comes, the *nini* tell you.

Hot time, cold time

In the monsoonal tropics of North Australia life responds to both sun and rain, can live without neither and is always working to avoid being overcome by one or the other. In the dry winter you can perish for lack of water; in the wet summer you can drown. Table 6.1, indicating mean rainfall over the course of the year at Victoria River Downs (VRD), shows mean variation.

Table 6.1. Mean rainfall (mm).

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
147.8	148.6	107.0	33.3	5.9	2.1	2.9	1.1	4.5	17.5	59.6	113.6

Source: Bureau of Meteorology. Online: www.bom.gov.au, accessed 2003.⁴

Table 6.1 cannot show the great variation that occurs from year to year. Tables showing maximum and minimum monthly rainfall show the contrast (Tables 6.2 and 6.3).

Table 6.2. Highest monthly rainfall (mm).

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
781.4	540.4	456.5	254.0	59.2	27.5	75.8	42.7	68.2	97.6	220.3	302.2

Source: Bureau of Meteorology. Online: www.bom.gov.au, accessed 2003.

Table 6.3. Lowest monthly rainfall (mm).

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
13.4	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: Bureau of Meteorology. Online: www.bom.gov.au, accessed 2003.

³ Daly Pulkara, notebook 37, 141–42.

⁴ These and other weather details are as of 2003—eds.

Because the rain is concentrated within a few months, the effects linger into the next season. In the dry season of a year following great rains your vehicle could get bogged in the soupy undersoil of the waterlogged plains, and you could die of thirst before you could get help. In the dry season following a low rainfall wet, the country becomes desiccated and remains so until the rains bring it back into growth.

Sun and rain are the two great divisions: they mark out cycles of return, and they push against each other to gain ascendancy. These are the powers that bring forth life. Rain is located at Rain Dreaming sites, and at Rainbow sites. The travelling Rain Dreamings come northwards out of the desert, and in the Victoria River Country every permanent waterhole is said to be the home of a Rainbow Snake. People usually refer to them collectively as Rainbow, and Rainbow also references most underground water. The Sun is located along the track and at the sites of its Dreaming travels, one of which is located at Yarralin.

A consideration of seasons has to start with sun and rain. Since any starting point is arbitrary, I begin in mid-year of the Anglo-Australian calendar, which is also mid-winter in the temperate zones of the southern hemisphere, and mid-dry in tropical Australia. This is the cold time of year; the sun is working, and slowly it heats up the Earth. The Earth becomes hotter and hotter, with increasing temperatures and humidity. The rain breaks the intense heat of this time of year. With the rains, the rivers start to flow again; the ephemeral waters are replenished, green grass grows and life starts to flourish. By the end of a good wet season the country is well watered and lush. The end of the rain is brought about by the big winds that bring cold weather. The sun gains ascendancy and begins to dry out the Earth and the waters, and to warm the Earth that has been cooled by rain and wind.

When I asked people about the onset of rain, I was always told that the flying foxes tell the Rainbow. In the cold time of year, the flying foxes are in the 'top country' away from the rivers. As the sun dries the country, they move toward the river, and when they get there, they hang in the trees over the river and call to the Rainbow Snake to rise up and bring rain.

This story can be fleshed out, because while there are Dreaming origins for the relationship between Rainbow and flying foxes, and while these relationships articulate some of the main social categories that bind human and animal species into groups of shared flesh (Chapter 4), there is an ecological side of the story as well. Flying foxes feed by preference on the blossoms and nectar of eucalypts. Yarralin people point especially to the inland bloodwood

(*Corymbia terminalis*) and the magnificent tree known in vernacular English as the half bark (*C. confertiflora*). Both species produce large, showy and heavily scented flowers, so they are obvious candidates for both flying fox and human attention. The large showy flowers are a vivid announcement of a more subtle process. In the Victoria River region, eucalypts flower in succession from higher ground to lower ground, which is also to say from the drier Country on the hillsides down to the riverbanks and channels. Jessie Wirrpa divided the eucalypts into those which flower in the dry time and those which flower in the rain time. *Jartpuru* (bloodwood, *C. terminalis*) and *ngurlkuku* (half bark) are among the prominent dry time flowerers, along with several other species including *yarirra* (smoke tree, *Eucalyptus pruinosa*) which grows out on the dry flats and up the lower reaches of stony hills, and *wulwaji* (coolibah) which grows around billabongs. *Timalan* (river red gum, *E. camaldulensis*) is the outstanding example of those which flower in the rain time, and the *pakali* (river melaleucas, *Melaleuca argentea* and *M. leucadendra*, paperbarks) flower then as well. Along a big river like the Wickham the banks are lined with paperbarks and river red gums. They burst into flower just before the rains come. Jessie's observation of the succession of flowering among eucalypts is, of course, consistent with the observations of ecologists who also note that the eucalypts within a given area flower at different times (Springett 1986, 148–49).

The flying foxes follow their preferred food, and it brings them to the riverside just before the rains; they forage there in the thousands. Yarralin people say that the flying foxes talk to their mate the Rainbow, telling it to move, to get up, to get to work, to bring the rain. They say that the Earth is getting too hot, that everything is too dry. We see here a sequence of communication events: the flowering of the eucalypts is triggered by each species' own internal 'time' and its response to local conditions. The flowers are food for the flying foxes, who then follow the succession of flowers. Their presence at the river to eat the flowers of *E. camaldulensis* (and melaleucas) thus constitutes an event that signals a particular moment of seasonal succession: there will not be any more eucalyptus flowers until the rains come and revitalise the Country.

Flying foxes are joined by a chorus of others, all telling the Rainbow to move and act. The Rainbow listens and rises up; it towers over the Earth, emitting lightning, thunder and rain. People, too, may add their songs to the multitude of voices demanding rain. In addition, the first rains start to create the moisture that moves back into the sky, forming more clouds and rain.

The flowering and fruiting, the new leaves and new plants are all part of the seasonal shifts, and each shift enables some further shift. Thus, when the flying foxes get to the riverside, the river gum trees and the paperbarks are flowering. The flying foxes 'tell' the Rainbow to bring rain. The rain washes the flowers off the trees and into the water. The rain also gets the rivers flowing again, after having dried back to isolated waterholes. When the rivers start to flow, the fish start to move around again, and their food, the flowers of the white gum and the paperbark are there for them. The rain cools the Earth, and the sun loses its ascendancy. Now there is the time of year, called *mayiyul* in Ngaliwurru language, when it rains and rains. *Mayiyul* builds on a root denoting the world of plants.

The end of the rainy time, like the beginning, is brought on by an accumulation of messages. A little bird (species unidentified) sings telling it to go away. Its song, '*ladawa, ladawa*', is glossed as 'go away, go away, you get away'. And the rain starts to go. At the same time, the cold wind comes up. It rises up to wrestle with the Rainbow and send it back down into the water. People may sing their songs for the wind to send the Rainbow back into the depths of the permanent water; if the Rainbow persists, the wind may break its back. Dry and cold weather return.

One way of thinking about seasons is through the contrast between wet and dry. This contrast pulls the Earth into an interactive set: water and clouds form the wet side of the story, while the dry ground and sun form the dry side of the story. Rainbow and sun, wet and dry: their interaction moves back and forth. Wet and dry underpin the matrilineal moieties, and the moieties articulate the whole social system. The matrilineally transmitted 'flesh' categories (*ngurlu*) are grouped together: on one side is sky/water, and on the other side is dry ground. Genres on each side are interconnected, and the connections are those of the world. Thus, for example, *nini* and emu are mates, and they belong to the dry ground side of the system. On the dry side, emu, also known as *yalanganja* or dry ground, is connected to sugarbag because the marks on the emu's legs look like it was bitten by bees. Similarly, the sugarleaf (also on this dry side) is connected with goannas, because the spots on the goanna are (or resemble) sugarleaf blown on the wind and stuck onto the goanna. The dry ground side is connected with the dry season, and with sun and fire. To quote Old Tim, 'When you're walking and your feet get hot, that's fire and sun.'⁵ Similarly, on the water side, the different kinds of rain, the flying foxes, fish and water birds all index their time, their life processes and their people.

5 Old Tim Yilngayarri, notebook 4, 26.



Figure 6.1. A rock painting of the Dreaming Emu looking at the sugarbag bees biting its legs, Ngaliwurru Country, Stokes Range, 1982.

Source: Photograph by Darrell Lewis.

As a matter of Law, one should marry to the opposite kind. Jessie and her brother Allan Young are emu people, so *nini* is a mate of theirs, too. Their marriage partners are in the fish and rain matrimoiety (discussed in greater detail in Rose 1992, 74–89). Sun and rain, marriage, the fertility of the Country and the fertility of people: these relationships are all about the regeneration of the world.

The contrast between sun and rain, while clear and unambiguous in many contexts, is by no means absolute. Rather it is crosscut by other contrasts. Another way of thinking about seasons develops around the hot/cold contrast. Dora Jilpngarri explained: *parunga* is hot weather. The big wind for cold weather is called *kalajawun*, and it brings on the cold weather called *makurru*. ‘*Parunga, makurru, parunga, makurru*, like that all the way. No more missed im [It never misses].’⁶ The contrast between hot and cold is relative; an examination of mean air temperature at 3 pm (at VRD) indicates the range (Table 6.4).

⁶ Dora Jilpngarri, notebook 52, 82.

Table 6.4. Mean 3 pm air temperature (deg C).

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
35.9	34.4	33.7	33.5	31.2	28.5	28.3	31.0	34.8	36.9	37.1	36.3

Source: Bureau of Meteorology. Online: www.bom.gov.au, accessed 2003.

The physical sensations of coldness are not well indicated in this diagram. One might consider that the mean daily minimum temperature is around 12, 11 and 13 degrees Celsius in June, July and August, respectively (mid-winter, or mid-dry). In contrast, the mean daily minima, in December, January and February, are 24.6, 25 and 24.4 degrees Celsius respectively, or about twice the temperature of the cold time (Bureau of Meteorology n.d.). The record high temperatures in the hot time of year are well into the 40s and in mid-dry season the record low temperatures are below freezing point (Bureau of Meteorology n.d.).

Hot and cold times are indicated by constellations. The Pleiades, or Seven Sisters (Jarinkarin), tells of cold weather and an unidentified constellation, sometimes called ‘seven’ because of its shape, tells the hot time. When this cluster of stars gets high in the sky, that means ‘it’s *parunga* [hot] properly, no more go back [to cold]’.⁷ Given the location of these signs, they refer to broad shifts in the Earth’s orbit, and not necessarily to local phenomena, but they also provide a clear template for identifying this contrast.

The hot/cold contrast neatly intersects the wet/dry contrast, for while hot is clearly the ‘summer’ period and cold is the ‘winter’ period, the sun heats the world and the rain cools it. Hot starts after the cold of mid-year, and cold starts with the rains that cool the Earth. One effect of the contrast between hot and cold is that the apparent absolute difference between sun and rain is crosscut by another set of contrasts which shows the one building up out of the other in a more complex fashion than is suggested by a contrasting binary. Sun and rain can be thought of as opposing forces, and people’s accounts of the relationships are often flavoured with a sense of aggressive encounter, for example, in saying that the winds wrestle the Rainbow out of the sky. On the other hand, and not contradictorily, rain can and does fall at any time of year (Tables 6.1, 6.2 and 6.3), and the sun shines, even if only briefly, on almost every day of the year. The two forces interpenetrate each other; their struggle for ascendancy derives as much from their entangled mutuality as from their oppositional autonomy.

7 Dora Jilpngarri, notebook 52, 83. Debbie intended to say more here about what the appearance of different stars and constellations signifies—eds.

Patchiness and precision

The cold/hot contrast cuts across the dry/wet contrast and thus undermines the monolithic quality of the great sun/rain dyad. It is not so much that a dualism has been cut into more finely defined parts, but rather that it has been disrupted by the flux of the world. The key point here is patchiness—parts of each big division are scattered throughout the other. Part of each is in the other, an interpenetration that refuses dualism without eroding the integrity of each. Cold can be seen to start when the rain starts to cool off the Earth (i.e. in the hottest time of the year), and so the rain of the hot time brings the conditions that will remove its necessity.

Local terminologies articulate the patchiness of rain: there is the very first rain in the hot time (*wuruwuru*), and there is the regular settled rain of the rainy time (*yipu*). There are light and dark rains, and there is the heavy rain, described by Dora: ‘Rain all day, every day, make it cold, no clear, all day rain. That puts [brings on] the cold weather. That makes it come out.’⁸ Then there is the cold weather rain that comes in the dry time (*kulwarang*). There is also a concept of boundedness. Hobbles explained: ‘First rain brings up the grass, last rain knocks im down.’⁹

The crosscutting of the contrasts wet/dry and hot/cold is attentive to the variability and patchiness of local climates. It subverts any form of complete dominance and allows for the interpenetration of elements: rain in the dry time, patches of cold air interrupting hot weather, patches of hot drifting into the cold time.

In sum, the wet/dry and hot/cold contrasts offer two underlying frames of reference. Wet/dry can be imagined as a digital system that alternates between the Sun and the Rain(bow). When one is ascendant the other is not, and vice versa. Hot and cold are marked by constellations and thus have external indicators, but they are also processes. Cold emerges from hot by the action of the rain, and hot emerges from cold by the action of the sun. Their actions are not uniformly continuous, but rather show variable and unpredictable domains of patchiness.

8 Dora Jilpngarri, notebook 52, 82–83.

9 Hobbles Danaiyarri, notebook 13, 74.

Tellers

How, then, do people keep track of local seasonal changes? Unlike some parts of Australia where anthropologists have mapped seasons onto a circular calendar with many named periods (Davis 1997, for example, but see also Hoogenraad and Robertson 1997 for a critique of this endeavour), Victoria River people organise their ecological knowledge within interactive local events. The events of the world tell the story of what is happening almost day by day. Billy Bunter of Daguragu used the word 'teller' to indicate species or events that tell what is happening. In discussing tellers, he indicated an underlying aspect of this system that is implicit in the statements of many of my teachers. This is that other living things have access to their own specific forms of knowledge. They act on their knowledge, and the knowledgeable and attentive person or other creature is able to know what others know. Billy Bunter explained in reference to a bird that is probably a swift:

And when the wet season begins he flies low, but
when the wet season over he flies really high now.
That's the time for him feeling that air on top for that
winter, you know. When that winter coming, go back
low again and start to make that camp in the side
[of the cliff] there.¹⁰

In this way experiential human knowledge is extended through knowledgeable access to the experience of other species as expressed in their action.

Other tellers speak both to timing and intensity. In the colder inland area of the river and desert zones, animals that hibernate in the cold tell by their behaviour of the imminence of cold weather. Along the upper Victoria at Daguragu ice sometimes forms on the water in the cold time. Crocodiles prepare for the cold time by filling their gut with mud. Old Jimmy explained:

You know what sort of cold, might be proper cold,
might be little bit cold. That fellow, that you see the
warritja (crocodile), *warritja*, he eatem stone. He eat
the stone, got it in his stomach. Well, sort of sleep
now, bit of ice now in the water. We call *wartimiri*,
that ice.¹¹

10 Billy Bunter, tape 115, recorded by Darrell Lewis at Daguragu, 19 August 2000.

11 Jimmy Manngayarri, tape 114, recorded by Darrell Lewis at Daguragu, 19 August 2000.

Billy Bunter elaborated:

You can see them on the bank, they feed in the mud when you come round the scrub. But sometimes, not hot weather, that only for cold weather. They feed on the bottom. Because that bottom soil, that mud, that got some sort of feed in it ... They eat one time, and that last long time, until about the summer ... They got the special teller there in the body that tell them when the summer come. Sometimes they can feel that water is warming up. Sometimes during day or night, they can feel that water warming up. They got that special camp there, underneath ... They go into the water, but they go up under the bank ... Like a cave. That's where they camping. Under the water, but they got a camp there. And they stick themselves up into the top area, and they got the dry camp in the top there somewhere. They dive down, but they don't live in the water. They go back into the dry area. Anyway, they can stay there till the winter over. But sometimes they can come out, go to the bank, and they dry themselves in the sun there. They can lie down all day, one on top of another. One sleeping here, another on top, another one on the top.¹²

Other reptiles and fish communicate cold weather by their behaviour. Catfish also eat mud. When you cut open a catfish and see mud in its guts, you know cold weather is coming. In the cold time, when food is scarce for them, they eat dirt along the side of the river. Billy Bunter explained:

Even the catfish, when we get it from the river, when we open im up, we can tell from the guts there. Dirt there, when they eat dirt, that's the cold weather coming up. They tell you earlier [in advance]¹³ ... Because winter time they got no choice, they have to show up and come in to the side. Because it's hard to find their feed in the winter time. The only feed they can have is that mud.¹⁴

12 Billy Bunter, tape 115, recorded by Darrell Lewis at Daguragu, 19 August 2000.

13 Billy Bunter, tape 114, recorded by Darrell Lewis at Daguragu, 19 August 2000.

14 Billy Bunter, tape 115, recorded by Darrell Lewis at Daguragu, 19 August 2000.

Snakes and goannas live in the ground over the cold weather time. Goannas are connected with lightning:

Lingga, big brown snake, when they go in the hole, they dig themselves in more deeper. Like during the summer time they go in the normal hole, or they can sleep around in any tree trunk in the hole there. But sometimes, like during wet season they sleep in the hollow log. But snake doesn't sleep in the hollow during the winter. They dig deep into that soil. They get themselves more coverem up. Like goanna, they coverem up *mijelp* [themselves] cold weather. And first rain, first lightning, that's the time. Lightning strike, that's the time that goanna start to come out. First lightning. And that second lightning, that restart the goanna in another area. That first lightning that strike the ground, that make all the goanna come out. They love wet season, and they got to come out because that time it's got to start put in a bit of rain, and making a bit of green grass, and they want to feed on some grasshoppers now. Oh, cold weather time they cover good. They can sleep there for about that many months, until that winter over.¹⁵

Other event-messages are ordered by connections; co-occurrence or simultaneity is of the first importance. In and around Yarralin, when the fireflies arrive, the conkerberries (*Carissa lanceolata*) are ripe; when the march flies bite, the crocodiles are laying their eggs; when the cicadas sing out, the turtles are getting fat. Green flies arrive, and the bush plums (*Vitex glabrata*) are ripe. When the *jangarla* tree flowers, the barramundi are biting. When the seed pods of the *wanyarri* (*bauhinia* tree, *Lysiphyllum cunninghamii*) turn very dark red the cold is finished and the 'really hot' weather is here. Other tellers include the finches who cry out in the hot weather time, and the rainbirds (channel-billed cuckoos) whose call signals rain. Another little bird tells that it is time to get lilies, and still other events refer to the time when the rivers start to flow again: 'when the brolga sings out, the catfish start to move'.

15 Billy Bunter, tape 115, recorded by Darrell Lewis at Daguragu, 19 August 2000.

A number of signs identify hot, or 'really hot', weather. They are indicative of a time of year when living things are stressed. 'Hot and more hot' is the Victoria River term.¹⁶ The rivers have sunk back into isolated waterholes, many of the surface waters have dried up completely, the remaining ephemeral waters are evaporating rapidly. In this stress period the heat has become intense, but the rains have not yet started to fall. So much information clusters in this heat period that I hypothesise that this is a time when information is urgently needed on a very detailed scale. If one were making calculations about travelling and foraging in this time of year one would want to have extremely precise information. Failure to gauge the 'time' accurately could result in death. If, for example, you planned on getting to your next drink of water at a particular billabong, and arrived to find there was no water left, you could indeed die. In this pattern of seasonal mobility, the knowledge of the geography of water and of the timing of when to leave the ephemeral waters and turn toward permanent waters would be crucial.

Patterns

I have discussed two types of information: one is large scale and linked to global and celestial, not local, events. The other is small scale and local. The movement of the stars, and the changing hot and cold seasons, are significant in the broad sweep of life. In contrast, the correspondences and co-occurrences are very finely tuned.

I tracked information through the communities of Timber Creek, Yarralin and Lingara, Pigeon Hole, Daguragu, and with Mudbura people of the Murrniji area. My tracking covered three ecological zones, five languages and included two language families. My first point of interest was to ask whether the same abstract system remained stable. Was there a system of major interactions, and was it filled in with precise information events? The answer to that question is yes. The next question was: to what extent does local information hold good? The answer is that it varies. Some events, like the call of the channel-billed cuckoo, are widespread throughout the whole district and beyond, but most of the information is far more localised.

16 In North Australian vernacular English, the terms are the 'build up' or, more vividly, the 'suicide season'.

A number of the same indicator species occur as part of the information system. March flies, for example, are widespread. At Yarralin they tell you that the crocodiles are laying their eggs. North of Yarralin, at Timber Creek in the saltwater zone, the march flies tell exactly the same thing, and they do so in Pigeon Hole, which is south of Yarralin. South of Pigeon Hole, however, at Daguragu, the flowering of the *janganla* tree tells that the crocodiles are laying their eggs. When it flowers that is what it 'says'. In fact, at Daguragu, knowledge is very specific: not only about the eggs, but also about when they hatch. Old Jimmy explained:

Ngumpin [Aboriginal, in this region] way him tell you, pretty flower tell you. Jarinkarin (Pleiades) come out, tell you what time that cold gonna finish. Well you'll see every tree got a pretty flower, well he must be come *parunga* [hot weather] now. *Parunga* now. You see. Cold weather mob all finish now, him *parunga* now. That's sort of October. And *janganla* tree, you see the crocodile, you see when he go on the bank lay im egg. *Janganla* tree, im pretty flower, pretty flower, pretty flower, finish! He got seed now. After flower, that seed. That means that crocodile egg got the baby now. When him got that pretty flower, egg, and pretty flower go away and he got that seed, well he got the baby now. He'll have a little crocodile now.¹⁷

Back at Yarralin, when this same *janganla* tree flowers it tells you that the barramundi are biting. Allan Young explained:

Janganla tree, him belong barramundi tucker that one. Im fall down there, barramundi eat im that one. That's only tucker now for barramundi. When the *janganla* got pretty flower, im sit down first time cold weather, when the wind comes up, im fall down, that's im tucker. You bin see em barramundi always walking in cold weather time. You can see im.¹⁸

At Timber Creek, also, *janganla* flowers tell that the barramundi are swimming near the surface of the water and will be biting.

17 Jimmy Manngayarri, tape 114, recorded by Darrell Lewis at Daguragu, 19 August 2000.

18 Allan Young, tape 116, recorded by Darrell Lewis at Katherine, 24 August 2000.

The indicator status of the *wanyarri* tree is widespread. As in Yarralin, at Pigeon Hole, Daguragu, and east into the Mudbura desert Country when the *wanyarri* pods become a very deep red they tell you that the really hot weather is here. They darken up at different calendrical times from year to year, and the drier the Country the sooner they darken. So, while they say the same thing, they say it in response to completely local conditions, speaking precisely to the local arena, and varying in timing from place to place and from year to year.

Going south from Daguragu onto the edge of one of the great treeless plains of the desert fringe, there are no *wanyarri* trees. There, *Grevillea dimidiata* tells you that the hot weather is here. Further afield, to the north in the floodplains south of Darwin (Rose et al. 2002, 46), the fireflies tell you that goose eggs and saltwater crocodile eggs are ready to harvest (whereas in Yarralin they tell you about conkerberries), and the march flies tell you the barramundi are biting.

In sum, the rhythms of life happening simultaneously constitute crucial information for knowing what is happening in the world. Living things communicate—the stinging bite of the march fly, the sounds of cicadas and the smell of flying foxes. They communicate by their presence or absence. Absence is crucial here: events that occur to the same rhythm require intervals of non-occurrence. There are times when things do not happen, and it is the not-happening that makes it possible for the happening to have meaning. Thus, for example, the march flies announce that the crocodiles are laying their eggs; their arrival is only remarkable because for a long time they have not been around at all. Presence and absence are thus observed, remarked upon and correlated with other events. The knowledge of regularities is learned and transmitted because many presences and absences are differences of an order that makes a difference: they are information.

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I tracked the question of what, if anything, tells that crocodiles are laying their eggs. From Timber Creek through Yarralin, Lingara and Pigeon Hole, the march flies are the tellers. In Daguragu the *jangarla* trees are the tellers. This differentiation brings salt and a large portion of fresh water into a single communicative code. It places the most inland segment of the river in another code. It is not a question that can define *kaja* insofar as *kaja* is defined as an absence of water. The difference thus marked is consistent with another difference: the occasional presence of ice on water.

Daguragu is in ice Country. The term for ice is *wartimiri*, and it refers to all forms of ice, including the ice that forms on small bodies of water, and that which you might find in your billy can when you get up early. Yarralin is just north of the area in which surface ice is known. In Yarralin, the same term, *wartimiri*, refers to hail.

Old Jimmy explained that crocodiles tell you how severe the cold will be:

You know what sort of cold will come, might be truly cold, or might be a little bit cold. That fellow, when you see the crocodile, crocodile, he's eating stones. He eats the stone, got it in his stomach. Well sort of sleeping then. And [there might be a] bit of ice now in the water. We call *wartimiri*. That's ice. Oh, you, you might be have it in the billy can, you might see ice in the billycan.¹⁹

Similarly with catfish. As Billy Bunter explained: 'When they go on the bank they start to eat some mud. They feed in the mud. That tells is the big winter come. Once they have that mud. That feed them for longer. The feed lasts longer.'²⁰ The most severely cold periods are also killers: 'That *wartimiri*, it kills fish. You know that cold, you know, cold gets into fish, it kills them.'²¹

One of the main distinctions across the region in terms of temperature is animal behaviour. I have discussed the preparations crocodiles and other water creatures make to ensure their survival during the cold months. Similarly, goannas go underground during the cold months, and only return to the surface when lightning announces hot and wet weather, and the emergence of food for goannas. The Stokes Range also marks the distinction between goanna behaviour: south of the range goannas hibernate; north of it they do not.

In sum, the pattern for ice is not the same as the pattern for hibernation. The ice boundary is consistent in a general way with the riverine concept of desert, while the hibernation boundary is consistent with the range and saltwater boundary that is so distinctive and so well known.

19 Jimmy Manngayarri, tape 114, recorded by Darrell Lewis at Daguragu, 19 August 2000.

20 Billy Bunter, tape 115, recorded by Darrell Lewis at Daguragu, 19 August 2000.

21 Jimmy Manngayarri, tape 114, recorded by Darrell Lewis at Daguragu, 19 August 2000.

As I have shown, some of these communicative signs are dispersed widely, but most are highly localised. Many of the signs of concurrence vary from place to place, so that one really only knows what is happening in the places where one has the knowledge of what concurrences exist and what they mean. The fact that this system is widespread ensures that people know that there is a system. When they go beyond the bounds of their knowledge, they still know that they are in the presence of a communicative system; furthermore, they know that they do not understand it.

Knowing that they do not know what is being communicated in the world around them makes people uncomfortable. The general unease that people often say that they feel when they are out of their own ranges is brought about in part by the loss of communication. Dora explained that when she was living in Daguragu at the time when they all walked off from VRD in 1972 (Rose 1991, 225–35), she never got much bush tucker: ‘We bin fright, you know. We didn’t walkabout too far because we don’t know that Country, you know.’ Her lack of knowledge went beyond the specifics of tellers, and included lack of knowledge of resource sites, Dreaming sites and much more. Her words must also be heard as a statement of ethics: she does not claim knowledge for other people’s Country, and she does not purport to have experience of Country in the absence of knowledge.²²

One sees quite clearly the practical importance of localised and particular information:

- each specific information event is sufficiently widespread to be useful; you do not have to hang around crocodile nesting places waiting for the right moment to start collecting eggs; you can just wait till the march flies bite (and you know when they do!);
- the information is precise at a very local level;
- the linkages between ecological information and songs, designs, Dreaming stories and sites, and matrilineal and other social categories, ensure that the information is stored and transmitted along numerous pathways;
- the information is calibrated at local levels and thus can be protected; people are knowledgeable within their own Countries, less so when they travel into other areas.

22 Dora Jilpngarri, tape 82, recorded at Yarralin, 18 July 1986.

Pragmatics are important because they constitute life and death knowledge. To live well in a nomadic hunter-gatherer system requires that you know where your next food is going to be, and where your next water will be. The practical aspects are inseparable from geographical, epistemological and philosophical aspects.

Here and not-here

Presence (current or past) marks the world and thus becomes part of a communicative system. Consider animal tracks. If you understand tracks, you can know what happened: what animal made the track, where it was going, how long ago this happened, and where it is likely to be now. To gain such detailed information you bring a lot of knowledge to the study. The animal did not put those tracks there as a message for you. In being itself, in living its own life in the world, it marks the world with its embodied presence. You see the marks, and if you know how to follow, you might get that creature for dinner.

Everyone is familiar with the tracks on the ground that are made by animals, including birds and insects. The Ngarinman term for track is *jamana*, which also means foot. To see a track or mark is to see the imprint of that which made it. The mark references the body of its maker. It is important to note that creatures who do not have feet also make tracks. Not only snakes, as I will discuss shortly, but also plants. *Pikurta*, for example, is a ‘yam’ that grows in desert Country. Hobbles explained:

Tucker longa root inside. Longa leaf, when him grown, you know. But when all this root, he got a track ... That what my mother takem me, findem tucker. Big one. Long one now. No more like a potato, but long one, different like a potato, *pikurta*. But he’s a long one. You try roastem longa fire. You try havem now. He’s like a potato.²³

Other marks are sounds—the call of the birds who tell you that it is hot time. Their call is a mark they make on the world in the course of being themselves. Finches are not the St Bernards of the tropics; they do not rescue imperilled travellers by calling out to them and guiding them to

23 Hobbles Danaiyarri, tape 91, recorded at Pigeon Hole, 27 July 1986; the ‘track’ is a crack in the ground above the tuber—eds.

water. Finches do what they do; as many of my teachers said, they have their own 'Law' or their own 'culture'. Their way of doing can be understood as information by others who know how the way of being a finch is patterned with other events, places and ways of doing. Smells, too, constitute marks. You might smell the flowering eucalypts before you see them, and you will almost certainly smell the flying foxes before you see them. The smell announces the presence of the source of the smell. Then again, the march fly will mark you with its annoying little bite: you are part of the world on which the march fly imprints itself in the course of its life. Of course, you have a smell as well, so when you are hunting you want to conceal your presence.

Your sounds carry meanings too; minimally your voice and the clatter you make as you walk announce your presence. Victoria River people make noise when they walk. Unless they are hunting, they want others to know what they are doing. In grassy areas they often swat the grass with a stick as they walk along so that snakes will know they are there and keep away. Similarly, fires and smoke communicate their presence, and as I have discussed earlier, people call out to Country to announce their presence.

On the other hand, silence is important for hunting. Sign language is useful, and then there are special hunting terms. Some animals do understand human language. The echidna (*Tachyglossus aculeatus*) is an example. Snowy Kulmilya explained, starting with the colloquial term 'porcupine':

Snowy: Them porcupine? That bloke been hunting all night. Put im in a bag, oh, big mob. Some fellow know how to get that porcupine, night time, you know. People been just killem im. Walkabout all night again. They didn't have a sleep. Roastem im there. Sit down there till he get cooked. Pick im up, take im back to camp. Feed all everybody.

When they want to hunting porcupine night time, they can't talk like them people, 'I'm going hunting *junkuwuru* [porcupine]'. They can't. You can't call im name. When you go hunting night time, you can't findem porcupine [if you call his name]. Porcupine might be gone bush somewhere. Inside the cave.

Debbie: So what do you have to do?

Snowy: You just gotta talk, oh I'm going walkabout *kirinjin*, they call im. That's the what-name now, porcupine hunting. You can't talk like that: '*junkuwuru*.' [That] Frighten im. Different, eh? They talk out, 'I go *kirinjin*, this one.' We go all night, you know. Full night time, you know.

Debbie: A bit tricky.

Snowy: Tricky, yeah. Well porcupine he's tricky too, I think. Might be, I don't know, something [out of the ordinary]. I don't [know] how he'll find out.²⁴

The sounds and smells, the marks, tracks, grooves, colours, shapes and patterns are all communicative events if you know what to pay attention to; to know that you have to know where you are, and how the information works in that area.

The absence that contributes to this information is the absence of nomadics. The whole communication system is built upon observations accumulated through time of the rhythmic returns of events and their correlations with other events in the living world. Whether it is the return of the Seven Sisters to their high place in the sky, or the return of swifts to the lower reaches of the sky, the return of march flies or the return of the red flowers and seed pods of the *wanyarri* tree, the system is understood to work through regularities of motion.

In Chapter 1, I defined nomadics as the interplay of the here and the not-here. We can now see that this same nomadics accounts for the action of the sun and rain, stars and march flies. They do their work according to an ethic of return. Victoria River people worked their own lives according to the same ethic—taking notice of what was happening and fitting their lives to it. They worked themselves ever more fittingly into the nomadics of the world through the interactive work of their own knowledgeable lives.

24 Snowy Kulmilya, tape 90, recorded at Yarralin, 27 July 1986.

Ecosemiotics

Let us revisit the Nanganarri Dreaming Women and their billabong for a moment and recall the idea that Ivy's ethic includes non-human subjects within her world of care, communication and reciprocity. Her world is sentient, and its parts communicate. She encounters that place situated as a part of the place; she is an owner with responsibilities to care for the place, and she is a senior person who visits the place and also shares with the place a history of encounter. If life is always in encounter, and if communication is the evidence of encounter, then it follows that one of the deepest desires of all life is to be attended to, and one of the deepest practices of participation in living systems is to pay attention. Intersubjective encounter is known through communication. If we put deep attention together with connection, we find an intersubjectivity articulated through encounter. Ivy and others taught me to see and experience a world of non-appropriative connectivity.

Some of my more conservative colleagues have wondered if all these assertions of sentience and communication are not 'just' metaphors. The argument seems to run along the lines that these Aboriginal people are too sophisticated to think that places, trees, rocks, birds and a myriad other living or inhabited things really communicate, or really are sentient. I will engage this issue with a discussion of ecosemiotics and will argue that there is nothing unsophisticated about finding communication and sentience in the world of living things.

But first, a few words about metaphor. I will consider two extremes. Many analysts contend that, since the time of the Greeks, western thought has been structured around an ontological discontinuity between the ideal and real; this ontology is embedded in language as well as articulated in philosophy and theology. Metaphor is an invitation to think of one thing in terms of another thing. It thus works across a gap of difference and invites a consideration of resemblance. If metaphor is properly understood, the reader or hearer will know that A is not B, but rather that there is some instructive reason for thinking of the similarities between the two. Metaphor is a figure of speech, and it acquires its greatest power in the figurative speech of which it is a constituent part. Even to say that it is a figure of speech, however, is to allude to that pervasive ontological gap, in this case the gap between literal and figural, between the letter and the spirit, between real and the imagined. Understood in this way, metaphor

also requires a transcendent subject who is able to look at both A and B and imagine a relation or similarity between them (Ankersmit 1994; Handelman 1982; Tyler 1984).

Metaphor is powerful and pervasive in western languages and logic, but it is not universally so. Other systems of logic are based primarily on metonymy and thus work with contiguity and contextuality (see Handelman 1982). Frank Zimmerman (1996, 297) notes that ancient logic and folk taxonomies share a predilection for 'connective rather than inclusive relations'. Many non-western systems of ecological thought work with concepts of connection and communication that do not require, indeed may refuse, the idea of ontological gaps between word and thing, body and mind, world and spirit.

A wholly different idea of metaphor was suggested to me by an Aboriginal colleague and teacher, Linda Payi Ford (see Rose et al. 2002). Ford uses the term metaphor to indicate a density of meanings. She uses the metaphor of an onion to describe her understanding of the term metaphor: it refers to layers and layers of meaning. Ford speaks from a world that contains layers of information and speaks to concepts that are many faceted and multi-vocal. Her usage, while idiosyncratic, captures this density of connectedness and multiplicity of domains of meanings which are characteristic of her world view (Ford, pers. comm.).

Is it then the case that Aboriginal people do not use or recognise metaphor? I have argued against the idea of metaphor as an essential quality based on an ontological gap. There is another, less metaphysical, dimension of metaphor that involves shifting meaning from one context to another without implying a gap. Most frequently I have encountered this type of shifting meanings in the context of humour. There is a playfulness in moving ideas around out of context that underpins a great deal of social life, and gives spice, laughter and often insight into daily life. Aileen Daly is Daly Pulkara's daughter. I visited her in the year after record floods and I asked her if the floodwaters had taken out trees in the Humbert River where she lives in the community of Lingara. She said that only a few old ones had been lost. Startling me with her vivid smile, she said: 'They went for joyride.'

In speaking of communicative events, I have sought to remain as faithful as possible to the meanings of my teachers. My analysis connects readily and with great pleasure to recent work in an enlarged semiotics. Social scientists, like natural scientists, have long known that language is not the

only form of communication, and that non-semantic communication is found among many animals as well as humans. From a communication perspective, Aboriginal people, like other Indigenous peoples, hold interspecies communication to be a given (for example, Scott 1996; see Guss 1985 for a broad survey). They understand ecosystems as participatory and communicative systems, and this view is in many respects similar to the views currently being developed by scholars such as Jesper Hoffmeyer (1993), who contends that the whole universe is semiotically driven. He refers to our world not as a biosphere but as a semiosphere.

The philosopher Jim Cheney (1989) discusses the concept of the relationships between language and world that rests on a totalising overlay (language over world), summarising it neatly as a view that the world is language ‘all the way down’ (120). He contrasts this concept of language with a concept of contextualised languages that ‘percolate upward through the contexts they are bringing to voice in language shaped by this percolating process’. His neat summary of this concept is that it is ‘world, all the way up’ (120–21). Cheney quotes Tom Jay, who claims that ‘traditional cultures’ such as Native American ‘bridges subject and object worlds, inner and outer ... Each word bears and locates our meetings with the world’ (in Cheney 1989, 121).

Aboriginal philosopher Mary Graham goes further. She offers two axioms: the land is the Law; you are not alone in the world (1999, 106). She asserts that Australian Aboriginal world views do not rest on a divide between subject and object worlds. Her analysis thus proposes not only that it is world all the way up, but also that it is Law all the way up. Law can be glossed as presence in its specificity: Law is origin, and way of being in relationship, and Law is connection. My teacher Big Mick Kangkinang put it this way: ‘Tree, everything, sugarbag, tucker, goanna, fish, that no more nothing—all the fish from Dreaming. Goanna, everything, all from Dreaming.’²⁵ He says of everything that it is ‘no more nothing’. It is presence and subjectivity, all the way up.

To know that one lives within a communicative world is not to say that one understands all the communication, or that all sentient things always understand each other. Quite the opposite is true. The finches appeared not to understand Jessie, but they are not communicatively inert. In contrast,

25 Big Mick Kangkinang, notebook 20, 32.

porcupines have to be tricked because they do understand human language. Different species have different languages and different cultures. A way of being in the world is also termed Law.

Sometimes people speak to other creatures, but speech is not always or even often understood. Action, however, is its own communication. Action marks the world, announcing presence (or attempting to conceal it, if necessary). The presence is the communication; the action demarcates a zone of meaning. Thus, for example, animal tracks testify to presence, and as a record of action they tell a story of what the animal was and what it did.

Within this Indigenous knowledge system there is a double decentring of the human subject. First, subjectivity in the form of sentience and agency is not solely a human prerogative but is located throughout the whole Country. Intersubjectivity is an ecological domain as well as a human one, and the ethics of encounter relate to all encounters, not only human ones.

The second decentring is that the ecological system is not run by human intentional agency, but rather calls humans into relationship and into activity. A great deal of the literature on human ecological activities—resource use and resource management (to use conventional terminology here)—assumes the priority of human knowledge and human intentional action. My work with Aboriginal people challenges this priority. Rather than humans deciding to act in the world, humans are called into action by the world. This communicative system works by calling with voice, presence, smell and other means. The result is that Country, or eco-place, far from being inert, actually brings people and other living things into being, into action, into sentience itself. It is all interactive, and it is about paying attention and being responsive.

Not only humans, but other animals as well are called to action. The lightning calls the goanna into action, as we have seen. Hobbles explained that frogs, in contrast, are silenced by lightning:

Frog, too, when it starts to rain again he'll come out asking for water. Lightning stops him up. Frogs [are] really boss for rain, but lightning stops them every one. When lightning goes away, they going to start talking again. One fellow, he's asking the boss how long [before] that rain going to start.²⁶

26 Hobbles Danaiyarri, notebook 11, 61.

Partial knowledge: A quick trip²⁷

The pragmatics of caring for Country are based on local, fine-grained knowledge that includes the connections among living things. In order to act responsibly, humans and others must be alert to the state of the systems of which they are a part. Awareness is achieved by learning a huge body of facts concerning types and behaviour of living things, ways of interpreting behaviour, basic sets of messages, geography, Dreaming Law and places, and by continually observing and assessing what is happening. Living things give out information, their actions are messages, and other living things take notice. To be alive, and to be living rightly, is to take notice of what goes on around one. In a living system, living things are connected, and because it is a system, and not a random series of unconnected events, there are patterns and predictabilities. Information about how things are connected to each other, and what is supposed to happen in conjunction with what is important, is localised land-based 'Law' or 'culture' (Aboriginal English).

Information is dispersed; specifics emerge from a background of broader categories. From this perspective the world cannot be human-centred. The march flies do not tell anybody to do anything, but those who understand them know that in this region they 'say' that the crocodiles are laying their eggs. Individuals of all species know what is going on in the world. They know because being alive and conscious they are capable of knowing, and because they have learned to understand, and, from an Aboriginal perspective, failure to pay attention is either the height of arrogance or gross stupidity.

If beings are to act wisely, they must know what is happening. Knowing is not instantaneous; it develops over time and, in important issues, depends on information which is dispersed through both time and space. An event happens, but to understand it fully one must wait to see what flows from it. The process of knowing is built up over time through an assessment of contexts and perspectives. Perspective in Indigenous systems of knowledge is also dispersed. Individuals have their own personal angle of perception, their matrilineal totemic angle, and their various Country/totemic angles which tie them into other species and to the workings of the world. To be responsible as a human person requires that one learn to recognise that other perspectives exist, and that one's own wellbeing is interwoven with that of others.

27 A note in the manuscript indicates that Debbie intended to rework or tighten up this entire section—eds.

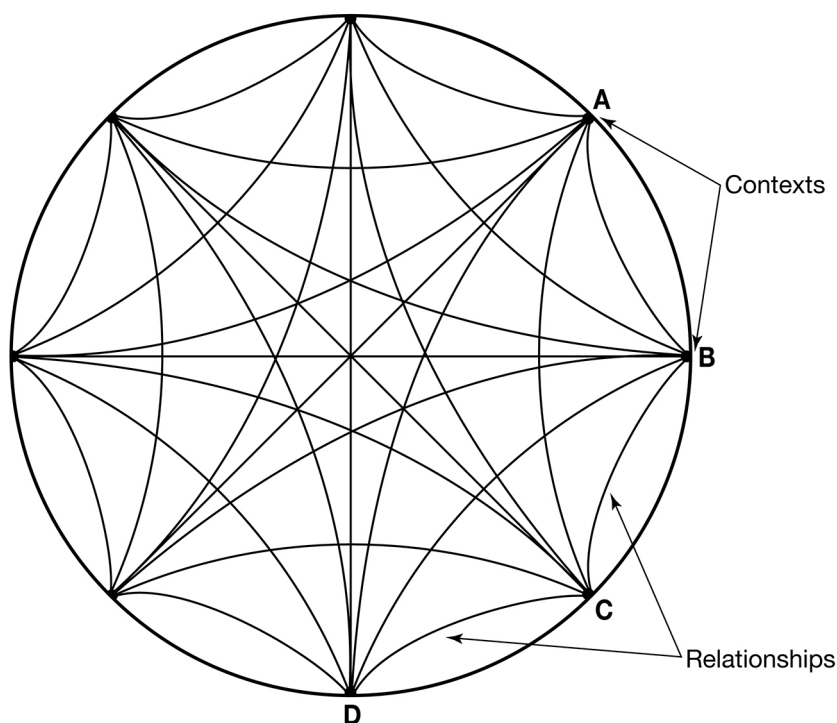


Figure 6.2. Relationships and contexts.

Source: After Figure 24, in Rose (1992, 222).

Each line in Figure 6.2 is both a boundary and a relationship. Each node (A, B, C, etc.) is both a context and an angle of vision, another centre. The view of the system changes from node to node. A wise individual (human or non-human) is capable of looking at things from several Country angles, and from the angle of various species with whom they are Countrymen or 'flesh'. No single angle defines the total, and nobody has access to every perspective. Figure 6.2 is misleading if it is read as constituting a real-life system. If this modest diagram were a real-life system, the corollary would be that there is a perspective (the reader's) from which the whole real-life system can be known. Victoria River people draw quite the opposite conclusion from their multi-centred system of dispersed knowledge: nobody knows everything, and the structure of the world is such that nobody can or should know everything.

To purport to know everything would be to undermine the integrity of the living participants in this system. The further step in this logic clearly seems to be that if the system can be known in its totality by one portion of the

system (the human portion, or a segment of the human portion, let us say), then that portion can bend the system to its will, and other portions of the system cannot defend their interests because their knowledge is incomplete. Total knowledge, from this perspective, not only opens the door for a deep and enduring immorality, but also deconstructs fundamental propositions about the structure of the world:

- How can a Country and its people take care of each other if one species dominates, or if one Country dominates other Countries?
- How is mutual interdependence sustained if one group is convinced that its knowledge is greater than and encompasses the knowledge of other groups?

I have drawn out some logical consequences of the idea that a real-life world can be known fully by any segment of the world, but I must add that most of the Aboriginal people with whom I have studied do not pursue this analysis. For them it is so fundamentally obvious that the world is more complex and varied than any one angle of perception can know, and that the rights of other living things are so fundamentally part of the living world, and that a lifetime of learning leads to more questions, that their assessment of people who think their knowledge systems can, do or should encompass everything is that they are both mad and dangerous.

The morality of partial knowledge is not a completely foreign concept in western thought, as I discussed briefly in Chapter 1. It finds interesting expression in Principle 15 of the Rio Declaration (United Nations 1992): ‘Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.’

A more bureaucratic statement of the matter takes up this principle in the context of pollution:

Where the state of our planet is at stake, the risks can be so high and the costs of corrective action so great, that prevention is better and cheaper than cure ... where there are significant risks of damage to the environment, the government [UK] will be prepared to take precautionary action to limit the use of potentially dangerous materials, or the spread of potentially dangerous pollutants, even where scientific knowledge is not conclusive, if the balance of likely costs and benefits justifies it. (Ecologically Sustainable Development (ESD) Working Groups 1991, 41)

In my discussion with scientists about scientific practices and ethics, I have been offered more expansive views:

- If you don't have the information, don't make a decision.
- If you don't know the results of a management practice, caution and common sense indicate that you do not implement that practice.
- If you don't know what's going to happen, don't do it.
- Take action to rectify problems even without full scientific certainty.²⁸

However one interprets this principle, it rests on the propositions that scientific knowledge is incomplete, that we live in a world of increasing risk in which actions have the potential to generate long-term irreversible damage, and that as a consequence of the first two propositions, caution is advisable.

The precautionary principle offers a point of contact, but where western knowledge treats lack of knowledge as an obstacle, Victoria River people treat it as an ethical situation. It goes back to absence—one's own lack of knowledge is not an empty gap to be filled, but rather an intersubjective acknowledgement that other knowledge rests with and belongs to other people and living things. Ultimately, Earth—as discussed in Chapter 9.

But locally—the person who exists in others, and in whom others exist, is vulnerable to what happens outside their own skin, but that same person finds their power in the relationships which are situated beyond the skin. To share a subjectivity is to share a self-interest. Thus, responsibilities are understood quite profoundly to be mutual and reciprocal. Genre relationships distribute subjectivity across species and Countries such that one's individual interests are held within and realised most fully in the nurturance of the interests of those with whom one shares one's being. It follows that you cannot bring yourself into being; each living thing becomes itself in the world through the work of others in whose lives its own is held. And while no individual is connected to all others, the overlap of connections sustains patterned interdependencies.

28 In this section, as in the section on Indigenous knowledge systems, I have not identified individuals. My intention here is to examine the properties of systems, not the individual perceptions of them.

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