The Host Model of Earth

by

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Chapter 1

Beliefs about the nature of our world, and about how its inhabitants are related to it, have progressively evolved since consciousness first developed the capacity to perceive it. This will have been a very long time ago. While it may be a somewhat contentious view it is likely that consciousness on this planet is much older than our human experience of it dating from as early as the very genesis of the planet itself. If consciousness is as old as this then it may be seen to occur simultaneously with matter itself and therefore spans the length and breadth of existence. In this case it is likely that consciousness has always been as analytical as we are, and to answer the controversy inherent in this view I will offer an explanation shortly, but first let me point out how tenuous our theories are in terms of our own experience of such vital speculation.

It is an implication of evolution that our ideas will undergo a progressive development as the course of time unfolds. For example it is now several thousand years since Moses wrote the opening chapter of Genesis and even then the story which is told probably represents the essence of ideas which date from as early as one or two million years ago when humans first undertook their crucial evolutionary divergence. The Genesis story is one whose cryptic symbolism makes it especially poetic which may explain its enduring popularity, but with the emergence of scientific thinking over the course of the last two hundred years or so it is now subject to some serious paradigmatic competition. Whether or not scientific representations of our fateful origins are able to eclipse the popularity of Biblical ones may depend on the generality of their abstractions, but it may also depend on the ability of scientific representations to accommodate the tender human sentiments which the Biblical account addresses with such satisfaction. It remains to be seen whether our

current scientific thinking will be as popular as the Biblical account of our origins in several thousand years from now, provided of course that we are able to survive that long. And it remains to be seen whether scientific theory will be able to answer our need to believe in something greater than ourselves when we are evidently so able to alter the ecologies on which so many depend for their survival.

You may be thinking on the basis of your prior experience that there is a fundamental conflict between scientific representations of our world and Biblical ones, but I believe that far from there being a conflict between the two there is merely a missing link which joins the two representational paradigms. This may seem like fairly surprising news to you, so to save you from suffering any more suspense than is absolutely necessary I will proceed directly to my explanation of the fundamentally judicial nature of the world in which we live.

I begin with the rather surprising observation that the continents of Planet Earth are not randomly drawn topographical figures. On the contrary, I believe that the continents of this planet represent the figure of a planetary being. According to this view the American continents represent the hind legs of our planetary host. Hudson Bay and the vast Canadian wetlands represent the creature's rectal cavity, while Bering Strait represents its lumbar-sacral junction. The Pacific Ocean represents its belly, the vast Eurasian continent is its trunk, and the African continent represents its forelegs. The creature's head is found in the vicinity of Europe, and Australia is its foetus strung at the end of an umbilicus, the Indonesian archipelago.

If this represents a valid interpretation of the topographical evidence then I don't know how you can avoid the inference that the planet is both an individual living being, and one who is not unlike ourselves in terms of the essential features of our existence. And I

believe that we may further infer on the basis of how closely we resemble the planetary host that we are an integral component in a pattern which recurs throughout the constitution of matter. But before I enter into further discussion of this subject let me deal with what amounts to an astonishing interpretation of the significance of continental topography.

You may, of course, be one who is inclined to adopt a sceptical view of new ideas such as the host model of Earth. Let me tell you, however, that I conceived of it many years ago, and in that time I have discussed the matter with perhaps no more than twenty five people among whom the overwhelming majority were partial to an acceptance of its validity. For these people its validity was self evident on the basis of common sense, and I can confidently report that in my case I have never been in a position where I could reasonably doubt it. But if you happen to be among those who cannot accept its validity at face value, or who are naturally sceptical of such new ideas, then let me try to win you over to the natural majesty of this intriguingly novel idea. I have seen a look of awe on the faces of some of those with whom I have shared this idea, so I find it difficult to believe that you are not at least curious to hear this subject discussed in some detail.

Let me begin with the suggestion that, in spite of whatever reservations you may have, the gross features of the host model, the legs and the trunk of this hypothetical planetary being, comfortably fit the configuration of the continents of Africa, Eurasia, and North and South America. I like to think that they resemble a gorilla who is hunched over on all fours, and whose shoulders resemble the bulky protrusion of western Africa, but they could also resemble any number of creatures from extinct dinosaurs, to an assortment of modern day grazing animals. Yet, as compelling as this resemblance may seem to some observers of the model, I believe that the intricate topographical details are even more so.

I have already mentioned how Bering Strait and Hudson Bay resemble certain features of the pelvic region of a nominally representative vertebrate animal, but there are other features of North American continental topography which can be seen to fit the planetary model as hypothesised. It is worth noting at this point that such features should not be interpreted too literally, that the significance of individual features has to be seen in terms of the global matrix of representations rather than in terms of a correlation with anatomic identities which approaches unity. In this case the Great Lakes and the Saint Lawrence Seaway favourably compare with the location of the urinary tract in vertebrate animals, but it is the location of the Greater and Lesser Antilles which especially deserves interpretation in this representational context.

If I may suggest that the evidence is of a somewhat lyrical nature rather than of a doggedly literal one, then the imminent entry of Cuba into the Gulf of Mexico constitutes a symbolic representation of staggering proportions. These topographical features may not correspond with the location of the womb in animals with which we are familiar, but the representational captivation of an egg and sperm at the very instant of conception is unmistakeable. The Gulf of Mexico undoubtedly represents an ovum. And with its tail extending to the island of Grenada at the tip of the Lesser Antilles, the Greater Antilles represent the head of what is a symbolic model of a fully motile sperm cell. I hope it will become clear to you that the surface of the planet may be likened to a kind of scratch pad upon which is written summaries of cosmic experience. And consistent with the location of our bodies within this representational framework we can think of anatomy as a manuscript which encodes a similar repository of this experience. There is evidently a sense in which biological functions have significance in a purely representational context.

In this case the union of egg and sperm in a sense represent the beginning of all time, but just as crucial to their significance is the sense in which they represent a point in

space, and so it is not surprising to find that the relationship between the centre and its periphery is portrayed in some detail elsewhere. The Sun itself is one example, surrounded as it is by countless bodies which orbit at different distances, as is the slowly rotating Galaxy. But even here on Earth there is a topographical representation of what must be a fundamental feature of space itself. Notwithstanding the suggestion that such representations may be of a somewhat lyrical nature, the location of the Hawaiian Islands close to the centre of the Pacific Ocean suggest that there is a relationship between the belly and other representations of this spatial origin.

It should not be too difficult for you to see how the fleshy belly resembles the vast Pacific Ocean. The belly consists mostly of salty water as do the oceans of course, and the remnant of the umbilical cord coincides with the location of the Hawaiian Islands in a way which reflects the poetic nature of these representations. But it is the way in which the Hawaiian Islands resemble a map of the Solar System that the representation of a point in space is portrayed in terms which are really quite profound. Quite apart from the way in which the smaller islands seem to be in orbit around the larger island of Hawaii, it is the tidal interaction between the rocky islands themselves and the surrounding water that is especially poetic in so far as it depicts the essence of time and space itself. Those jetsetters among you will have noticed while flying over oceanic islands that they are often surrounded by concentric rings as the kinetic energy of waves crashing on the shoreline is reflected sometimes as many as several tens of kilometres back out to sea. So, not only do the Hawaiian Islands resemble the Sun and its numerous planets, but their interaction with the surrounding ocean also resembles the natural electromagnetic and gravitational radiance of these celestial bodies.

There are, of course, other islands in the Pacific Ocean. There are the Midway Islands and the Marianas in the northern hemisphere, but it is in relation to the countless

islands of the South Pacific Ocean that these islands are of particular interest to us here. This is because, consistent with the sense in which features of planetary topography may be located in a purely representational context, the islands of the Pacific are themselves not without some kind of representational significance. In this case, while the Hawaiian Islands resemble a map of the Solar System, the islands located elsewhere in the Pacific Ocean resemble the countless stars which spiral quietly across the vast galactic sky. If it is reasonable to associate these representations with the bellies of vertebrate animals, then there is the sense in which our long and winding entrails resemble a map of the universe itself. In this case our very lives may be seen to unfold as we pass through the length of our own alimentary canal.

A little to the west of the South Pacific islands is Australia which is another representation of the geometric origin not actually located as such. A foetus is not unlike the egg and sperm we found in the vicinity of the North American continent which is also displaced from the true origin of time and space like virtually everything else which has a physical existence. In Australia we find the representation of a foetus which seems to look outward from its own spatial origin across the South Pacific Ocean where it encounters a representation of the inky blackness whose emptiness goes on and on indefinitely. If you haven't quite grasped what I am referring to then perhaps you should turn your map of Australia upside down. According to this orientation Tasmania represents the head of the planetary foetus, while its rectum may be found in the vicinity of Australia's western shores. Its legs are found pointing north to the equator where its belly joins with the Indonesian Archipelago which represents the foetal umbilicus. Since it faces easterly when oriented in this way it therefore looks out across the South Pacific Ocean.

I might just mention in passing how dramatically the presence of Uluru affects the mood of visitors to the deserts of Central Australia. Uluru is that magnificent sandstone

monolith which is unique among the various geological features of this planet, rising as much as 350 metres above the surrounding desert, and occupying an area of close to seven square kilometres. It is perhaps even more impressive in view of the implication which follows an acceptance of the host model that its particular function is to represent the planetary foetus. It is impressive to the point of being spooky to think of the sense in which the Olgas, which are located some 30 kilometres to the west, represent the tribal clan who faithfully watch over their precious infant at a time when it is most vulnerable. I can think of few places on this planet which are quite so able to affect the senses.

I will discuss the significance of Asian and African topography in a later chapter, but at this point in my discussion there is a more important issue which I would like to draw your attention to. I'm going to move on to a discussion of European topography because it constitutes a vital component in the unfolding of my story. Of particular interest is the unmistakable shape of Italy, but I'm going to postpone this discussion because it is of such a disturbing nature that I believe a number of issues need to be resolved before I can address it. This leaves two other topographical features in the vicinity of Europe which are of particular interest to me, namely the British Isles, and the Skagerrak Strait which lies between Denmark and the Scandinavian Peninsula. Suffice it to say for the sake of rounding off this discussion so far, that so many features consistent with the planetary model are unlikely to be coincidental. I suggest that so many features consistent with the model implicate the involvement of a controlled morphological intention to shape continental outlines, and I find it difficult to believe that any one of you could be in a position to seriously doubt it.

The Scandinavian Peninsula and the Skagerrak Strait simply add to the accumulation of topographical evidence which indicates the validity of the host model of Earth. It doesn't take much imagination to see how the peninsula resembles a brain stem, and how the strait resembles the synaptic cleft which provides a vital chemical link between the

ends of otherwise electrically charged neurons. But the British Isles have a much more profound impact on the significance of the planetary model than any of the topographical features I have discussed so far. In the curious case of the British Isles there is an opportunity to introduce to our discussion of the host model the somewhat unnerving observation that two ends of a spatial progression terminate in spatial infinities.

Let me tease you with the suggestion that this spatial continuum resembles the fascinating recursion which results when two mirrors face each other, and I mention them in the present context because the British Isles represent the start of a spatial regression whose vanishing point is very similar. When two mirrors face each other their mutually reflecting images ultimately vanish over an ever diminishing horizon, but only because of how difficult it is to ensure that their surfaces are exactly parallel. Were it possible to ensure that their surfaces were parallel then their mutual reflections would extend to what appears to be infinity. Each recurrence of the other mirror's reflection would seem to get smaller and smaller until their images became too dark to distinguish. The most distant reflections would seem to converge on a point which only retains the essence of the original reflection. In this case it can be said that each successive reflection summarises the original image, and that the summaries regress to a point of infinity. While this may seem like a somewhat artificial construction I believe that matter is organised according to a similar principle.

I therefore suggest that the British Isles represent a summary of the topographical pattern portrayed by the planet in its entirety. According to this view the British Isles represent a figure which is identical to the planet except for its diminished magnitude, and accordingly the planetary head is characterised by this sort of representational diminution. Consistent with the pattern of regression the head of this topographical summary can be found in the vicinity of Scotland where it can be seen facing to the west. Its forelegs can be seen protruding west of Scotland’s Southern Uplands, and its hind legs can be seen

east of Land’s End in the south of England. Wales represents an umbilical link to Ireland which represents the creature’s foetus, and which completes the representational diminution. In the case of Ireland you may see how the legs of the foetus protrude along its western shores, and it is curious to say the least to see how the creature's head coincides very closely with the political boundaries surrounding Northern Ireland.

This summary of the global pattern may not seem so remarkable to you until you realise that a similar pattern can be seen to structure the bodies of animals among which our own will be of most interest to you, and the observation of which elevates the representational pattern to another level entirely. While this may seem like a somewhat novel idea to some of you, those Art lovers among you may already have an idea of what I am referring to. In 1934 Rene Magritte produced a Surrealist painting called The Rape which depicts a face made to look like a female torso, breasts for eyes, tummy for nose etc. While Magritte's painting flippantly associates the mouth with the female genitalia, ironically comparing the consumption of food with sexual brutality, it is more consistent with the formalism of this discussion to associate the organ of ingestion with the stomach, the organ of digestion. In this way the relationship between head and body can be likened to a simple harmonic relationship, like the recurrence which occurs between progressively higher octaves in the case of musical scales.

Comparing pubic bone and chin, embellished perhaps by a little goatee representation of pubic hair, suggests a nodal boundary, while the curvature of ribs ending at the sternum satisfies the search for an area corresponding to the nasal cavity, between and below the eyes. The diaphragm is found dividing octaves at the second harmonic node, while throat and belly button correspond to fourth harmonic nodes, two octaves above the fundamental, the indivisible human trunk stretching from head to tail.

In the context of discussion concerning the host model the recursive diminution already evident deepens further. The head of an animal body, and also that of the planetary host, is thus a kind of homunculus sitting on top of the body, which in our case makes it a little man within the man, notwithstanding the gender bias implied by my use of this idiom. On the basis of this evidence I propose that matter consists of a chain of representational structures which physically encode memories within the greater universe, and which regress infinitely to a point of ever diminishing proportions, and outwardly in the sense of occupying the infinite egress of space.

Chapter 2

I present the homunculus theory of animal anatomy to you without much in the way of critical analysis because I believe that its validity is self evident on the basis of common sense. I will, however, briefly elaborate by way of suggesting that as grotesque as this observation may at first seem to you, you can't deny its intuitive appeal. After all, if the head is to supervise the satisfaction of the body's needs, it is hardly surprising to find that it consists of a representation of the body. Clearly there is a literal sense in which the head represents a body of constituents.

Furthermore, in terms of verifying the relationship between head and body the host model and the homunculus theory mutually corroborate each other. In this case an analogy can be drawn between the two structures which says that the British Isles is to the rest of the world as the human face is to the body. Now, you may find that my usage of these terms is confusing, so let me try to clarify. It is my intention to liken the British Isles to the head of the planet, but I don’t think that the comparison is as simple as this. There are other features of European topography, such as Denmark and the Skagerrak Strait, which I believe are unambiguously associated with the anatomical structure of the head, and which preclude the British Isles from having an exclusive claim to this identity. I am therefore inclined to compare the likeness between our face and body, as depicted by Magritte’s painting, with the relationship between the British Isles and the rest of the world. It is possible, on the basis of this comparison, to think of the British Isles as the 'face' of the planet, its representation of self in the context of global discourse, while it follows as a matter of corollary that the face represents an abstraction of the body. This may also be unsatisfying to you so let me point out

that there are several interpretations of the evidence which deserve mention, and I will introduce these to the discussion at a later stage.

I might also mention, although somewhat teasingly, the curious reciprocal inversion you will observe occurring between the ears and the arms when raised horizontally on either side of the body. The inversion is as if the ears were open to a sense of the inner space within while the arms sense the outer space beyond the body, and this comparison gives our spatial regression a certain visceral quality. While I have little more to say about this symmetrical correspondence I'm sure that you will find it curious to observe, and it may appeal to your intuitive sense of the relationship between the head and body.

I will also briefly comment on the association between the planetary head and the depiction of parental relations which Ireland and Great Britain seem to indicate. I believe that an axis of symmetry will help to explain this representational context. Axes of symmetry are very common in the assemblage of matter; the celestial Ecliptic defined by the path which the Sun and planets follow is an example of one, as is the terrestrial Equator. On opposite sides of the Equator the planetary adult and foetus exhibit a regression which is similar to our infinite spatial regression provided that we are able to incorporate a parallel extension in time.

If material existence regresses to a point of infinity, and space and time are inseparable, then both dimensions must be depicted in its subsequent representation. In the case of the planet the beginning and the end of time are depicted on either side of the equator by the planetary adult and foetus, and the relationship is one of temporal symmetry. This symmetry must be expressed on every level of organisation in order for representational continuity to be maintained, and so we see Ireland and Great Britain express it in their representation of the planetary head. Perhaps not surprisingly we find ourselves involved in

the depiction of this symmetry, and so parent and child represent a temporal axis, but there is another aspect of this relationship which may surprise you. Not only do parents and their children represent opposite ends of time but because of the relationship between Ireland and Great Britain we may now implicate parent and child in the symmetrical correspondence between our two cerebral hemispheres.

I will return to the subject of symmetrically polar fields a little later in this discussion, but for now I would like to emphasise the significance of representation, not only in the limited context of the host model itself, but also more generally in terms of answering the pithy question of why the universe exists. I will attempt to make clear to you that the material universe is organised according to a regression of representative summaries, a recursive diminution of abstractions which represent the universe, and which proceed from one end of the dimensional scale of existence to the other. The regression of abstractions is a theoretical construction which will probably be new to you, but one which allows that all of material existence occurs in the context of representation. Representation is thus a very general term, and in view of our preoccupation with various political representations one which should already be very familiar to you. Nevertheless, let me point out several features of such representations, and show you how they are relevant to our discussion of the host model of Earth.

I will begin with a representation which will be very dear to many of you, not because it is an icon which will have been familiar to you from quite early in your life, but because it is one whose abstraction is so acute that it’s meaning is very nearly obscure. I am referring to the Biblical story of Adam and Eve the subject of which we may now discuss because we live in an age of considerable liberation, but when it was written in those modest days of old it was a subject which was too delicate for much discussion which is why the story is so obscurely phrased. Even today many of you will be surprised to hear that it is a

fairly coy explanation of the role which sex plays in the genesis of time and space, so cloudy is the representational imagery. As children we are introduced to the foggy symbolism associated with an artful snake and forbidden fruit, but it is then left to the discretionary wonder of individuals and their personal accumulation of experience to clarify these obscure references.

But this coyness is itself perhaps our best clue to deciphering the meaning hidden behind these guarded words. There's only one subject the author could want to address with such oblique innuendo. Given the delicate pattern of deception sewn into sexual representations, and in view of the utter selfishness of sexual motivation, it is a fair reflection of our impact on this world to suggest that the original sin concerned reproduction. Take a look around you. It's an easy bet that there are too many humans on this planet. And besides, by way of corroboration what may not have occurred to you is that sexual proclivities constitute knowledge of good and evil. Since courtship involves the selection of a partner on the basis of attraction goodness will be attractive to you, while evil will be repulsive. So, the story of Adam and Eve is not so much about the ascent of humanity over the course of ages, although this is undoubtedly an implication. But perhaps even more importantly it is the story which parents tell their children in order to explain to them the difference between childhood and subsequent maturity.

You may be wondering what this has to do with the host model. Well, for a start, you will probably agree that the host model compels us to re-examine our relationship with the planet, and I'm sure it will be clear to you how the Garden of Eden story represents some of our most sincere sentiments in this regard. But there is an aspect to this story which has a bearing on the regression of abstractions in so far as Adam and Eve are themselves abstractions, stick figure chalk board sketches which summarise the experience of human cultures long ago. Indeed, the symbolism is so minimal because the story represents a very

early theory of our relationship with the world, and also because the original story tellers wanted to ensure that the protagonists would remain memorable throughout the ages. My point is that when we think about such minimal imagery we each visualise something vaguely different. Our individual mental associations will vary considerably, and this is why the meaning behind the Genesis story is subject to confusion. My vision of the Garden of Eden is as idiosyncratic as yours is.

While you could argue that perhaps the Genesis story could have been a little more verbose, clearly some editing is required in the telling of any story. Were it possible to include all the jolly trivia associated with some story, then its intended meaning would soon be lost among the endless detail. Stories are therefore selective constructions, they summarise the subject they refer to. Indeed, there is such a dependence on the summarisation of information in a world of increasing complexity, that the same can be said of representations in general. A baby born in the treetops during a recent flood in Africa became symbolic of the plight of an entire nation, just as a politician summarises the experience of his or her constituents. The numerous icons of modern pop culture are examples of this representational modelling, and the modern science of statistics embodies a representation of the process.

It is a comparison between this representation of experience in society and the location of the British Isles in the larger global environment that is perhaps the most compelling insight provided by the host model's discovery. According to this view organic evolution is found progressively objectifying summaries of its cosmic experience. The British Isles represent an abstraction of the entire planet, itself an abstraction of the Sun and Solar System, and human anatomy in turn embodies a summary, not only of its immediate location in space, but ultimately of memories spanning the universe itself. A system of representation which is recursive suggests that creatures like spiders, jellyfish, elephants and single cells represent summaries of the attempt to define cosmic identity. Each individual creature is

itself an island universe, a rudimentary model of the unfolding of time, while playing a dialectical role in the planet's long history of biological interaction. If it is reasonable to characterise the lives of individual creatures in this way then we may implicate the universe in the act of thinking, and individual creatures in the portrayal of roles which bring the universe closer to an achievement of understanding.

Representations both organise our thinking and give meaning to our lives. We endlessly conduct an internal dialogue about the world in terms of representations, and it is likely that creatures of any sort will wrestle with them just as incessantly. In the case of our political representations, our leaders represent their electorates in the parliamentary discussions which concern them, but this cursory description of their function fails to identify the most crucial aspect of what they do. A corollary of political representation which is usually taken for granted is that our leaders embody our consciousness. Not only do they act on our behalf, but they are in possession of a vision of the community they serve which is used to model the consequence of any action they may be required to undertake. It is this inextricable association between representation and consciousness that I want to draw your attention to now, because if they are inseparable as I believe them to be then we may expect consciousness to be an attribute of every individual particle of matter from one end of the dimensional scale of existence to the other.

To put my argument in terms of the regression of abstractions, if form is fundamentally abstract, and it is true that abstractions constitute information then form implies the simultaneous existence of consciousness, since information only occurs in the context of an organism's experience of awareness. The body is thus a body of knowledge, and evolution the physical register of a creative and reflective contemplation.

If this turns out to be a valid inference, then it is reasonable to suppose that galaxies, stars, microbes and atoms have consciousness in the same sense that we as humans do. While philosophers may have dreamed of being able to suggest this possibility I believe that it is only in the context of the present discussion that people will ever find it acceptable. Of course, acceptance of this conclusion may not be universal because for a lot of people doubt is a necessary part of their thinking. So, for those of you who are conscientiously sceptical, let me tempt you with the following argument. If an abstraction inherits from its prior form those attributes which make it a faithful summary, then the abstract representation of a conscious being necessarily includes the attribute of consciousness. Since the argument applies to the reverse case of a progressive elaboration, it follows that if any part of material existence is conscious, then every other part must possess this attribute as well. This is a fairly robust argument in spite of whether you agree with it or not. But, if you still harbour doubts about its validity, then let me put it this way.

Imagine for a moment that we are all microbes living off the back of Planet Earth, a living host assumed to be a planetary being. If the planet is a being, and the ultimate purpose of being is knowledge, then the planet must exist as a being in possession of this faculty. Furthermore, because we may infer from our resemblance to the planet that the recursive depiction of being is likely to be extensive, I don't know how you can avoid the conclusion that consciousness is universal. Irrespective of the dimensional scale of matter trumpeting between spatial infinities, material form cannot be removed from the context of knowledge and meaning. Saturn, for example, is no coincidence of physical materials, but a point of self conscious reflection undertaken by the ancestral Solar Being. To say that consciousness is the exclusive domain of human beings against this background is, I think, both petty and small minded. It is absurd to suggest that, out of thirteen billion years of evolutionary history, consciousness only emerged with the development of humanity some

two million years ago. It is, however, consistent with a rigorous verisimilitude to suggest that matter is inherently representational, and therefore concerned with knowledge, and that this will likely be the case at any infinitesimal point in the course of material existence.

This sort of talk may seem vaguely repetitious to some discerning readers. I'm sorry, but I'm sure you'll agree that it will likely be so alien to some human beings that it deserves a little judicious reinforcement. It allows that consciousness need not be associated exclusively with the behaviour of the brain, dissolving to an extent the traditional distinction between mind and body. The human body is thus a population of constituent cells and atoms, some 100 trillion independently conscious cells, or about a thousand trillion trillion atoms, a population in which the mind is distinct from the body only in its constitutional representation of the body as a whole. The body is a mass of individual particles and the mind is the Premier of these. But, in so far as this Premier is able to achieve consciousness on behalf of the body, then any particle is capable of the same and can also be said to be in possession of the faculty of mind. Surely the homunculus theory is based on a valid interpretation of the physical evidence; body and mind are merely adjacent components in an endlessly regressing representational continuum.

The somewhat frenzied image of a vast empire of independent beings working together, springs readily to mind at this point, since a comparison between the body and the political constitution of nation states is, in this case, as natural as it is correct. While it is a matter of simplicity to locate the mind at the apex of this empire, a further comparison between the midbrain and the apex of a pyramid, is not only natural but, in the context of an endless regression of abstractions, even more dramatic.

Now, I'm not saying that the average somatic cell has consciousness on a scale equal to the consciousness of the body as a whole, just as the average member of society has

a view of the world which is less than the view of those chosen few who represent us all. But I do believe it is reasonable to attribute fundamental particles with a capacity for knowledge, however limited this capacity may be, knowledge, for example, of the distinction between self and other, and of how the self interacts with its immediate environment. After all, particles behave in an orderly manner, they are bound by the same physical constraints we are. And, because they are so small, whatever they do they do independently of our knowledge or involvement, just as we exist without supervision by more elaborate representations of being such as the Planet, the Solar System or Galaxy.

This discussion may seem fairly reasonable up to this point, the language is at least correct, and you probably sense that I'm committed to the validity of it. But, I bet you have trouble believing there is any life in a lump of rock, or in the atoms of which it is composed. Such things are, according to convention, unquestionably inanimate. No offense chum, but you probably have a fairly restrictive way of looking at the world; you simply don't have the sort of volatile imagination possessed by one who has been immersed in this thinking for more than a few short years. You balk at the necessity that if every particle of matter represents some spark of consciousness, then there must be worlds within worlds, and countless beings who populate them.

If you are uninclined to adopt this view then you may rest assured that you are in good company. Physicists are among those who believe that matter is fundamentally inanimate. While they recognise the equivalence between work and energy they refuse to allow an association between what objects do in a physical context with the work which most of us engage in on a daily basis. They distinguish the work which animals do in the course of either defending themselves, or providing for their nutritional needs, from the energy which is contained in the substance of their being. In Physics work is defined as the length over which an object is accelerated times the product of its mass and its acceleration, and is

measured in joules which is the same unit according to which energy is measured. The total energy of an object was made famous by Einstein who proposed that it is equal to its mass times the speed of light squared, so that even very small amounts of matter contained really quite a phenomenal amount of energy.

Physicists have always been careful to distinguish between an object's ability to do work and the social behaviour we engage in because of the inextricable implication of volition in what we do as economic participants in society. In society work is a matter of considerable deliberation, it is goal oriented and well planned, and so it necessarily implies the existence of a conscious perceiver who coordinates the completion of the countless sub goals which an economic enterprise will usually require. Presumably scientists have been reluctant to attribute fundamental particles with this sort of consciousness because they have not been in possession of a paradigm which allowed them to draw this conclusion. But they may now be persuaded to adopt this view because of the host model of Earth, and the continuity of representation which it necessarily implies.

If all these particles represent beings who are entangled in a system whose purpose is to obtain knowledge of the universe in which they live, and together they constitute a means of storing energy, then inevitably they must be implicated in its practical utility. I therefore suggest that such creatures are workers who think constructively about what they do, and who labour to arrive at the ultimate goal of their existence which is to represent their experience of the mystical world whose devious ways they are unavoidably a part. Such creatures are both the workers and the work. They are the means by which knowledge is obtained, and having obtained this knowledge they endeavour to store it in representations which give substance to the containment of energy itself.

In our case we use energy to create representations of ourselves, and of our relationship with the world, which satisfies our fundamental need to express ourselves, and which is consistent with the ultimate purpose of our being. But because our creativity is so fundamental we may infer the possession of this faculty by any creature, in spite of the scale of its existence, including the planetary being who hosts us.

I want to show you how the planetary consciousness has affected the shape of continental outlines, so I will now briefly discuss the behaviour of three morphological factors which affect the planetary crust, and which vary according to changes in the thermal energy in its vicinity. The three factors are sea level changes which are due to dramatic changes in atmospheric and oceanic temperatures, erosion due to temperature extremes, wind, rain, and pounding seas, and most importantly continental drift.

Let me begin with the suggestion that there are several factors affecting the temperature of the planet in the vicinity of its crusty surface where the landmasses undergo transformation. The temperature of the planetary core is some five or six thousand Kelvin, but this drops off to between 1000 and 1500 Kelvin close to the planetary surface where magma is ejected from volcanos. The crust provides insulation for the lower atmosphere where the temperature is, of course, room temperature, and this drops off to just above absolute zero on the dark side of the planet as you leave the planetary atmosphere. On the sunny side of the planet it is still very warm outside the atmosphere, but much of this heat is reflected back into space, so that the surface is within a range which is tolerable to most of the creatures who live there. With so much thermal variation close to the planetary surface it seems likely that a planetary host who is determined to undertake work would find the manipulation of surface temperatures a matter of considerable simplicity.

In the case of the first morphological factor sea levels rise and fall with the tides on a daily basis without affecting the shape of continental outlines. But over the course of much longer periods of time sea levels change as global temperatures cycle between periodic highs and lows. Polar ice sheets advance during infrequent periods of extreme cold, absorbing water from the oceans, then retreat as warmer weather returns. There have, however, been only three major glacial episodes over the last half a billion years or so, each of which lasted no more than a few million years. During this time coastlines will have undergone substantial morphological transformations, and so it is unclear whether sea level changes figure much in either the planet's perception of continental outlines, or its generation of these topographical figures.

Erosion, on the other hand, is a more significant factor which is caused by the weathering of the rocky materials in the environment. These materials fracture when exposed to temperature extremes, and the wind drives abrasive particles into them which wear them down during a process which is very similar to sandblasting. In the case of coastal erosion the factors are identical with the exception that the abrasive particles are made of salty water which can also chemically interact with the rocky materials, but the wind is the factor which does most of the work. The creation of wind requires the transformation of thermal energy into mechanical energy and accounts for most of the energy involved, although the wind is also affected by the rotation of the Earth.

The density of the air in the lower atmosphere varies with the distribution of temperature so that as warmer air expands there will be a reduction in density in that region, and cooler air will contract leading to an increase in atmospheric pressure. Because of differences in pressure the wind will tend to follow the isobars which are drawn on weather maps, and the distribution of thermal energy in the atmosphere is ultimately responsible for this. My point is that in a system where work and energy are equal, and where

electromagnetic radiation is to be found in abundance, the distribution of thermal energy on the surface of the planet could easily become a matter of deliberation. I therefore suggest that it is at least conceivable that coastal erosion may not be as haphazard as people usually assume it to be.

I would like to compare a couple of cases of coastal erosion, but the comparison depends on an understanding of plate tectonics and continental drift, so I will now turn to a discussion of this subject.

The theory of continental drift says that the history of the continental forms we know today began about 200 million years ago. The geological record suggests that at this time the continents of the world were joined together in one large supercontinent, called Pangaea, before being broken up by tectonic forces and slowly moved into their present positions. 200 million years may seem like a long time by human standards, but it is a fairly brief interval compared to the age of the universe, or even the 4.5 billion year age of the Earth. Fossils show that single celled organisms lived in the primitive oceans as early as 3.2 billion years ago, so that by the time Pangaea began breaking up, nearly three billion years later, evolution had progressed to the Triassic Period when Earth was populated by dinosaurs and an abundance of other life forms.

Prior to the breaking up of Pangaea about 200 million years ago the west coasts of Africa and Europe were joined to the east coast of the American continents, before being separated by the Atlantic Ocean during a process of sea floor spreading. This adjacency provides a means of evaluating the magnitude of coastal erosion, since it is fair to expect a degree of linear correspondence between the two coastal outlines. As it happens the match is far from perfect, indicating that erosion has indeed taken place, but not enough to alter the overall fit between the African and American continents. Continental outlines seem to be

fairly resistant to this geomorphic factor, and at an age of some 200 million years or so the present configuration has well and truly withstood the test of time.

Now, I want to draw your attention to a comparison between coastlines on either side of the Atlantic Ocean and those drawn around the British Isles. In the case of the Atlantic coastlines erosion has evidently been a relatively minor factor in the shaping of these coastal outlines, especially considering their monumental length. This contrasts quite sharply with the case of the British Isles where erosion has evidently been the only factor involved in the shaping of what amounts to a very intricately drawn coastal outline. On the basis of this comparison it is reasonable to infer that erosion can be a very selective geomorphic factor. Evidently the wind is subject to considerable morphological deliberation, and so I propose the following. If all those molecules of air are subject to the manipulation of atmospheric temperatures by a being whose intention is to store information, then it is hardly surprising to find some semblance of order emerging over the course of several billion years. I dare say that each and every particle of matter assembled here on Earth exists to achieve a goal which is ultimately identical, and the coastal outlines which we observe today are merely one of many interlocking threads woven into a rich fabric of carefully measured representational intentions.

Chapter 3

To continue our discussion of continental drift let me add that continental plates didn't spend the last 200 million years swimming randomly on a sea of magma. The movement of a plate is constrained by the presence of adjoining plates. When a plate moves the area behind it has to be filled in with molten rock, while the area ahead of it is either consumed in a neighbouring subduction zone, or takes part in the process of mountain building. In view of the location and axis of mountain ranges on the North and South American plates, it seems likely that these plates moved into their present positions without the slightest deviation, as did the Indian, Australian and Antarctic plates. As for the Eurasian and African plates, they remained more or less stationary relative to these other plates.

This much is without controversy, but because the topographical configuration of the planet is so affected by the movement of continental plates, it begs the pithy questions of how, and why? How is a rocky lithosphere made to resemble flesh and blood? And why was Pangaea broken up in the first place?

To answer the second question first, let me remind you that the British Isles represent an abstraction of the larger global environment. Because of this abstraction, and its further abstraction in the form of an animal, the host model depicts a regression of representative summaries. You will no doubt have gathered this already, but the conceptually inverse case may not have occurred to you. It says that each step in the 'egress' of material space represents an elaboration of the previous step. The Planet is thus an elaboration compared to the British Isles, but remains a summary relative to the Sun and Solar System.

Since Pangaea broke up long after the Triassic dinosaurs had established themselves, and in view of the regression of abstractions, it is reasonable to infer that the supercontinent broke up so that it could elaborate on these creatures' evolutionary development. In this case evolution can be seen to consist of the dialogue between successive abstractions and elaborations. But this startling conclusion only begs the question, how? How could the planet model its topography on the physical shape of one of these dinosaurs? The answer to this question is by observation and by a subsequent modulation in temperatures close to the surface of the planet, but in order to make this assertion clear it is necessary to use the language of feedback control systems.

Feedback controls are found in a variety of automated situations, such as in heating or manufacturing systems, but are also commonly found in a biological setting, such as the human endocrine system. They are so common, in fact, that features of control systems can be found in the context of almost any mechanical process, including plate tectonics and continental drift.

There are five basic components involved in a feedback control system, including the process itself. In the context of continental drift the components are, firstly, the input to the system, called a set point, which specifies the desired result of the process, and in this case consists of the representation of a dinosaur. Next, there is the actuating device which does the work within the system. This device is adjusted by a controller which responds to the circulation of feedback, and then varies surface temperatures accordingly. In the context of continental drift, work is done by tectonic forces which arise from thermal effects beneath the lithosphere. Third, there is the process itself, continental drift, and fourth, the output from the system is represented by the state of planetary topography.

Lastly, there is a sensing element which compares the current state of continental drift to a representation of the desired end result. If there is a difference, the controller makes adjustments to the tectonic forces doing the work, and the cycle of comparison repeats itself until the difference has been eliminated. This explanation of the sensing element implicitly suggests that a visual inspection of both the set point and topographical state is taking place. But, because an inspection depends on the ability to perceive features of the global environment, suggesting that the greater solar presence here on Earth has the ability to see, the process involving feedback between the two components will probably baffle you. I don't know how you can avoid the implication of some kind of intricate planetary dreaming. While this sort of thinking may be new and uncomfortable to you, I believe this conclusion to be both necessary and one which is otherwise inspirational.

If you happen to be among those who are determined to reject the possibility that the solar system possesses this kind of visual consciousness, then I can only hope to persuade you that the present topographical state of the planet is no accident. I believe that it is evidence of a measured representational effect, and is therefore evidence of some kind of controller's existence, presumably one who is as creative as so many of the creatures we are familiar with on Earth. This remains a fairly uncomplicated inference in spite of how obscure this concept may at present be.

Among the various senses which the planet and the surrounding solar system may be conscious of their sense of the space which surrounds us is likely to be more extensive than that which we are able to perceive. The planet will probably share a deep emotional affinity with other members of the Solar System, and the stars may even seem quite neighbourly, but surely intergalactic spaces will be inconceivable. Surely it is inevitable, given the infinite nature of space, that there will be a point beyond which the planet is unable to identify with. Certainly our own sense of space is limited to a somewhat

two dimensional existence, and this kind of perceptual limitation will likely be a feature common to any creature’s sense of this dimension.

I don't know how much you've thought about your perception of space, but in terms of its irreducible logic space must go on and on indefinitely. With the deployment of the Hubble Space Telescope late in the 20th century it is now possible to look a staggering 10 billion light years into the inky blackness. This formidable distance, and the volume of space it defines, may seem impressive from our point of view but, compared to what else is out there, it actually encompasses a minuscule region of space. Now, don't get me wrong, you'd be doing well to take in a couple of light seconds of free space, much less the sort of distances which define the edge of the visible universe. But, this is by no means the end of the matter. Space is necessarily continuous a trillion light years from here, and it still goes on forever. So, sooner or later, what seems like an unfathomable depth from our meagre point of view is, from another point of view, an ever diminishing speck, virtually insignificant against the inky darkness.

While the structure of the universe on this scale remains a largely speculative matter, it can be said with confidence that the visible universe is both homogeneous and isotropic. This means that, as far as can be seen, galaxies are distributed more or less uniformly in every direction, and at every distance. It is thus tempting to suggest that quite by chance we happen to be located close to the centre of the universe, but such a coincidence is highly unlikely. What is more likely is that the apparent distribution of galaxies represents an artefact of observation, and that galaxies exist beyond the vision of our telescopes, at distances much greater than those observed so far.

There is, of course, a limit to what can be seen of such distant objects because, as we look out into space, we see these objects as they existed in the past. Quasars, for

example, are among the most distant objects to be seen so far. At distances in the vicinity of 10 billion light years from here, we see them much as they were when the universe was only three billion years old. But, at a distance of about 13 billion light years from here we're looking back to a time when the genesis of the universe has only just begun to unfold. The primordial universe cannot, however, be seen at this distance because, for the first million or so years of its existence, matter and energy behaved in such a way that radiation could not escape and begin to fill the void. Were it possible to see even further into space we would still see nothing there because now we're looking back to a time before the universe began. This may seem inconceivable to you but, don't be confused, this doesn't mean that space, or even time itself, is finite at any point you can think of. Your measuring stick terminated at a distance of 13 billion light years from here, but this doesn't mean an end to these dimensions. And it doesn't mean that galaxies don't now exist at such distances, just that they haven't existed long enough for light coming from them to make it all the way across the void.

If you doubt that this is possible then consider the case of quasars located at opposite ends of the sky. Let's say that quasar A is 10 billion light years to my left, and that quasar B is at a similar distance to my right. There's no need to complicate the math. It follows naturally that quasar A is 20 billion light years from quasar B, and that this is simply the diameter of that part of the universe which is visible from our point of view. Well, if stellar objects can be separated by such distances, and if there's no reason to suggest that our location in space is any different from that of either quasars A or B, then stellar objects must also now exist at such distances from us.

While dimensions such as these may seem forbidding from our point of view, it may surprise you to note that the visible universe is not as big as you imagine it to be. Let's say, for the sake of argument, that the edge of the visible universe is about 10 billion light years from here. Well, 10 billion light years is only five thousand times the distance to our

nearest neighbouring galaxy, the Andromeda Galaxy, which is about two million light years from here, and is thus a relatively minor distance compared to the infinity the universe is usually associated with. You can't even say that the Andromeda Galaxy is far away because, with an angular diameter of about three degrees it practically fills the sky; it is six times as wide as either the Sun or the Moon. It is thus fairly likely that the material universe is more extensive than is apparent from the somewhat modest volume visible to us through even the best of terrestrial and space based telescopes.

Just how many unseen galaxies there are out there is anybody's guess. Certainly, if the pattern of distribution already evident is any indication, then one might reasonably expect the pattern to continue out of sight, perhaps as many as several times the distance to the most distant objects seen, and quite likely very much more than this. While it may be difficult to prove in practical terms, it is however virtually certain, given the infinite nature of space, that what we can see is just some small part of a much larger organism. It is tempting to suggest that those seemingly titanic galaxies are not unlike primeval grubs crawling their way across a dark primordial sea.

In any case, in spite of whatever else might exist out there another pattern is evident in this discussion. It says that the appearance of size in a universe of infinite space is far from absolute. It is, in fact, entirely relative to an observer's point of view and, since space proceeds infinitely from atoms just as certainly as it does from galaxies, there's no position privileged above all others. This is because just as there is no limit to how big space can be, there is also no limit to how small it can be made to seem from a point of view even further out there. By the same token, you may think you know about some pretty small things but, compared to what else is in there, whatever size you're talking about can be made to seem astronomical indeed. We've already seen how this could be with respect to shrinking your view of the universe. But, as for your sense of the relatively minuscule, what if you could say

that atoms were not the simple components of matter we assume them to be, but were instead comprehensive organisms, every bit as complex in their way, as any human being or galaxy. In this case you could argue that, while atoms and humans differ in terms of magnitude, ultimately this attribute is of only marginal significance. Atoms and galaxies remain every bit spatially equivalent in terms of partaking in the bridge between infinities. And, with this comparison, we encounter another sense of infinity of interest to us here, the arithmetic inverse of infinity; a number which is very close but never quite equal to zero.

Compared to the dimensions of atoms and galaxies humans have a fairly limited perception of scale. At an altitude of ten thousand feet above flat country, for example, the horizon is about two hundred kilometres away, but this distance is already well beyond the human capacity to relate to. We can think in terms of dimensions greater than this, of course, but only in fairly abstract terms. In terms of compulsive raw emotions, however, tall buildings, bridges and canyons may hold us in enthral but these are fairly diminutive by comparison.

At the other end of the scale, our experience of the really small scale structures in space is no more emotionally compelling. For example, you would probably need a magnifying glass to see a small dust mite clearly. Some of these can be as little as a tenth of a millimetre in length, and you may well exclaim how small they are, but such creatures are likely to be at the very threshold of your dimensional perception. Certainly single celled organisms are of a size which we can no longer discriminate with any accuracy, at least not without the use of a powerful magnifying device such as a microscope. And, as for atoms, well we really have no personal sense of how big they are. We can say, somewhat ironically, that they have a radius of about a tenth of a nanometre, but really, who can say how big this is?

Yet, in spite of these rather obvious perceptual limitations, it seems to me that many of us have not yet come to terms with the prospect that ours is not the only point of view. We treat animals as if they were inferior beings incapable of judgement or reason. We dream of planting our seed on the planets of distant suns, but it is comical to compare the abysmal depth of even the nearest of these with the precious few kilometres which define the limit to our depth perception. Even so, we look across 10 billion light years of free space and think that, because we can't see any further, there must be nothing else out there. Or, we think that because some subatomic particles are so small, they must be the absolutely irreducible units of matter.

Well, as it happens we used to think that atoms were fundamentally irreducible. Early in the nineteenth century when the modern atomic theory was developed, the newly discovered particles took their name from the Ancient Greek word 'atomos' which was the word for indivisible. Nuclear fission was not discovered until 1938, and in 1945 the Manhattan Project dramatically demonstrated the divisibility of atoms with the first nuclear detonations. Today we know of more than 200 subatomic particles of various sizes, the smallest of which are so small that their sizes cannot presently be measured. Present estimates put them at having a radius of some unknown value smaller than a thousand trillionth of a millimetre, which is about a hundred millionth of an atomic radius, or about a thousandth of the radius of a single proton or neutron. As you can see, atoms are already looking pretty big by comparison.

While some subatomic particles may seem incomprehensibly small from our point of view, it nevertheless remains the case that they are a whole lot bigger than the point whose volume is zero. Now, you may look at the point at which three perpendicular axes intersect, and think you know all there is to know about zero. After all, you see an example of this point every day when you look into the corner of a room. You even pass by the zero

point of one of these axes when you enter or exit through the door. But the truth is that zero is much more subtle than this. In fact, it's tricky talking about this point at all because, strictly speaking, it doesn't really exist. In order for something to exist it has to occupy space, and since zero represents a complete absence of space, its value can never be physically realised. When zero enters our arithmetic calculations a simple numerical convention replaces the vanishing point implied by zero. But this spatial prestidigitation remains the true nature of a point in space, and it therefore follows that just as there is no end to space, strictly speaking, there is no beginning to it either.

The particle whose radius is the reciprocal of infinity in some unit of length, however, is virtually identical to zero except that it actually occupies space and can therefore be said to have a physical existence. Now, these particles are so small that we will never be able to know anything about them. They are infinitely small, which means that they are still infinitely smaller than the smallest particle we will ever have a concrete knowledge of. But, this is not to say that such particles don't exist. Indeed, there is presently no theoretical limit to how small particles can be. The so called elementary particles are merely those which have not yet been resolved into even more fundamental components, as was the case with respect to atoms during much of the nineteenth century.

Compared to particles with dimensions such as these atoms are virtually astronomical. In fact, not only are they big by comparison, but they also consist of mostly empty space. Orbiting at a distance of about a tenth of a nanometre from the nucleus, electrons are among those particles which are too small to measure with any accuracy. Since they occupy such a negligible volume of space we may dismiss them from our account of the occupation of space within an atom. This leaves the nucleus to account for which, in the case of carbon, has a radius of about one part in fifty thousand times an atomic radius, and a volume of about a hundred trillionth of the total space within an atom. To translate this into

more familiar terms, it is like saying that atoms are 99.999999999999 percent empty space, which is the same as saying that they consist almost entirely of vacuum.

Contrasting sharply with the desolation within atoms the space around them seems relatively crowded from our point of view. In the case of a molecule of water, for example, two hydrogen atoms each share an electron with an oxygen atom, so that the spaces they occupy actually overlap. It is then a matter of some four atomic radii distance to the nearest neighbouring molecule which can be said to consist of empty space. But water is not a particularly dense material compared to metal or rock. In these materials molecules are not separated by such distances.

From the point of view of particles which are infinitely smaller than we are the space between molecules will likely be beyond the universe knowable from their point of view. Indeed, if there is no limit to how small particles can be, then inevitably there exists a level of organisation for whom atoms seem on a scale equal to what the universe is for us, which is to say, relatively empty and beyond our spatial comprehension. Being surrounded by a lot of empty space is likely to be an experience we have in common with beings on this scale of existence, just as it must also be a common experience among the many stars and galaxies. But when we look out into the emptiness not fully appreciating its magnitude, at least we recognise its existence. We have a tendency, however, to ignore the infinity within the objects with which we deal, even though we may be aware of the scale of their constituent subatomic particles. Our attitude towards these objects is usually a reflection of their usefulness to us, and so we tend not to credit them with having dimensions equal to those of the universe itself. But, the truth is that inner space is every bit as infinite as the darkness is out there.

The appearance of size is therefore relative to an observer's point of view, which may not be a particularly surprising conclusion to draw from this discussion, but it may surprise you to note that the same conclusion can also be drawn with respect to the dimension of time. In this case whether an interval of time seems long to you or not depends on the scale of your existence. What seems, for example, like a short interval from one point of view may seem like eternity from the point of view of a being whose dimensions are much smaller. Conversely, what appears to be a long time from the point of view of observers who are infinitely diminutive may seem like an impossibly brief interval to beings whose dimensions are much bigger.

Evidence of the validity of this can be seen in the apparent stillness of the galaxy. For hundreds of years astronomers have drawn fairly accurate maps of the sky, yet in all this time only very subtle changes have taken place, the various maps from different ages remain virtually identical. But the galaxy rotates quite furiously completing a revolution in about 200 million years or so, which may not seem furious to us because we exist so briefly, and are so small by comparison. But, in terms of its own experience of duration, the galaxy may rotate several times in what seems like a fairly brief interval; the pace of time from the galaxy's point of view is likely to be every bit as frantic as time has always been for us.

By the same token, the pace of time apparent from the point of view of subatomic particles is likely to be no more frantic than that which we experience even though the slowest of electrons orbit at speeds approaching one percent of the speed of light. At this rate an electron will complete each orbit in about a thousand trillionth of a second, which may not seem very long by our standards, but it may well be a lengthy interval from the point of view of particles whose dimensions are significantly smaller. To beings on this scale of existence orbiting electrons may move very slowly, like planets wandering ponderously across the sky counting time in terms of years much more than hours, minutes or days.

Of course, all of this is highly speculative and practically impossible to prove because we are separated from such creatures by gulfs in both space and time. Yet, in spite of these objections, I'm sure you'll agree that in view of the regression of abstractions the logic is at least correct, and not without a certain aesthetic appeal. It allows that not only is there a sense of infinity within the particles which constitute our being, but there is also a corresponding sense of eternity inherent in anyone's being as well. If an observer's sense of time is relative to the scale of her existence then it has in no sense an absolute value for all observers, and must therefore be as infinite as space is. Since this will be the case at any point in the spatial continuum you don't need to look out into the emptiness for knowledge of Eternity, although there's plenty of it out there. Even an instant can seem like eternity relative to the infinite complexity within the self.

As for the actual perception of Eternity I will deal with this subject a little later in this discussion. I will however say now that it is a whole lot easier to achieve than a perception of spatial infinities. For those of us who take an interest in such matters it is quite naturally associated with the sentiments surrounding birth and death. Indeed we intuitively sense that in such altered states the passage of time is a personal matter which is not necessarily subject to agreement within the group. At other times it is possible to experience a consciousness of Eternity in terms of the totality of the self, which is not an impossible perception to achieve in view of our discussion of the regression of abstractions.

In spite of whether this sort of thing interests you or not, it nevertheless remains the case that there are two ways of looking at the infinities of space and time. On the one hand you can look outside yourself at the world and the vast emptiness beyond the sky. But, on the other hand, the inverse of infinity resides within the objects with which you deal, so that at the centre of anything you care to think of time and space proceed inherently from representations of zero. You may look at a little pebble and see the entire universe portrayed

on a relatively diminutive scale. Or perhaps the tip of a pyramid better characterises the drama surrounding a point in space. But even more dramatic, from our point of view, are the representations of zero we find when we look within ourselves. The most obvious of these are the heart, the brain, and I'll bet you can just guess what else. But these can't compare with the fusion between egg and sperm in terms of sheer representational poetry. Since these are of a thoroughly personal nature and an integral part of our lives we can hardly avoid confronting them, but it is only fair to warn you that looking at yourself in this way can be disturbing to say the very least.

As a representation of zero the centre of your brain is probably most sensitive to the point I'm trying to make here, particularly the association between the midbrain and the apex of a pyramid. To think that at the centre of the midbrain there exists a representation of infinite proportions, a sovereign individual who represents the constitution of your being, is somewhat daunting. Since this individual has a virtually godlike status among the many cellular constituents, one can't help feeling just a little self conscious thinking about it. Of course, there are about two trillion other cells within the brain who represent the different constitutional factions and who share the burden of responsibility. But, ultimately it is the representational fidelity of a single neural cell located in the midbrain that promotes confidence among the many cellular constituents, in the brain's ability to relate to individuals who together comprise such phenomenal numbers.

This single neural cell and the atoms of which it is composed may well be godlike with respect to the constitution of the body as a whole but, as we shall see in a moment, it can be by no means God.

Chapter 4

It may have occurred to you while reading these pages that I have followed a somewhat tortuous path to get to this point, that really the question of how the host model affects relations between nation states is more urgent, and should have been addressed from the beginning. Well, as it happens, my belief is that this prelude has been necessary in order to correctly account for an undoubtedly disturbing feature of the model found in the vicinity of Europe. This feature is so disturbing, in fact, that it threatens to undermine the credibility of the model, transforming a theory which has been up to this point sublime, into one verging on ridiculous. If you haven't already guessed what I'm referring to then it will no doubt horrify you to learn that the outline of Italy is no accident of nature, but a deliberate representation of the planet's consciousness and executive authority. According to this view, not only is the planet aware of our presence here on Earth, but it evidently has the ability to know our every intimate detail.

I expect that some of you have been struggling to accommodate some of the science I have included in my discussion up to this point, but I hope that you will now appreciate how necessary this sort of rhetorical framework has been. Without the certainty which results from a rigorous observation of the principles and logic of science this particular contention would be very difficult to accept. It is difficult enough to accept in such a formal context without opening the door to all manner of doubt and disputation, so I hope that you will bear with me when I occasionally venture into the somewhat forbidding cloisters of this most esteemed academic institution.

Of course, you may prefer to believe that the shape of Italy represents a bizarre coincidence, an example of a quirk of nature which you can safely ignore, as has

generally been the case among observers for as long as the outline of Italy has been known to them. After all, the coast of Italy is at least several million years old, which means that the so called planetary host would have to possess a remarkable foresight, to see us as we are now from a time when the human species had barely even started.

Yet, in spite of how vehemently you may wish to adhere to this view, you nevertheless have to admit that, as coincidences go, this one is a real lulu. To depict the punitive sentiments of judicial authority so graphically, and at a point in the representational scheme where they can have the most effect, well, the irony is unforgettable at least and will probably now haunt you every time you think of it anyway. Perhaps this irony will weigh so heavily on your mind that you'll eventually be forced to change it. Indeed, if you can accept the validity of the host model at all then I hope that you will be able to accept the significance of every intricate detail. It's not as if such a delicate example of coastal 'drawing' is entirely without precedent. The British Isles represent an even more intricately drawn coastal outline than that drawn around Italy, and on a topographical scale which is virtually identical. It may be a particularly severe representation of the fundamentally judicious nature of a being who intends to scrutinise our behaviour, but I believe that the tension between Sicily and the Italian peninsula is unmistakable.

As for the planet's apparently prodigious foresight, I have already discussed how an observer's sense of time is relative to the scale of his existence. Thus, while several million years may seem like a long time from our point of view, it is not necessarily such a long time from the point of view of a being with dimensions like those of the planet. So, much as you would like to believe that humans represent the very pinnacle of being here on Earth, it is more realistic to suggest that we are like microorganisms to the planetary host, which is to say relatively simple and overwhelmingly short lived. As the modern science of medicine has repeatedly shown us, it doesn't take much foresight to outsmart a

microorganism. All it takes is the invention of a means of studying the relevant microscopic details, which is evidently no less achievable by a planet whose motive is the acquisition of knowledge just as ours is.

But, if you still harbour doubts about the significance of the shape of Italy, then consider adopting this view on purely aesthetic grounds. For a start, in more compelling terms than have ever been possible before, it sort of proves the existence of God among us. Now, I have qualified this momentous suggestion with 'sort of' for a couple of reasons, the first of which is because Planet Earth can hardly be the Lord of all the Universe as God is usually understood to be. While it may be some time before astronomers are able to detect planets orbiting even the nearest of the many stars in our galaxy, there are potentially large numbers of them out there among whom Planet Earth is but one very modest member. Even if there were something special about our planet, something especially representative of all the other planets for example, Planet Earth may seem godlike to them, but like God only from our point of view. While it may seem like God to us it will seem conspicuously subordinate from the point of view of stars and galaxies, so that when a being appears to be like God to another it is only so from that particular observer's point of view. Thus, in terms of the regression of abstractions, at any point in the representational chain a being may struggle with the power beyond itself and call it God, but perhaps without realising that it is itself God from another point of view. It is thus a misconception to think that God could ever be something absolute in a universe of spatial infinities, a universe in which a being's omnipotence is as relative as the scale of her existence.

The other reason why I suggest that the shape of Italy only sort of proves the existence of God is because the Church only ever portrays this Being in terms which are very poetic. While the Church has embraced the Bible with an affection which is consistent with its belief that it is the literal word of God, it is a very subjective text which contrasts sharply

with the objective nature of Planet Earth. Notwithstanding its evidentiary nature the Earth was once the subject of religious devotion among human communities, but has long been usurped by a more transcendental formulation. For the modern Church the Earth is merely an inanimate lump of rock given to us for our pleasure and subject to unlimited exploitation, so as far as the identity of God is concerned I'm not sure we're talking about the same thing. On the one hand the Earth is a physical being constrained by physical limitations, a being who is vulnerable and necessarily prone to error. But contrary to the physical nature of Planet Earth the Church embodies an ideal in the form of a relatively fictional being who supposedly transcends the limitations of physical existence, and who is not only incapable of error but is also ultimately invulnerable.

In spite of whether Planet Earth conforms with your image of what God should be, you can be quite certain on the basis of the shape of Italy that the planet intends to be Almighty God to us. This is not to say, of course, that the planet possesses supernatural powers beyond those which conform with the principles of physics, in all of human experience there has been no evidence of this. But it does suggest that the planet intends to judge our behaviour, indeed the most gratifying thing about the shape of Italy is the promise it represents that misdeeds will certainly not go unpunished. For those of you who have suffered a transgression at the hands of another which for whatever reason has escaped prosecution in the courts of society, it may comfort you to know that sooner or later justice will be done. Retribution is so certain, in fact, that you may end up feeling sympathy for the offender.

But before you get carried away with the simple beauty of this idea let me draw your attention to a fairly subtle issue complicating a full appreciation of it. You may be thinking that because of Sicily's long association with organised crime there must be a cosmic dimension to the struggle between good and evil which structures so much of behaviour in

society. The trouble is, however, that good and evil don't actually exist objectively like physical things such as people, planets or galaxies. On the contrary, good and evil are cultural values which exist only subjectively like beauty in the eye of a beholder. Thus, while you may like to propose that some person or thing is good or evil as the case may be, you are not raising a factual matter but rather one of opinion. Of course, your opinions may be highly valued by those with whom you discuss such matters, but this is not to say that they will necessarily be held by each and every member of society. In a plural society such as ours you have to allow for a great deal of diversity.

It is therefore not surprising to suggest that what seems like a good thing from the point of view of one observer may seem like the worst sort of evil from the point of view of another. While a well spun web seems like a good thing from a spider's point of view it is not so good for the hapless fly. Or, while the drive to the sale yards is likely to be of benefit to the farmer it means several days of inconsolable grief for the cows left behind in the paddock. What is good for the Israelis is generally bad for the Palestinians, and while industry provides benefits to most of humanity it is undeniably detrimental to the environment and inevitably to the planet as a whole.

While you may like to believe in the fundamental goodness of humanity, it is unrealistic to expect that our opinion in this regard will be the subject of agreement among all the countless beings who ever lived on this world. It is only fair to expect that for some of these creatures we represent a particularly insidious evil. We ruthlessly exploit farm animals, some of whom spend their entire lives cooped up in pens not much bigger than their bodies, for no other purpose than so that we can eat them. If some alien oppressor arrived on our shores and started treating us this way, you can be quite certain that before too long we would think of them as evil. Furthermore, with the deterioration of natural habitats due to industry and population we are responsible for the most serious episode of mass extinction on this

planet since the extinction of the dinosaurs some 66 million years ago. We have ravaged this world, and if our reproductive behaviour is anything to go by, then it is evidently our intention to develop technologies which will allow us to go out among the stars and do the same to any suitable planet we can get our greedy hands on. It doesn't take much imagination to realize how much of a threat we pose to most living things on this planet, and in spite of how innocent you may believe yourself to be, each and every one of us can be brought to account for an equal share in the burden of this outstanding responsibility.

Consistent with this sort of thinking you could argue that from the point of view of the many victims of human domination on this planet, the difference between a member of the Sicilian Mafia and a relatively honest man is so marginal as to be virtually insignificant. Even an honest man is guilty of being an accessory to all the morally doubtful things we do in the course of domination. But if you doubt the validity of such an inflammatory remark then consider how much we care about telling the difference between good and evil members of a species once it has been identified as a menace to humanity. In the case of the various pathogens which invade our bodies, for example, as far as the sufferer of disease is concerned there's no good in any one of them at all. Since such sentiments follow as a matter of reflex it is prudent to expect that the victims of human ascendancy have exactly this attitude to us. For creatures such as these all humans are tyrants of a sort not seen on Planet Earth since the demise of that legendary menace Tyrannosaurus Rex.

You will no doubt have gathered from this discussion that good and evil are categories which are as relative as those other factors I have been discussing, which is to say that in no sense do they ever have an absolute or universal value. Perhaps the most surprising demonstration of this can be found by comparing contradictory interpretations of the significance of the shape of Italy. For example, contrary to representing the legitimate rule of law, it could be seen by some observers to represent symbolism of an unmistakably Fascist

nature, profoundly legitimising the commitment of some to achieving the goal of universal domination. As much as you would like to believe in the existence of an unadulterated goodness, it seems that even the very emblem of power here on Earth is not as innocent as some might wish it to be. Of course it all depends on your interpretation of what is essentially a matter of degree, but whichever way you look at it, for better or for worse it would seem that European culture is set to dominate the conduct of global discourse.

A similar demonstration of the relativity of good and evil can be found by comparing contradictory interpretations of the significance of Sicily. While many Sicilians have a reputation for being pretty shady characters it may surprise you to see these individuals cast in a role which is entirely different. Given that all of us are evil doers of a sort worthy of punitive restitution, then against this background those Sicilians are seen to suffer the wrath of God on our behalf. They take the blame for our misdeeds, and in this respect they are positively Christlike. The fact that some Sicilians are exemplary sinners is exactly the point; they represent our iniquities in the drama of life, and as such set the standard for humanity. So, in spite of whatever prejudice you may harbour towards these individuals, I hope that you can appreciate the nobility of what is essentially a service to us all. It can't be easy bearing the brunt of the duality in our lives, but it is, according to the evidence, a service which must be performed.

Clearly, the determination of what is good and evil depends so much on an observer's particular predilection that, in the context of discussion having any kind of objectivity, emotive categories such as these are virtually meaningless. Who's to say what is universally good or bad for all beings at all times? Is it God? Is it the planet perhaps? Or perhaps it could be our human representatives. I doubt that any of these are so inclined since each has a particularly one sided view of the matter. So, in our discussion of the host model, it is actually correct to suggest that what is going on between Italy and Sicily is not a struggle

between good and evil as such, but rather an example of the conflict inherent in the very existence of power. Because of the fundamental symmetry involved in the manifestation of physical entities there will always be an opposition to whatever form a being may aspire, ready to challenge it to justify the basis on which it continues to exist. To characterise this opposition in terms of moral values is to over simplify the matter, which may well be justified in the context of juvenile instruction, but surely adults are able to appreciate the inaccuracy of this. It may look like good and evil to you but this is because you tend to look at the situation from only one point of view. Good and evil are categories which have no more depth than to represent a being's hopes and fears. The reason why they assume such monumental proportions in society has to do with the commonality of experience among members, and the sheer numbers of those conforming to subsequent group norms.

It is thus a more accurate reflection of the facts to suggest that the relationship between Italy and Sicily consists of a representation of power, but as interesting as this proposition may be the reverse case is perhaps even more so. In this case they can be seen to demonstrate the power of representation. We have already seen how these figures could represent an interest in global domination, but it may not have occurred to you how closely they relate to the sort of political representation we are familiar with in society. Just as some Sicilians represent our iniquities in the trial before God, so too do Europeans represent the rest of us as they lead humanity to the goal of achieving an inclusive global society. It is no wonder that Europe is home to individuals who come from every corner of the globe since Europe is at the head of global society, and individuals such as these are the representatives of a worldwide constituency. They may not have been elected to their positions in society but this doesn't make them any less representative. And then, as naturalised citizens of their chosen homeland, they participate in a democratic process whose history runs parallel with the development of European culture itself. For more than two thousand years Europe has

fostered the development of democratic institutions and today it shares the benefit of this experience with receptive communities wherever they may be.

There is, of course, no shortage of interest in developments of this kind. It's not as if political representation is a uniquely European phenomenon. In prehistoric times, for example, human groups were typically lead by a 'big man', and I can tell you from personal experience that even the cows have a leader whose duty is to guide the herd to ever greener pastures. What differs in the case of Europe, however, is the sheer scale of representation involved. If the shape of the British Isles is anything to go by then it is evidently the role of Europe to represent the planet in its entirety. While the planet in its totality comprises the experience of countless different points of view, according to the regression of abstractions our physical being actually embodies a summary of this experience. We are therefore in no position to claim that we can't relate to the experience of all the other creatures whose space we share. So, it is by no means trivial to suggest that Europeans might consider providing at least some kind of political representation, not only for all humanity, but ultimately for every living thing on this planet. Indeed, the scale of representation at stake here is so phenomenal that its sheer magnitude challenges Europeans to fulfil what seems to be their cosmic destiny. Of course, representation on this scale may prove to be difficult to implement in practice, there is a serious communication problem at least, but I do think it should be part of our intention. We would be less than human if we didn't feel compassion for those creatures who suffer as a result of our industrialisation of the landscape. Representing their interests in our hearts and minds is the least we can do to absolve our very guilty conscience.

This may, however, seem a little farfetched to some of you. We are, after all, never likely to see animals listed on the electoral rolls of nation states. But the representation of their interests in society may only seem farfetched to you because you tend to look at the problem from the point of view of what you believe society can reasonably be expected to

achieve. You tend to underestimate what a suitably motivated individual is capable of because the achievement of a goal such as this requires a fairly serious deviation from conformity to some fundamental group norms. You've got to treat animals as equals for a start, or at least relate to them on their own terms, and then credit them with having some intelligence, all of which require a feat of humility which most people find difficult to perform.

Unfortunately for the animals individuals prepared to represent their interests in society rarely make it to positions of much influence because the community depends so much on being able to exploit animals for their nutritional value, or for the various other useful products they yield. Yet, in spite of how grim the future may seem for both animals and natural habitats, their plight is not entirely without hope because it is usually an individual who represents the group at the very apex of social institutions. If you happen to be one of these elevated types then you may not agree with this because in your case you don't actually give a damn about animals. Nevertheless, I'm sure you will agree in principle that as you get closer to the top of a social institution the more general is the sense in which you represent it. Fewer are the numbers of those representing the group at the top of society, and larger are the numbers of those who they represent. When the institution happens to be the planet as a whole those very few individuals who occupy the lofty seat of power must bear the burden of a grave responsibility indeed. Not only must they represent the interests of all humanity, but ultimately it is incumbent on them to assume responsibility for the well-being of the planetary host itself.

Surely, it goes without saying that without the health and well-being of the planetary host there would be no life as we know it. Yet, we continue to subject this planet to one environmental disaster after another, as if we were owners of a property who could deal with it as they pleased. Indeed, ownership exactly reflects our attitude to this planet, and

together we presume to posses virtually every square inch of it. But, don't kid yourself; you can't be in possession of a being with dimensions like those of the planet. If a pathogenic microbe happened to invade your body then you wouldn't credit it with your body's ownership just because of its determination to dominate your microbial ecology. I don't think so, and yet this is the true nature of our relationship with the planet. We are like pathogens to the planetary host who is now undoubtedly ill because of us.

It stands to reason that just as the body is able to defend itself from pathogenic infection, so too is the planet able to defend itself from us if we insist on living lives which have such serious environmental consequences. It could throw the wild weather at us as has been increasingly evident in recent years, although it is unclear whether this is the natural foil to our ecological delinquency or a physical symptom of it. Perhaps the planet could conspire with other members of the Solar System and throw a meteor at us. Or perhaps it could assume a more subtle approach and visit us with natural disasters such as the curiously timed Boxing Day Tsunami which claimed more than 200,000 human lives.

It is worth remembering that the purpose of the immune system is to distinguish between self and not-self or, to put it in more dramatic terms, to distinguish between friend and enemy. While you can hardly avoid taking sides in the planet's battle to maintain organic vitality, you may think you can get away with vandalism on a grand cosmic scale but, trust me, you don't want to make an enemy out of this planet. On the contrary, as a matter of some urgency you've got to change your attitude to this fragile world, and the best place to start is by changing your exploitive abuse of animals.

Chapter 5

While the prospect of change may seem a little overwhelming at first especially in view of the monumental inertia of group behaviour, you may be surprised by what you can achieve by taking the initiative. Humans tend to be fairly easily led, and are only too happy to follow the example of a suitably practical leader. Indeed, for change to occur at all it is necessary for individuals to model the alternatives to group norms, and so a dialogue unfolds between individuals who represent the alternatives, and those who represent the group in which the change is to be applied. If all this sounds distressingly like politics then you may be forgiven for feeling that it is already too familiar, but don't be surprised by its relevance to this discussion. It is a tribute to the generality of political theory that its themes are as relevant to the discussion of ecology in general, as they are to human economic systems in particular. Themes such as the scarcity of resources, competition, domination and conflict, help to account for the sort of behaviour observed in both of these academic disciplines.

But of the various comparisons between political systems and those ordering the natural environment, it is a comparison between relations within the parliament and the topographical configuration of Europe that is perhaps most intriguing. In the case of the lower house of parliament, for example, ministers of the government act on behalf of their constituents, they are actors in the field of public policy, and members of the lower house are their audience. While this may seem like a trivial observation it is worth noting that there is an important spatial distinction between actors and their audience. They occupy different locations in space consistent with the reciprocity of their relationship. There are the ministers who occupy the most central seats in the parliament, and there is their audience who have

necessarily been displaced from the centre, and who therefore occupy the periphery. While you may have doubts about the importance of this distinction, it is nevertheless significant because of its resemblance to the relationship which exists between the British Isles and the rest of Europe. Now, don't get me wrong, it's not my intention to discuss the relationship between Britain and the European Union in any way, shape or form. But what I do mean to suggest is that there is an underlying relationship implicit in this part of the host model, and that the British Isles are at the centre of it while the rest of Europe constitutes the periphery. The United Kingdom is thus the leader of the 'house', while Europe consists of an assembly of representatives.

Of course, you may not agree with this because you believe that the true centre of Europe is further to the east, in the vicinity of Germany for example, in which case the roles would be reversed and the British Isles would occupy the periphery. There is, after all, that magnificent arc between Denmark and Italy which has long been thought of as the axis around which Europe must rotate. And then there is the strait between Denmark and the Scandinavian peninsula, which is so suggestive of the synaptic cleft found between neurons that it must surely indicate proximity to the centre of the planet's 'brain'. The British Isles are thus not an internal organ but the outward face of the planet, a topographical figure which if only we could read it would unerringly depict the planet's mood and state of mind.

While we may disagree as to which part of Europe should be thought of as its centre, the truth is that the evidence is open to interpretation. I have mentioned how the British Isles could represent the face of the planet, but this is just one of a number of possible interpretations. I can think of two other interpretations of the topographical evidence, both of which put the British Isles at the centre of this part of the representational scheme.

In the first of these I propose that because of the correspondence between human physiology and global topography I can associate the topography of Europe with certain structures within the brain. Furthermore, because I may compare the midbrain with the apex of a pyramid I am able to suppose that the planetary brain will regress to a similar point of infinity. While this sort of thinking may prove to be a delicate matter for some individuals, I believe that it is useful because it allows us to adopt such an interesting point of view. It allows that the planet's brain converges to a point of infinity in the vicinity of Scotland, in which case continental Europe corresponds with the location of the lower cranial nerves, and Greenland with the higher brain functions of the two cerebral hemispheres.

If you happen to live in Scotland then you may object to this suggestion because you find it somewhat daunting to be living in the vicinity of such a planetary convergence. While I can only imagine what it must look like for some of you, I have seen all sorts of perceptual horrors in my time, and in my experience observing space converge on a point of infinity is perhaps the most disturbing. But, if you can withstand such flashes of abject horror then you may find it rewarding to observe our particular place in time and space from this fascinating point of view. There is, for example, the curious sense in which all time and space begin and end in a convergence of very similar proportions.

While our perceptual vulnerabilities may be all very interesting, this spatial convergence may not be the only basis for an objection to this interpretation. It may not have occurred to you, but because of Greenland's location halfway between the two continents this particular view of the region associates your brain with the sort of stuff which comes out of your buttocks. Now, let me just say that, in spite of this consideration, I quite like the circular unity of this comparison. It speaks of the fundamentally introspective nature of existence while savouring the irony that so far as soil is concerned decay is the essence of fertility. In

any case it follows that both Greenland and continental Europe are peripheral to the British Isles, just as the cerebral cortex and cranial nerves are peripheral to the midbrain.

The other interpretation of the topography of this region proposes that the British Isles alone represent the head of the planet, albeit a head which is very small compared with its body. The brains of the planet are thus contained within the confines of the British Isles themselves, so those of you who recoil from that tacky inference regarding the dual nature of Greenland may prefer to espouse this line of reasoning. It's not the first time in the course of evolution that a creature has had a very small head compared to the rest of its body, the Jurassic dinosaur Brachiosaurus with its very long neck and short legs is a perfect example of this.

There is however a problem associating the planet's mouth with the topography of the British Isles, presumably the Mediterranean Sea represents this organ, and so the view that the British Isles represent the head is subject to contention. Alternatively supporting this view you could argue that the British Isles represent familial relations which suggest that our two cerebral hemispheres are characterised by this kind of relationship. Either way I believe that the former interpretation of the topography of Western Europe is superior. Familial relations such as these exactly represent the sort of sentiments which spring from the very heart of a being's brain, where its most cherished earthly motivation emerges from a wellspring of reproductive abstractions.

While the United Kingdom may claim to be the geopolitical centre of Europe it is by no means a universal centre, or even the most interesting centre in terms of the experience of the planet as a whole. The British Isles are, in fact, just one pole in a representational field of two, the other pole being at the centre of Canada's Hudson Bay some 90 degrees to the west. Hudson Bay is itself by no means the most intriguing centre of the

planet either. For an air breathing vertebrate whose body represents the polar field extending from the centre of its brain to its rectum, the most profound centre for this creature is roughly half way between these two points, a point which coincides with the top of the diaphragm. Thus in terms of the host model the meridian of longitude which bisects the field extending from the British Isles east to Hudson Bay is 135 degrees east of Greenwich, a meridian which passes through the south of Japan, and Australia. A meridian of longitude is, of course, not strictly a centre either but a great circle whose origin coincides with the gravitational centre of the Earth. But in a sense a great circle is a centre. From the point of view of the vast emptiness beyond the planets, for example, the Earth will seem like a tiny point of light. Thus a circle will seem like a point to you if you happen to be much bigger than it, just as a point will seem voluminous if you happen to be sufficiently small.

Notwithstanding the need for this complication it follows that the Asia-Pacific region is the true centre of life on this planet, while everything else is ultimately peripheral. It is, however, worth noting that as central as this region may be for us it is no more absolutely central than the British Isles were. For a start the Asia-Pacific region is peripheral to the centre of the Earth, which is in turn peripheral to the Sun, and so on throughout the universe as relatively peripheral bodies get ever larger and larger. The truth is that there is no absolutely central point in the universe, or perhaps it is closer to the truth to suggest that every point is absolutely central since space proceeds equally from any point in every direction infinitely. I'm inclined to suggest that long ago when the universe was much younger it occupied a volume of space so small that it may have seemed to be a central point, but a point which is nevertheless only relatively so. From the point of view of entities who were sufficiently smaller than the universe at this time it would have seemed as big as it has ever been because space would have been just as fundamentally continuous.

To pursue this thinking for a moment, I will add incidentally that the situation is far from certain. Indeed, there seems to be some confusion in the cosmological literature regarding the early universe with some suggesting that it began not at a particular point in space but rather throughout space at a point in time. Presumably these guys object to the inference following Hubble's discovery of a universal expansion factor, that galaxies with distances greater than 13 billion light years from here must have recession velocities greater than the speed of light. For myself I prefer the view that the universe began as a very dense singularity with a temperature in excess of some 10 billion Kelvin, and I believe that the regression of abstractions supports this view. I could therefore argue that according to the regression of abstractions material existence has a deeper significance than merely being the physical vessel of our lives. According to this view our bodies consist of an abstract representation of the universe, a kind of road map of past experiences, the memory of which records our emergence from the very genesis of time itself. It is therefore by no means trivial to suggest that the fusion between egg and sperm represents not only the beginning of each of us as individuals, but in a sense it also depicts the beginning of that universe which we share as a group. It is no wonder that reproduction is so cherished among human sentiments when it can be seen to have such cosmic significance as this.

Yet for all its significance as a representation of the very origin of time and space the developing embryo is conceived in a location which far from coincides with the centre of its maternal host. Even though it may represent the centre it has been displaced from this position because of all such representations there is one more characteristic than this. Given that the archetypal central point would have to be the original Big Bang itself then the heart which beats at the centre of the vertebrate circulatory system is perhaps the most accurate representation of this. While the comparison may seem fanciful to you it nevertheless remains the case that in order to pump blood to the most distant capillaries in the

body the heart practically implodes at a rate of a little more than once every second. Since the heart is located close to the centre of the body, and in view of our discussion of the regression of abstractions, these implosions are in a sense reminiscent of the fiery genesis of the universe. The heart is thus a remnant of the big bang according to which blood will radiate and return in time with the constant flood of circulation.

But, consistent with the apparent evacuation of the centre, it is worth noting that the heart is itself displaced from this location by a few centimetres, the true centre of the torso being about half way between the aorta and the vena cava at a point perpendicular to where these vessels pass through the top of the diaphragm. My point is that on the basis of this discussion it is reasonable to expect that the planet's 'heart' might be similarly displaced from the centre, namely that meridian of longitude 135 degrees east of Greenwich as mentioned earlier. For this reason I believe that the Indian subcontinent represents the heart of Planet Earth, that pulsing wellspring of global experience according to which the ebbing tides of life have their beginning and their end. It is therefore hardly surprising to observe that Indian culture has a very distinctive character, it is easily the most complex society on this planet, and has long been influential throughout the entire Asian region. Furthermore, the impact between the Indian subcontinent and the southern shores of Eurasia provides a curious indication of the fundamentally violent nature of the heart. Many years ago the Indian subcontinent was attached to the southern edge of Africa, and has since migrated into its present position resulting in a dramatic continental collision, and the subsequent uplifting of the Himalayan mountain range.

Yet, as fanciful as this may seem to you, I believe that if you can accept the validity of the host model then you will ultimately agree with an association between the different topographical regions and their respective internal organs. If, for example, I were to associate the Middle East with the behaviour of the throat then I'm sure you will agree that

the association is as intriguing as it is axiomatically formal. It is therefore by no means contentious to compare various features of this region with features of its counterpart in the case of air breathing vertebrates. Thus, in terms of human experience, the throat is involved in the performance of several physiological functions such as respiration, and the transfer of nutrients through the oesophagus. But perhaps most interesting in this context is its involvement in the production of speech.

Speech is, of course, the means by which a creature may externalise its thinking, which is interesting in this case because of the region's long association with representing what its people believe to be the voice of God. From about the 16th century BC Jewish writers have interpreted this belief on behalf of their people, while Christians believe that the New Testament contains the literal word of God, and in a similar sense the Koran is believed to be the word of God for Moslems. But, without wishing to appear flippant regarding what is undoubtedly a delicate regional suggestion, the only other thing I have to say at this point is that by the same token the people of this region seem to be in a position to speak for the rest of humanity. Now, the sense in which this is true may be no more than metaphorical, it's not as if the Middle East represents the constitution of this planet as clearly as is the case with respect to Europe. But I do believe that both the people and events of this region provide a fairly unequivocal indication of the overall mood prevailing within human society at any particular point in time. The region undoubtedly constitutes a vital strategic nexus in the conduct of human affairs, and this has likely been the case for a very long time indeed.

While the voice may facilitate the realisation of a being's intentions it can also betray feelings of a sexual nature which may partially explain why there is so much antipathy among Arab nations for the domination of America in modern global society. That America represents the sexuality of society today is an assertion about which there can be no doubt.

Apart from the rather obvious inference which follows the location of America within the host model itself, evidence of the validity of this assertion can be found in the progressively casual attitude Americans have regarding the public exhibition of nudity. You could, of course, argue that this attitude is by no means unique to American culture; that Europeans also have a fairly relaxed attitude in this regard, but it is worth noting that America is essentially a European culture. The relationship is rather like that which exists between the gonads and certain centres within the brain where the regulation of these organs is performed. Yet it is nevertheless within the gonads that the crucial gametes are produced, thus it is America rather than Europe that is in a better position to characterise the sexual identity of this planet.

If you doubt that this is so then consider that extraordinary string of islands which stretch from Cuba in the north to Grenada at the southern end of the Lesser Antilles. Have a look at a map if you're not already familiar with this part of the world because between the Greater and Lesser Antilles the impression one gets of a fully motile sperm cell engaged in the act of fertilization is quite remarkable. Add to this the imminent penetration of Cuba into the Gulf of Mexico and the ensemble is complete. There can be no doubt that this region depicts the ultimate goal of reproductive behaviour, and so it follows that as a participant in the region American society will tend to foster an interest in developing a progressive sexual identity.

So, imagine how infuriating it must be for a culture which is in possession of a fairly conservative attitude to sex to have a country which is bent on its liberation dominate the world in which it must increasingly take part. Now, don't get me wrong, I'm not suggesting that we should all convert to Islam, or to the standards of American society, or to any other code for that matter. I think the whole point of modelling international relations on biological ones is that it allows us all to be functionally different, and that consequently we

all have important and differing roles to play in maintaining the vitality of the integral global organism. There's no point in expecting people to share identical values, or to behave in ways which are perfectly uniform because organisms depend on being able to perform functions which are highly specialised. Thus an understanding of the need for the structural differentiation of roles in society, and a tolerance of diversity, is more useful than obsessing over a universal standard according to which we should all feel obliged to conform.

Yet, in spite of this sort of thinking, let me say that a little conflict is not necessarily a bad thing. In the parliaments of democracies who otherwise champion the cause of peace in modern society there is the Government, and then there is the Opposition. While 'hate' might be too strong a word to describe their feelings for each other, they are nevertheless antagonists in the prosecution of a very bitter rivalry. This rivalry is, of course, no accident. It is the practical consequence of centuries of representational experimentation throughout which parliamentary actions have arisen from the competition between different policy alternatives.

But on a deeper level the rivalry between political parties can be seen to represent not only the conflict between nations throughout the course of history, but also in a sense the competition between ecological alternatives in nature. While this may have been a controversial view in the past it is now a fairly natural conclusion to draw from an observation of the regression of representative summaries. If all of material existence is implicated in the traffic of information then there isn't a creature in time and space who can resist having some kind of iconic significance in this context. For many years I have found it amusing to think that during the Pliocene, before humans began to dominate the environment, the community of animals populating the grasslands was led by creatures other than those primates who were our ancestors. In terms of the representational significance of members you could argue that the political conservatives of the Pliocene era were led by elephants who

stood for stability, universal representation and the maintenance of the natural order. And, necessarily contradicting them, the radicals were led by big cats who presumably intended to overthrow the authority of the elephants, and impose their own view of who should be allowed to dominate the grassy savannah. In spite of whatever controversy may surround this view my point is that it is only by means of the ultimate test of conflict that champions are made, and by which the truth about the nature of existence is established.

It is therefore possible that the conflict between political conservatives and radicals is not limited to the case of such relations in Western society, but is truly a universal phenomenon. In terms of the sort of political spectrum which Westerners are familiar with, Arab nations have a distinctly conservative outlook, while the Americans are by comparison relatively radical. But, to put it in even more general terms, Arab culture is so old that for many centuries its institutions have resisted the urge to change and adapt to the ever evolving global situation. So, compared to a culture of such notable antiquity America is a very young society with a particularly vibrant character, and a determination to transform the political and economic institutions of the entire planet. The conflict between the Arabs and the West is evidently not only one between views which hail from opposite ends of the political spectrum, but it is also a conflict which has a fairly serious generational dimension. Given both the age of Arab culture and the geopolitically sensitive location of its home territory I would suggest that these factors make them the senior members of Planet Earth, and thus it makes America a member who is comparatively junior.

Yet, as young as American society is compared to some of the older cultural institutions occupying the Eurasian continent, Australia is a nation whose cultural identity is even younger. In fact it would seem from Australia's location in the host model that it is destined to be forever young, a perpetual reminder of the hope inspired by the birth of successive generations. While Australia is renowned for its sporting prowess and its liberal

political institutions perhaps the most intriguing reflection of Australian culture is the rather obviously childlike innocence which it brings to all of its endeavours. While Australians may naturally tend towards a certain naivety it is curious to note how the character of a people may reflect the role which they evidently play in terms of the functionality implicit in the host model. You could look anywhere in the world and recognise the sense in which a people's behaviour and attitudes have been moulded by their environment, especially the global context in which their geographic environment fits.

It is thus in no sense insulting, for example, to describe American culture in terms of adjectives such as sexy, brazen, and flagrantly precocious because this is inherently their nature. It is also not likely to offend the Arab community by describing them in terms of adjectives such as punctiliously scriptural, because they're actually proud of this quality. Yet, in spite of the suitability of such descriptions, this sort of talk is potentially inflammatory so let me confine myself to remarks of a fairly general nature. In fact, before I draw this chapter to a close there are only two other topographical features I wish to comment on in this context, and they are in the vicinities of Japan, and Africa.

In the case of Japan and its regional vicinity the organ I associate with this topographical feature is the adrenal gland. The adrenal gland is a fairly small component of the endocrine system which sits on top of the kidneys and secretes a variety of hormones the most interesting of which is adrenaline. While the kidneys are located midway between the top and bottom of the abdominal cavity, a location which corresponds with the mid Pacific Ocean, the adrenal gland is found at the superior end of this organ. So I believe it is not unreasonable to associate this gland with the western shores of the Pacific Ocean and Japan with the physiological behaviour of its secretions. While most of these hormones are involved in the regulation of the body's metabolism, adrenaline actually prepares the body for whatever action might be required in the event of an emergency. The secretion of this

hormone results in an increase in heart rate, and a rise in blood pressure which prepare the body to either stand and fight an adversary, or to take flight and fight another day. This is interesting because it provides a theoretical basis on which to interpret the influence of Japan and the Korean peninsula on the arousal of the planet as an integral global organism. It is possible that these cultures have a more profound effect on the mood of humanity than they have previously been given credit for.

As for the continent of Africa, and the island of Madagascar, it is curious to note the coincidence between the utility which some creatures derive from their forelimbs, and the employment of African slaves throughout much of human history. One only has to look at the case of birds to realise that the forelimbs have a very special meaning for some species. We mustn't think that because of our manual dexterity we are the only members of the animal kingdom to exploit the potential of our forelimbs. I can think of a lot of other creatures who do things with their front legs, and if our dependence on African labour is anything to go by then we are evidently already involved in the planet's intention to do likewise. It is therefore likely that Africa represents yet another example of how the character of a people may reflect the role which they play in the global organism. But, if this is the case then of grave concern is the abject poverty which so many African people endure. If the African people faithfully represent this part of the global organism, as seems likely, then it would appear that the planet's forelimbs are taking considerable damage. While the plight of the African people may in fact be normal from the planet's point of view, from our point of view it is a calamity of monumental proportions, a moral eyesore whose relief should become a major global priority.

Yet, in spite of how desperate the situation is becoming in this part of the world, it is not likely to develop into an international conflict. I mentioned earlier how a little conflict is not necessarily a bad thing, but a big conflict is another matter entirely. With the

ever increasing competition for scarce resources in the world of today conflict on this scale would appear to be very likely. We would do well to remember that the world has been transformed since the middle of the twentieth century. With the invention of weapons of mass destruction we should have a pretty good idea of where we are going wrong on this planet, although you will probably want to deny what some believe to be the motive for the invention of these weapons. Certainly the shape of Italy suggests that the planet expects us to err on a scale which has global ramifications, and so I come to a subject which is both crucial and timely in this context, namely the unseemly multiplication of human numbers. I believe that there is only one ecological context in which we may interpret the dramatic significance of the shape of Italy, and that is with regard to how careless we have been with our reproductive behaviour which seems to be relentless.

Chapter 6

Ten thousand years ago, when human cultures first began to farm the fertile land between the rivers of Mesopotamia, young hearts were enthralled with the vision of a new age. Urban living arrangements entailed an intimacy which, in the union of males and females, beckoned the hope that this agricultural potency could thrive among the envious schemes of destiny. But even then the old sceptics of the day could foresee that, sooner or later, it would all come to a bad end. We could make a better life for ourselves, but even this had some inscrutably ominous consequences. When the Old Testament book of Daniel was written some seven and a half thousand years later, it would seem that such sentiments had grown only stronger because this book deals with the coming apocalypse in some detail. Indeed, the very premise for the Christian New Testament is that a Saviour will intervene on behalf of the faithful at the End of Days, and that those who share the sacraments should bide their time until his coming. Today, young hearts are again filled with the vision of a new age. A lot has happened since those early days, but the signs of the times are only more ominous.

In the half million years since humans devised weapons for the sake of armed conflict with each other, the ability of rivals to dominate the landscape grew in proportion to the technological sophistication of weapons. Indeed, the arms race is not a phenomenon you can realistically limit to the first half of the twentieth century, which is when the phrase was coined. It is, in fact, a phenomenon which dates back to the earliest development of armed conflict. But this factor in itself could have been quite innocent were it not for the sheer multiplication of competitors. After all, conflict is not a recent development on Planet Earth; it has probably been a feature of ecological systems from the very beginning. It is only in the context of the phenomenal numbers observed in human groups today that this sort of

escalation could be a problem. In spite of serious social and ecological consequences, both the pressure to conform within the group, and the vanishing minority of those proposing an alternative to group behaviour, ensure that reproduction remains the dominant culture.

As each of us knows from his, or her, own experience of family life, reproductive conservatism is so resistant to either criticism or reform that the population crisis, and the ecological consequence of this, is now the single factor limiting the survival of humankind. With the existence and causes of global warming now a matter of substantial agreement early in the twenty-first century, there can be no doubt that the multiplication of human numbers is responsible. I don't know how you can extricate the family from implication in this matter. I've tried to hold my own parents responsible for the problem, but parents are virtually immune within the family setting, and children, having comparatively few rights protected by law, are emotionally ill-equipped to successfully contradict parental authority.

I'm not aware of a discussion of the subject in the historical literature, but it wouldn't surprise me to learn that thousands of years ago people could foresee that human numbers would eventually become a problem. But while heroic critics of the past, such as Daniel or Jesus, may have had their criticism of reproduction constrained by the rhetoric of their day, today, with the invention of weapons of mass destruction, and for perhaps the first time in human history, it is possible for a social critic to be openly hostile towards the family. Now, don't get me wrong, I feel strongly about my affection for members of my family, but there's no way I'm going to have children on this planet. Of course, you probably think I'm crazy, or maybe you think I'm gay, but I think the reasons for adopting this view are obvious. Since military targets tend not to assemble in large circular formations twenty or thirty kilometres across, nuclear weapons are thus designed expressly for the elimination of civilian populations. It would seem that military planners have long recognized the problem of

excessive human numbers. So before you make matters worse perhaps you should confront this view, and consider the consequences of perpetuating what is for the most part a habit which you reinforce without much thinking.

And in case you'd like to blame our environmental problems on the development of industrial technology, let me point out how the discovery of the host model is going to complicate this issue. For example, more than simply observing our development over the course of the last several million years I believe that the planetary host has been actively involved in our cultivation as a species. In this case the planet may be implicated in the selective breeding of future generations, but more importantly in the development of the social and intellectual skills required by a group whose intention has evidently been to dominate the entire planet.

An interesting inference of this is the feeling we may get that we have been set up, so to speak. We have been 'framed' in the crime of our ecological delinquency by the planetary host herself, and our frustration with the dilemma of our environmental responsibility is understandable. I can't believe we are wasting our time on this Earth in the pursuit of a self serving technological mastery. I believe that our development of technology brings the entire solar system closer to an acquisition of the knowledge we obtain, and I believe this to be the ultimate purpose for which we have been genetically groomed over the course of so many years. In spite of the implication of industrial development in our ecological quandary, I believe that reforming our reproductive behaviour would be easier to achieve than casting doubt on the wisdom of our technological advances and returning to a simpler technological society. I believe we have been cultivated by the planet so that we may acquire cosmically significant information on its behalf, and the ecological cost of technology has been the sad but unavoidable corollary.

In spite of whether or not you agree with this view I'm sure it will be clear to you that in a finite world there's got to be an upper limit to the numbers which this planet can sustain. I have mentioned the possibility of some kind of military action as a consequence of excessive growth, but there is an ecological dimension to consider as well. The world population passed the six billion mark during the last decade of the twentieth century. At that time the average annual growth rate was 1.25 percent which equates to a population doubling time of about 55 years. Since then the rate has been falling off slowly and, to tell you the truth, it has actually been improving since the early 1960s. The rate peaked in 1963 with an annual increase of about 2.2 percent, which meant that human numbers were expected to double in the very slim interval of just 32 years. Had this rate remained constant into the future humans would number in excess of fifty billion by the end of the twenty-first century, and a staggering third of a trillion within two hundred years from now.

A number of this magnitude represents a fairly groundless assumption, however, because the global ecology simply could not afford to support so many humans. An ecological cataclysm would have occurred long before this eventuality which would decimate human numbers, and the first signs of impending doom are already evident in the drama of climate change and global warming. There would probably be human survivors of an event such as this, but their numbers would be fairly small. Fortunately the rate is now in decline, but even so the US Census Bureau predicts that a population of nine and a quarter billion humans will occupy Planet Earth by the middle of the twenty-first century. At this time they expect our numbers to continue to rise, doubling in as little as 150 years, so two questions occur to me since at this rate our numbers will inevitably exceed the planet's ability to accommodate us. The questions are firstly, just how long have we got before the cataclysm arrives, and secondly, what sort of measures can be taken in the mean time to avert disaster?

Now, the answer to the first question is, of course, very speculative. There are numerous factors to account for, and I can't claim to have a definitive knowledge of how they will affect the time frame. Nevertheless, I believe that the environmental indicators are quite legible, and that our difficulties are a matter of common knowledge. While some may have a vested interest in denying that there is a problem, there is a growing consensus among members of the community that the environmental situation is getting very serious.

According to one time US Vice President and Nobel laureate Al Gore, we have until about 2015 to dramatically alter our ecological behaviour before we pass the point of no return with regard to climate change, and relinquish any hope of living in a world which resembles the one in which we enjoy living today. Today we enjoy fairly mild temperature extremes, but if we continue to pump carbon into the atmosphere at the rate at which we are doing today, then in as little as 50 years from now ice could vanish from the face of the Earth, and temperatures would rise to levels which we would find unbearable. Not only would temperatures rise, but the melting of the polar ice caps would cause sea levels to rise by more than 20 feet, so that many tens of millions of humans would be displaced from low lying coastal areas, vastly complicating the problems we are likely to encounter from just dealing with the change in the weather. If the permafrost located on the Asian and North American continents were to melt then billions of tons of methane gas would be released into the atmosphere which would make the reduction of greenhouse gas emissions that much more difficult for us to achieve. Higher global temperatures would result in a higher incidence of bush fires which would also add to global carbon emissions, drought would become more prolonged and widespread, and stormy weather would be very much more severe. It is therefore with some urgency that we deal with the causes of global warming and the most fundamental of these is our evident inability to control our prodigious numbers.

I therefore suggest on the basis of the damage already done by industrial development that the global ecology will be unable to support the sort of human numbers expected to occupy this planet within the next one hundred years or so. Within this time frame we may number no more than 10 billion, but even such modest numbers may prove to be decisive. If the ecological fundamentals are showing signs of deterioration today with just 6.5 billion humans behaving badly, then the situation is only going to get progressively worse as the population approaches one and a half times this number. The number by itself is not the critical factor, but rather it is the number in the context of the time frame that threatens to become an obstacle. Over the course of the next one hundred years the damage humans will do to the environment is going to compound, so that each successive ecological disaster will have more and more serious consequences. In fact, I'm inclined to suggest that a hundred years represents a fairly conservative estimate of the time involved. Half this interval could well be closer to the mark.

As for the question of what can be done to remedy this problem I know that a lot of you would like to believe that cleaner fuels, and the recycling of rubbish will be enough to meet this pressing need, but I think we both know that this is not the case. If nuclear fuels are being proposed among the cleaner alternatives to the fossil fuels which have been polluting the atmosphere, then I think it is clear that we have not learned anything from our recent troubles. Prior experience has shown that it is a matter of prudence to expect the worst when it comes to the production and use of certain materials. In the case of nuclear material this will involve a life threatening contamination which will remain active in the environment for thousands of years to come. It is thus a tribute to the desperation of the energy crisis that this fuel is being touted as a viable alternative to coal in the production of the electricity which is now an essential feature of our lives. There have already been several incidents involving nuclear materials, so it is with reluctance that governments resort to the use of this

fuel. If there were any cleaner alternatives available then you may be sure that they would already be in use.

The production of electricity on a scale required to maintain the standard of living we have become accustomed to could lend itself to cleaner technologies such as the much anticipated Carbon Capturing Sequestration, and progress is also being made in terms of the more efficient use of non-renewable resources. The invention of the automobile revolutionised transportation, but the volume of exhaust resulting from the mass production of these vehicles added substantially to the greenhouse gasses responsible for global warming. It was thus with some urgency that electric cars were developed late in the twentieth century. The first of these lacked the range of conventional vehicles, and took so long to recharge that they failed to win much support in the automobile market. But with the development of lithium batteries, electric cars could go as fast as conventional vehicles, had a range of several hundred kilometres, and recharged in a fraction of the time it had taken earlier models. These vehicles drew power from the electricity grid when they recharged so were not entirely free from implication in the pollution of the atmosphere, but they were a lot less polluting than vehicles which relied on the ignition of fossil fuels such as petroleum. While petrol and diesel cars have always had a reputation for being atmospheric polluters some manufactures have been able to improve the efficiency of these cars in recent years.

The development of electric vehicles and improvements in the efficiency of petrol cars are a vital step in the right direction, and are but one example of a range of adaptive measures designed to limit the impact of human behaviour on the environment. Among other measures are the recycling of packaging and water, the use of safer pesticides and fertilisers, and the development of a better understanding of land management, all of which address critical environmental problems. But, while measures such as these represent a vital adaptation to what is undoubtedly a critical turning point in the history of mankind, they

are nevertheless fairly cosmetic. The sort of thinking involved in the development of such policies assiduously avoids confronting the real reason for our problem, which is of course, our apparent inability to limit the multiplication of our numbers. Presumably this is because reproduction represents the holiest of holies among human communities, the one universal value which unites all of mankind, and which everyone on Planet Earth can agree to adopting equally. Either this, or policy makers just can't imagine what might be a compelling alternative to the reproductive behaviour of so many.

To be fair it's not the place of policy makers to come up with whacky ideas such as those I am presenting to you here. The responsibility for this sort of discussion lies squarely with cantankerous individuals such as myself. I therefore suggest as a matter of civic duty that an alternative does exist which depends to a large extent on assuming a dramatically different view of biological function, and which I will introduce in the following chapters. Let me warn you now that I intend to discuss the relationship between sex and death, which will probably be a sensitive subject for many readers, but I believe that it is warranted under the circumstances.

But, if you happen to be among those who believe that I'm airing the views of a crackpot, that I am needlessly alarming readers because there is not a problem with human numbers, then I ask you to explain the declining growth rates. A principle of population ecology which observation has proven to be reliable is that a species' numbers will tend to grow until affected by external factors such as disease, predation, or competition by ecological rivals. In the case of human numbers estimates over the course of time tend to bear this out with steady increments being reported until sudden losses occurred such as during the Bubonic Plague which ravaged much of Europe during the 14th century. With the declining rates observed today not resulting from an increase in the death rate it would seem that if I am

a crackpot then I am not alone because the birth rate is in decline. Couples are evidently choosing to have smaller families.

The question is, of course, whether couples are responding to their perception of the environmental crisis spontaneously, or whether they are being surreptitiously manipulated by governments with grave environmental concerns. When the United Nations met to discuss the relationship between growing human numbers and the environment in 1994 the Program of Action they adopted emphasised the need for the empowerment of women, and the universal acceptance of equality between the sexes. Presumably their intention was to provide women with a role other than the rearing of children, and if you asked women in western society why the birth rate was so low then most of them would tell you that it was because women now had jobs and a career. Clearly, recasting the role of women in society is an effective solution to the problem of excessive human numbers, and offers the hope that something similar may be adapted to developing nations where the problem is still very serious.

While recasting the role of women has barely even started in many parts of the world, it has been a distinguishing feature of western society since the reinvigoration of the feminist movement in the early 1960s. I doubt that women were responding to environmental concerns when they fought for equal rights however, or that by encouraging this endeavour the government was fulfilling an environmental agenda. The women's movement began around the middle of the 19th century, long before our relationship with the environment was seen to be a problem, which is lucky considering the significance of women's issues in the context of reducing human numbers. It is, however, worth noting that Thomas Malthus briefly discussed the problem of feeding the growing multitude in the late 18th century, but his anticipated famine failed to eventuate, and his prophetic vision soon became an urban legend. It is only recently that governments have fully grasped the problem with human

numbers; evidently the last thing people want to accept is the implication that their reproductive behaviour has adversely affected the environment.

This is not to say that people haven't thought about it. The overcrowding in our cities is ominous to say the least, so there's been some deliberate clouding of the issue as people attempt to hide their precious feelings behind a thick industrial smokescreen. Perhaps the most palpable example of how people resort to some appallingly foggy thinking in order to avoid confronting this issue concerns the development of the space program. Now, I know some of you will want to argue that space exploration enriches our lives with a profound knowledge of the universe, and all sorts of other benefits such as telecommunications, and the development of cutting edge technology. I'm not saying I have a problem with this because I'm as much a beneficiary as the next person, and I wish the guys at NASA, or whoever else might be involved, the best of luck in all of their endeavours.

But I believe it is dangerous when mums and dads at home start thinking that it is okay to populate this planet to the point of extinction, because the guys at NASA are making it possible to go out into space, and colonise every corner of the galaxy. Let me be the first to acknowledge that there is a little exaggeration woven into this suggestion, colonising the galaxy is not likely to happen in the foreseeable future, but don't try to tell me that, for a lot of you, this is not your intention. After all, I hear you argue, what else can we do with the power of technology, how else can we quench our insatiable thirst for knowledge? Surely the understanding we obtain brings the universe closer to an objective which is ultimately identical.

It is all very well to make plans which ensure the survival of your children, but do you have to vandalise the planet in order to satisfy your reproductive urges? Is this the love of parents for their children, or is it really evil? These are questions which should give

you pause, but I believe that these are the least of them. You should be asking yourself more serious questions such as do you think this planet is going to let you get away with it? Or, do you really want to go out into the unknown with a reputation for being so destructive? And, do you think that the planetary beings you intend to encounter out there are going to make you welcome? I don't think so. Yet our amusement with movies such as 'Star Wars' suggests that we believe conquering space to be not unlike mastering the sort of conflict we have here on Earth. While space opera is all very entertaining it depends on a fairly misleading view of the universe, because the truth is that the sort of beings who exist out there are likely to be much more powerful than we have previously given them credit for. Stars and planets may seem lethargic from our point of view, but this doesn't mean they're unable to defend themselves from us. They're very old, and very big, and if our immune system gives us any indication of the sort of defences they may have, then they will likely make short work of the impudent intruders we evidently intend to become.

While such a titanic confrontation as this depends on our being able to actually get across the emptiness of space, I doubt that people begin to grasp the distances which this voyage could involve. Our spatial sense may be limited by our rather two dimensional existence, but there is a way of illustrating the scale of the problem, so let me tease you with an amusing comparison. Let's assume for the sake of argument that humans, along with most of the mammalian species, perish in the not too distant future, but that the environment is not so severely damaged that it can no longer support a modest system of ecological dependency. Let's also assume that the ecological remnant suits the insect survivors rather nicely, and that in some sixty or seventy million years from now the ants find themselves at the top of the food chain, and in a position to dominate the entire planet. You've probably already figured out where I'm going with this, so let me just say that even if ants were able to develop a technological society capable of space travel, the problem of crossing the emptiness of space

would be the same for them as it is for us. Or perhaps, to make my point clear to you, I should put it the other way round. The problem of getting across the distances involved in space travel is no different for us as humans, than it would be for a colony of ants equipped with ships the size of shoe boxes. Compared to the distances between even neighbouring stars ants and humans are identical in scale, just as they are compared to the dimensions of subatomic particles. Good luck to all who sail on the Starship Anterprise.

To be fair, prior to publication of the discussion contained in this document, it has not been possible for people to think of stars and planets as powerful beings capable of defending themselves. But this is no excuse for the foggy thinking which I believe many people put themselves in a position to depend on. It seems to me that some people are determined to deceive themselves with the view that the multiplication of human numbers does not adversely affect the environment, so that they may continue to believe in the righteousness of having children. Yet, at the same time it is evidently their intention to develop technologies which will make it possible to evacuate the planet when the damage is so great that it can no longer support them. Surely a child is able to recognise the contradiction involved in this thinking, yet virtually every adult who is familiar with space opera inevitably concludes that evacuation is the ultimate goal of space exploration. In fact, I'm inclined to suggest that those who promote the development of the space program see the population crisis as exactly the sort of motivation governments need in order to give their project a sufficient budgetary priority.

Contrary to the premise for such forward thinking, let me say, however, that the question of evacuation is moot in any case because space travel is unlikely to be sufficiently advanced within the critical time frame of the next one hundred years or so. And, even less likely is the hope of being able to pack several billion bodies into whatever rattling machines we may cobble together in order to begin our galactic exodus. Even if we were able

to survive for several thousand more years, and succeed in our galactic endeavours, then it is likely that only a handful of emigrants will ever venture into the unknown compared to the masses left behind here on Earth. I doubt you will need much foresight to realise that, whichever way you look at it, sooner or later we are going to have to get control of our numbers, because for the vast majority of humans here on Earth escape to another world is simply not an option.

Without wishing to brutalise what is undoubtedly a delicate human suggestion, I believe that our arrival at this conclusion leaves us with only two alternatives. Either we lower the birth rate by whatever means our ingenuity is able to come up with, or we raise the death rate, which is of course unthinkable. It is unthinkable for me, at least, and for most of humanity most likely, but not for every one of us. I like to think of myself as a man of peace, and so I dedicate these pages, and indeed my very life, to reducing human numbers by means of the first option. But it would be naive to expect that everyone will want to share this view. Sadly, there can be no doubt that when it comes to the crunch, when the choice is between preserving the health of the environment and the culling of surplus numbers, inevitably some will take it upon themselves to protect the ecological basis of our existence. They will likely undertake this action with unfaltering confidence because it is so easy to rationalise its justification. Since any one of us will prefer the survival of as many as possible in the face of complete destruction, the environmental fundamentals must be preserved at all costs, even if this means that some must sacrifice their lives so that others may endure. With any luck those war makers who intend to reduce our numbers in this way will resort to biological weapons in order to achieve their goal, which will have a minimal impact on the environment. Surely they will agree that the contamination which results from the use of nuclear weapons will be of lasting benefit to no-one.

I realise that I am assuming a fairly sombre view of the likely course of human history, and I sympathise with those of you who are filled with apprehension. But I don't know how you can go through life without confronting this prospect, it seems so obvious to me. And I don't know how you can bring children into the world when having children is so obviously the problem. But what really staggers my comprehension is how people can enter into an elaborate discussion about ecology and ecological factors affecting the environment, without asking questions about population. Surely population is the most fundamental ecological factor!

I have already told you I don't have any children, and so I don't know as much as most of you about what it's like to bring one into the world. But, I do know from my natural sympathy for children that there comes a time in their childhood, just before they reach adolescence, when they turn to you as parents with the question "I've seen how quickly the world can change, is everything going to be all right?" Now, this question may never be vocalised, it may be no more than a look of apprehension, and it may be more common in girls than it is in boys. But if you can't confidently answer in the affirmative then I think the child's adolescence is going to be fraught with complication. In fact, I'm inclined to believe that parents are having so much trouble with their adolescent children today simply because children doubt the truth of their parent's answer to this question. It doesn't take much insight to realise that this planet is in very real danger, and that things are only going to get worse before the reason for our problems can be met with an effective solution. If you happen to be a parent with children approaching this age then you might consider answering this question honestly.

You may be pleased to hear that I have only one more story to tell before I draw this chapter to a close. It concerns the ecological behaviour of a few of the other creatures with whom we share this world. While it may be a somewhat bitter reflection of our

own behaviour on this planet, I particularly wanted to compare our attitude to creatures who present themselves to us in relatively small numbers, with those who populate the world in numbers which a comparatively large.

Firstly, let me say that the swarming of various creatures in large numbers is neither new nor unnatural. Bees and wasps swarm fairly frequently as a natural part of colonial life, and they do so without offending our sensibilities. Swarming is in fact so innocent that the human body may be thought of as a swarm of sorts, and in view of the regression of abstractions it is amusing to think of the Sun as a swarming colony of individual atomic particles. The mass of the Sun in kilograms is about twice 10 raised to the 30th power which means that the Sun contains about 10 raised to the 57th power in terms of its atomic population, which is quite a large number. Such numbers suggest that the Sun coordinates a monumentally frenzied activity compared to the relatively minor frenzy going on within animal bodies here on Earth. While the Sun and Solar System may be a hive of celestial activity Earthly creatures such as locusts, cockroaches and mice pale in significance by comparison. But when these creatures swarm we feel threatened by an ugliness which compels us to undertake action which is so hostile that it is executed with all the brutality of extreme prejudice. So the question remains as to why the swarming of some creatures is so offensive when other examples of this behaviour are so appealing.

It couldn’t be because these creatures are inherently repulsive. On the contrary mice are lovable furry creatures which have broadened the biological perceptions of the countless children who have been lucky enough to adopt them as pets. In this context they are so familiar to us that they feature in popular entertainments such as Tom and Jerry, Mighty Mouse, Stuart Little and as that inimical cartoon character Itchy in The Simpsons. Not only do mice feature in such entertainments, but there are more than a few cartoons in which cockroaches play an important role. They usually play disreputable characters in such

cartoons, but even in real life these creatures could be living a noble existence worthy of our respect if only we were able to meet them as individuals. I happen to feel, for example, a very deep respect for spiders because I have come to realise during my investigation of the host model that spiders represent the presence of the Galaxy here on Earth. I find it awesome to correspond with a creature who is so majestic, and who is so distantly related, and I'm sure that with some effort I could develop an understanding of the role which cockroaches play in the cosmos.

It is with some affection that I remember how crickets occupied my attention as a child. I remember looking into their eyes and thinking that such creatures were individuals who possessed the sort of social attributes which any one of us has as a member of society. And who can forget the role which the beloved Grasshopper plays in our modern interpretation of Buddhist mythology. Yet in spite of the potential for developing a relationship based on understanding and affection, in large numbers all these creatures are the deadly enemies of humankind.

They are our enemies because they trespass in our lives; they enter our homes uninvited, ravage our foodstuffs and soil our precious belongings with no consideration for our feelings. It is an expression of their disrespect for us that we return to them in kind, and so we prosecute them with as much sympathy as we feel for criminals. Had they remained outside the perimeter of our lives we would probably have little care about their existence in the world, and so it is their ignorance of our boundaries that is the basis of our hostility towards them. But there is another factor which I think is worth considering. Had these creatures trespassed in much smaller numbers we may well have made an effort to ignore them. Certainly other creatures such as spiders share our personal space without offending us, and this is simply because there tends to be so few of them. Indeed the most distinguishing feature of a plague of locusts, or mice or cockroaches is their astonishing multitude. And as a

consequence we develop an attitude towards such creatures where the value placed on their individual lives is inversely proportional to their numbers; the more of them there are the cheaper is their existence to us, and the less compunction we feel about destroying them.

There will be no prize for guessing why I have told you about these creatures. We intrude so gravely on the lives of so many of the creatures whose environment we share, but I believe it is the careless disregard for our numbers that is most offensive to them. While it may be somewhat brutal to translate such sentiments into ones which the planetary host may feel, but to make my point perfectly clear to you, I suggest that if you want to behave like a plague on this planet then expect to be treated like vermin.

I'm sure you will want to argue, on the basis of the shape of Italy, that we have a very special relationship with the planetary host who has long foreseen our illustrious rise to global domination. But, by the same token, the shape of Italy warns us of the peril which this relationship entails. Of all the countless sins we are guilty of committing during our ascent against the integrity of this planet I believe that our disregard of the ecological context in which we reproduce is most serious. For all the pride which you may have in our remarkable achievements you would be foolish not to realise that we are no different from the countless other species who have struggled with exactly this problem. And you certainly can't deny the fate which usually befalls them. In the case of the cockroaches, and the mice, and the locusts, their numbers may increase at a phenomenal rate, but they just as surely disappear for years until the environment is again ready to receive them. We would do well to heed their warning, and contain our numbers. And don't tell me about your plan to escape to another planet, because I'll bet those locusts mobilise their hunger with this thought, mile after mile, as they devastate our farmland with their numbers.

I think I've dwelt enough on this misery. Let me tell you about a possible solution, one of many no doubt. But it is one which may not have occurred to you because it requires an explanation of the mystery of telepathy, a phenomenon which is so disturbing to most people that they are determined to associate it with the symptoms of mental illness. People pray to the object of their spiritual consolation, of course, but for the most part they don't expect their prayers to be either heard or answered. But with the identification of Planet Earth as a being who intends to share exactly this relationship with us, it would seem that we could communicate with the planetary host, and share with this being a knowledge which transcends our scale of existence, if only we had a way of understanding how. On the basis of some experience in this regard I believe that mental illness could provide us with an answer to this question. We could empathise with the planet and all of the creatures whose lives we so carelessly disturb. But more than this we could conceive of such a phenomenal scale of time that our reproductive motives would be without foundation. We could open our minds to such possibilities if only we felt confident about departing from our adherence to some conventional group norms.

Chapter 7

I am going to have to preface the following discussion with a couple of crucial personal disclosures. You may complain that the details of my personal life have no place in an objective discussion such as the one I am endeavouring to present to you here. But I believe that you won't be able to understand how I could so casually discuss such a mystical phenomenon as telepathy without knowing these two details from my personal experience. Firstly, let me say that I am in fact a schizophrenic. I was diagnosed with this condition many years ago, and in that time I have undergone a profound perceptual transformation the result of which is the rehabilitation which you may infer from my mental behaviour here. A residual artefact of my psychiatric experience, however, concerns my second disclosure in so far as I rationalise the 'voices' which I hear in terms of the development of telepathic powers. I think of myself as a telepath rather than as a schizophrenic, and I struggle with the social stigma which both telepaths and schizophrenics must endure.

You may be wondering what possible interest you could have in my discussion of the development of telepathic relations, but I've got a pretty good reason why you might take an interest in this subject. It concerns the possibility of developing a relationship with those outside the human family, not only with animals in the near distance from ourselves, but also with larger representations of being, such as the planets, stars and galaxies in the far distance from the domain of our everyday experiences. I don't want to say any more about this until later in this discussion. Suffice it to say for the time being that there are possibilities out there which you may not have had an opportunity to discover.

All this talk of relating to some of the vast cosmic beings who may exist out there will probably seem like the typically bizarre manifestation of a mental disease which is

renowned for its expression of this sort of grotesque perceptual deviance. But I think it illustrates a fundamental schism, not necessarily within the affected individual, but between the group and the individual. There a two very different ways of relating to the world, and I believe it is too easy for the group to trivialise the world view of a solitary individual who has difficulty validating the credentials of conventional thinking, and who is consoled by the power of personal perception. It probably never occurs to you to doubt the basis of your perception of the world, but I think you will find that the whole thing is premised on the convenience of reproductive relations. This contrasts sharply with the view of a solitary individual who espouses Death, not for the sake of solving the morbidity which Death seems to hold from the group's point of view, but for the sake of enjoying the grand vista of Eternity which its presence allows the solitary individual to behold.

Were it possible for me to confine myself to representing the wisdom of conventional thinking then I would refrain from allowing any personal commentary to enter into the discussion. But the truth is that I am relating an experience which is very poorly understood in human thinking. There is so little insight into the nature of schizophrenia in the community that I feel the inclusion of some personal anecdote is justified. Were it possible for me to discuss both schizophrenia and telepathy in the third person then I would do so. But in all my experience of these things over the course of more than twenty years I've met very few other schizophrenics, and I've never had the opportunity to rigorously investigate the nature of their psychoses. I have only my own memories to refer to, and so I hope that you will forgive me when I relapse into some very personal story telling. As far as I can tell these episodes are vital components of a rhetorical structure which I hope you will find compelling.

Chapter 8

Currently beliefs regarding the chain of events which lead to an individual being diagnosed with schizophrenia are based on family, twin, and adoption studies which suggest that both genetic and environmental factors are involved in the development of this condition. Other theories focus on the cognitive faculties of affected individuals but they are usually written from the point of view of investigators who are mentally normal, so that they tend to lack a truly accurate representational paradigm. None, for example, allow that telepathy is even within the realm of possibility, much less that it is such a common feature of the human perceptual experience given the incidence of schizophrenia in the general population. In this, and the following chapters, I will endeavour to present a cognitive theory which corrects this deficit. I may not be able to speak for all of those who suffer from the delirium of schizophrenia, but I can at least evaluate my own experience in a rhetorical context which is reasonably formal.

I will refrain from discussing some theoretical approaches because they are less useful to me. Others I will discuss elsewhere, such as the view that somehow relations within the family are responsible, or that substance abuse has led to a lasting biochemical disturbance within the brain. While this may be so in my case, I believe that a comparison between the cognitive approach, and the conflict between genetic and environmental explanations, will incorporate the essential features of how I describe my experience. They may be two aspects of the same thing, but they differ in several ways, not least in terms of their methodology, so I will begin by briefly comparing these theoretical approaches.

The family, twin, and adoption studies involve a statistical analysis of survey data collected after an affected individual has been identified. These surveys investigate the

incidence of disease in relatives of the individual in question, and show that first degree relatives are more likely to be affected than more distant relatives, or those selected from the population at random. While the family studies indicate the heritability of schizophrenia, the twin and adoption studies allow investigators to distinguish between genetic and environmental factors. Identical twins provide a means of evaluating the magnitude of these factors by comparing twins who were adopted into different families, with those who grew up in the same family. Either both were affected, or only one was. If only one identical twin was affected then the family environments in which they each grew up must have been involved in the production of this outcome, either to encourage one of the pair to behave normally, or to persuade the other to resort to devious thinking. As it happens, the literature suggests that the rates are very similar. About half the twins who grew up in different families were both affected, indicating the involvement of a genetic factor. In the other half of the sample only one presented with the condition which indicates that environmental factors were involved, and this division was also observed in the case of identical twins who grew up in the same family. The theoretical implications of these studies suggest that a combination of both environmental and genetic factors is involved in the production of this outcome.

In the past there was some conflict between those who believed that genes were responsible for the development of this condition, and those who believed that adapting to a stressful environment was. But today, because these studies implicate both factors, most people accept that an interaction between a person's genes and his environment, best accounts for the coordination of his deviant behaviour. Yet, in spite of such positive findings, the explanation for schizophrenia remains somewhat lacking because similar surveys of healthy people would undoubtedly implicate these factors in the aetiology of say business success, or musical talent. The question remains as to why some become schizophrenic and others not, when a genetic predisposition is present in both cases as the twin studies suggest. My

personal view is that schizophrenia represents an alternative means of negotiating the relationship between self and other, so implicating an interaction between the affected individual's genetic endowment, and his environment, is not an issue I'm likely to object to. I am, however, more inclined to believe that an affected individual has chosen this path; that he or she is not a helpless victim as some would have us believe. It is a mistake, in my view, to doubt that the affected individual has been a willing participant in the development of this condition.

While the cognitive approach is better equipped to deal with the context in which choices are made in life, it would nevertheless be a mistake to discard the correspondence between the genetic and environmental explanations. The twin studies represent solid facts which add substantially to the empirical framework of physical science, and it would seem from our discussion of the regression of abstractions, that a synthesis of all three positions is possible anyway. If matter is organised according to organic themes which recur throughout the scales of existence, then both the molecular scale of genes and the external environment in which we socialise, are implicated in a dialogue which transcends the scale of our existence, and in which we are all unavoidably involved. The synthesis of differing views only requires the addition of a creative and discriminating ego who may renegotiate the relationship between self and other, and remodel the presentation of ideal by performing all sorts of emblematic behaviours.

If you think that I'm harping on with all this talk about the regression of abstractions, then you've probably underestimated the schizophrenic fascination with the relativity of spatial and temporal perceptions. Space and time are senses which are more subtle than you give them credit for. While you may confidently feel that space and time have some kind of immutability about them, you actually consent to reinforce this view with the people you encounter in the course of your daily life. You ignore the view that space and time

are senses which may be of an entirely personal nature. It never occurs to you that you may look at them in a different way because of your compulsion to conform with the wisdom of conventional thinking. But if you are naturally inclined towards a fundamental expression of dissent, then a personally liberating apprehension of these senses may establish the basis for an interesting alternative.

If I may relate some anecdotal evidence let me say that once upon a time, very early in my childhood, I had a perfectly transcendental view of time and space, and that later these memories inspired much of my deviant behaviour. In fact, it was a comparison between these memories and my situation as a 22 year old that first motivated me to follow the path which eventually led to my diagnosis with schizophrenia. I broke up with a girl, had a good long look at the misery in the world, and felt I'd like to try something completely different. I had been reading Castaneda's 'Journey to Ixtlan', which offered the hope of learning how to reacquire the dreaming skills I remember possessing as a very young child. Apart from attempting to console myself with the happiness I remembered from this time, I thought that dreaming skills would be real handy one day, when it came to my final confrontation with Death.

I couldn't tell you whether my early childhood sense of time and space represented a genetic abnormality, or whether my mother was somehow able to draw my attention to the timeless nature of my perception. I also couldn't tell you the extent to which these factors were involved in my ability to remember the experience as an adult. I'm inclined to believe that each and every one of us is able to recall such experiences, if only we were exposed to the appropriate perceptual stimuli. In fact, I wouldn't be surprised if you told me that you were beginning to remember fragments of your own early childhood experience, as you read these pages, because for me it was just a matter of possessing the logical key which unlocked the secreted memories. I could go on about the delightful symmetry between birth

and death, and how the sort of mental imagery with which we represent them is at least similar, if otherwise incongruous in some respects. But that would be like skipping ahead of the story. I will return to this discussion shortly, but for now let me continue with my discussion of psychiatric theories.

While the debate between genetic and environmental explanations is all very interesting, it only obliquely addresses the mental behaviour of those who suffer from what is, after all, a mental illness. The two theoretical positions are firstly, that environmental stresses figure largely in an affected individual's thinking, and secondly, that genetically acquired resources are used in the course of problem solving. But schizophrenia is a little more complicated than such simple explanations imply. As it happens the cognitive approach has little to say about the cause of schizophrenia, dealing mostly with the therapeutic rehabilitation of affected individuals. But it does at least enable a discussion of the sort of thinking which is characteristic of this disease, and research has focused on such mental phenomena as perception, problem solving, and the representation of knowledge by individuals who present with this condition.

According to therapists of this sort schizophrenics suffer from a distorted perception of the world and themselves, and are characterised by having a very disorganised manner of thinking. If you detect a note of sarcasm in this suggestion then don't laugh too soon, because to tell you the truth I was a raving lunatic once upon a time. You couldn't make sense of most of what I had to say, and I'm sure you won't have any difficulty believing it. So, much as I would like to persuade you to adopt my point of view, I won't deny that what they say about schizophrenia represents a fair assessment of the matter. You venture into a labyrinth when you change your relationship with time and space. You could be anywhere if you just stopped and thought about it for a moment, and as for those who do stop everything for a moment, well, no wonder they get a little confused. Schizophrenia consists of a very

personal representation of an affected individual's place in this world. There is rarely someone physically present to guide him or her through the labyrinth of perceptual possibilities, and solitude is not only a personal preference for many of these individuals but a matter of fundamental practicality when it comes to the cultivation of deviant perceptions.

And in case you're thinking that a psychiatrist could help out in this regard it is worth noting just whose interests they serve. There's no denying that schizophrenia is a very debilitating illness, and that the community is justified in having grave concerns for the welfare of affected individuals. But by the same token it is also true that the community has little interest in understanding what it is that motivates a schizophrenic to assume such a deviant point of view. The schizophrenic point of view is invalid as far as the community is concerned, and psychiatric theory tends to reflect this attitude. Psychiatric theory therefore represents a fairly shallow endeavour to make affected individuals more manageable in society, without giving any credence to the view of those who are characteristically in conflict with the group whose values they have chosen to renounce. According to this view psychiatric theory may be seen to serve the interests of the group rather than those of the affected individuals. Psychiatrists will be very careful not to make concessions to the views of their schizophrenic patients for fear of lending them validity, and for fear of compromising the moral authority on which they will ultimately rely.

You may have assumed while reading these pages that telling you about my experience has been a simple matter, that my story unfolds easily, and that one thing leads to another until eventually I arrive at my conclusion. Well, this may be so, but only because writing is a medium in which I am always able to control my relationship with you. It is another matter entirely to speak of these things in the context of casual conversation with people who don't necessarily know me very well. I'm sure you will appreciate the difficulty I would have trying to explain these things to a psychiatrist in his consulting rooms, on the

basis of assumptions about our relationship which give me very little credibility to begin with. I learned early in my psychiatric career not to mention the things I feel confident about sharing with you here.

It may also have occurred to you that there's nothing wrong with my thinking. I may have some strange ideas, but the psychotic thinking characteristic of schizophrenia has been filed off the mental track I'm inclined to follow through continuous and habitual use. Yet in spite of my apparent rehabilitation, psychiatrists, along with most of humanity no doubt, really don't want to know about the sometimes disturbing ideas I'm presenting to you here. As far as they are concerned invalidity is the natural place for both myself and the fundamentally grotesque vision of existence I'm peddling. You won't need to tax your imagination to conceive of how much it threatens them, but add to this the possibly telepathic nature of my experience, and I for one won't be surprised if some of them go to a lot of trouble to discredit me.

In spite of the obvious coherence of what I have to say here, a lot of people will want to refute the existence of telepathic beings because they threaten to transform human relations in ways which are likely to be unpredictable. Basically, humans hate the idea of someone being able to 'read their mind' because it compromises their privacy, it means that they have to shield their thoughts in some way, and I know how difficult this can be from some excruciating personal experience. When I first began to realise the sensitivity of my perception I remember trying to shield it from contact with other people's thoughts, but of course there are no muscles in the brain so this endeavour proved to be ultimately futile. I've also seen others do likewise, I believe that few people are in possession of a reliable 'poker face', and I've seen on several occasions how mentally vulnerable some people are. There can be no doubt about the nature of their inner conflict, because the body language is unmistakable.

So, how do I go about proving to you that we are all fundamentally telepathic? Let me start by throwing you in at the deep end with the discussion of a little physics. I believe that a rudimentary grasp of James Clerk Maxwell's treatment of electricity and magnetism, will set the scene nicely. Physics provides us with a very powerful tool which may be used to explain our experience of the world, and our understanding of the universe leaped forward when Maxwell made note of four simple equations during the nineteenth century.

Maxwell's equations summarise in four elegantly simple mathematical statements an aspect of nature so pervasive as to trumpet with significance from the tiniest of atoms to the vastness of planets, stars and galaxies. They summarise the relationship between electricity and magnetism, and since their publication more than a century ago, have lead to the flourishing of modern science and technology.

The first two equations establish the geometry of electricity and magnetism, stating simply that, while an electric charge may exist in isolation, magnetic poles occur only in pairs, surrounded by the flowering of their characteristic field lines. You will no doubt be aware that atoms are composed of electric charges. Positively charged protons are located close to the centre of atoms, and negatively charged electrons orbit the protons at a distance of about a tenth of a nanometre. This has a bearing on our discussion because the next two equations make the more interesting claims that while a rotating electric field will induce magnetism, a changing magnetic field will in turn produce electricity. An interesting consequence of this is the ability to differentiate a wave equation. In the simple case of an atom of hydrogen, for example, as the electron moves through its orbit it is located on opposite sides of the atom alternately, so that the fields oscillate in space, and radiant energy is produced. Maxwell's equations thus lead directly to our modern view of electromagnetic radiation.

If you picture the atom so that its orbital plane is parallel to your line of sight, then the electron traces a line back and forth from one side of the proton to the other. This description of the behaviour of an electron is fairly crude, but even so, a hydrogen atom behaves like an electric dipole antenna, positive at one end and negative at the other, with a reversal of polarity half way through each cycle of oscillation. Atoms and groups of atoms emit radiation quite naturally, but what about the production of radiation on a more familiar scale? If you held a small length of fence wire between your thumb and forefinger, and rotated a bar magnet, end over end, in the vicinity of the stub of wire, then the wire would emit a signal in time with the rotation of the magnet. The rotation of the magnet propels electrons from one end of the wire to the other, over and over, and the oscillating electric field produces an electromagnetic signal. In the case of the antenna attached to your citizen band radio, or the tower which transmits your favourite radio station, the propulsion of electrons is produced electronically, but the result is the same, radio waves are transmitted in every direction.

When the electric field of the antenna oscillates in this way it is not likely to be the only oscillation the field is experiencing. In fact, the field is oscillating at countless different wavelengths and frequencies at the same time because the antenna resonates according to signals from numerous other sources. In the case of your reception of television, for example, the antenna is receiving all those channels simultaneously. When you tune in to a particular channel the tuner simply samples a narrow band within the range of resonance, and ignores resonance from the rest of the electromagnetic spectrum. Radiation therefore behaves in a way which is not unlike the sort of waves you have seen on the surface of water.

Electrons flow through metals much like ripples on a pond so that, in the case of your CB radio, even when your microphone button is not pressed and no signal is being sent, the antenna resonates with the electromagnetic flux in its vicinity. It 'reflects' this noise,

and thus becomes a source of radiation itself. When you press the button to send a message the antenna doesn't suddenly burst with radiant energy, because it radiates continuously anyway. Instead the pattern of oscillation which characterises your voice is made to conform with the requirements of the signal processor, and a new ripple is cast on the surface of the pond.

Antennas of this sort are usually made of metal because metals are good conductors of electricity, but this doesn't mean that other materials, such as water, are not particularly good at conducting electricity, and couldn't be used as an alternative. The problem with water is the one of getting it to stand up straight like a metal antenna, rather than the one of getting it to conduct an oscillating electric field. As it happens animal bodies are composed of nearly 60 percent water, so they are slightly less receptive than metals when it comes to the resonance of electromagnetic energy. But this is not to say that they don't absorb and emit it at various wavelengths and frequencies. It may surprise you to learn that there is quite a lot of electricity in animal bodies. Both muscle and nerve fibres are thought of as electrical tissues, and when mineral salts are dissolved in the blood they ionize to produce charged particles called electrolytes. There is also quite a lot of iron in the blood, about 4 grams in normal adults, which is enough to make a small bar magnet about a half a cubic centimetre by volume. So, much as you would like to deny the possibility, our bodies are steeped in electromagnetic energy and telepathic relations between animals are very likely, because wherever there is an interaction between electricity and magnetism, radiation of this sort is both transmitted and received. The question really is one of how people can convince themselves that telepathy is not possible, when at odd times throughout their lives it is not unusual for them to experience a profound mental intimacy with people who may be complete strangers.

As for the question of how people can deny the existence of this faculty, let me say that a long time ago, before language became such a formal implement of social relations, I believe that humans were as telepathic as anyone. At this time human relations were so well coordinated that they were able to dominate the grassy savannah, so they must have had a means of relating the complex differentiation of roles to each other. In the absence of a formal language they must have been able to relate to each other in terms which we would regard as telepathic. But, as their relations became even more complex, their representation required greater precision, and so the formality of spoken words began to replace the mental representations which they were previously accustomed to. Before long humans were so dependent on the convenience of spoken language that their previous means of communication was forgotten, and with the rise of the culture of individualism telepathy became such a threat to their privacy that it was discredited entirely. Today this faculty is so threatening to many human beings, and so long forgotten by them, that it is now regarded, not as a natural attribute of all living things, but as the definitive symptom of a serious mental disease.

I won't deny that I represent a fairly provocative point of view with regard to this matter, and I won't be surprised if a lot of you have difficulty accepting it. Fortunately there exists a fairly objective proof of its validity which has been known to investigators for many years, although not as a proof of telepathy. When I read about this experiment the first thing I thought of was its bearing on the case for telepathic relations between animals, but in your case you will probably require just a little credence in order to arrive at my conclusion. I refer to inferences which can be drawn from the surprisingly successful attempts some people have had teaching chimpanzees and dolphins the sign language which was developed to help the deaf communicate with others in possession of this language.

As it happens it was a chimpanzee named Washoe who was the first animal ever to learn a human language. She was born in Africa and brought to America as an infant in 1965, and was taught to sign in order to communicate her needs to her adopted human family. By the age of four she had learned more than 130 signs, and she continued to learn signs well into her adulthood. Not only could she repeat what she had been taught, but she could also make up new words by combining signs, such as the water - bird combination she signed when she first encountered a swan. Her capacity for creative abstraction is thus not a matter you can seriously dispute. In Washoe's case, however, she was taught to sign by instructors who remained silent while signing, so she never learned to associate spoken words with the signs which she was learning. But in a similar experiment involving a female gorilla named Koko, the English words were spoken while the signs were being demonstrated, which resulted in Koko being able to recognise some 2000 English words during the course of this experiment. This suggests that primates are able to mentally represent their environment, and their relationship to it, in some detail, and with this complexity it is reasonable to assume that they internally discuss such things as tirelessly as we do. It is also worth noting in Washoe's case that communicating with others in her family group was so natural to her, that she spontaneously taught her adopted son, Loulis, the signs which had allowed her to communicate so effectively with humans.

My point is that if these primates are able to correspond so elaborately with humans who are only distantly related to them, then correspondence with members of their own kind must be even more elaborate, because their motivation is so much more acute. Now, I'm not suggesting that their representation of the world is particularly technical by our standards, but I do believe that they possess a comprehensive world view, which is much more elaborate than their wild caterwauling suggests. You could ask yourself how intricate your beliefs would be if you had upwards of a couple of thousand categories to play with. I'm

sure you will agree that because primates are fundamentally social beings such an elaborate representation of themselves would be shared within the group. So, in the absence of a recognisable language, I am able to implicate the conduct of some kind of telepathic discussion between them. I believe that their description of the world incorporates a great deal of subtlety which is nowhere evident in their outward social behaviour, but which is perfectly accommodated by the sort of mental representation that a telepathic faculty would allow.

While you may have doubts about my ability to win you over to this view, you can't deny that the inference is quite clear. Animals can't exist without harbouring intentions towards the others they encounter, and it is in their best interests to be able to read the intentions of others as quickly as can be. But for those of you who remain undecided there is evidence from an experiment involving dolphins which allows me to draw conclusions on the basis of an inference which is even stronger. During the 1980s Louis Herman studied the ability of dolphins to learn and respond to a vocabulary of hand signals which represented features of their environment such as the Frisbee, ball, and basket they played with, and the actions they performed such as jumping and diving. These dolphins were so adept at interpreting abstractions that they responded to hand signals displayed on a television screen, but it was the coordination of behaviour between dolphins acting in tandem that really mystified this observer.

These dolphins were trained to respond to hand signals by rewarding them when they performed the correct behaviour, and in this case the two behaviours of interest to Herman were creative spontaneity, and the coordinated behaviour of two dolphins acting in tandem. The hand signals were thus 'tandem create', and when the two dolphins trained to respond in this way saw these signals they would confer with each other, but without so much as a peep they would agree on some spontaneous behaviour, and perform it. Herman actually

said that this behaviour was a complete mystery to him, but he was, of course, in no position to claim that the dolphins were in possession of telepathic powers. I only get away with such a preposterous suggestion myself because I am afflicted with schizophrenia, and have a reputation for hearing voices, so that my claim to have telepathic powers is hardly surprising. Anyone else making this claim is subject to ridicule because it seems that so few people have this ability, and most people are actually horrified by the prospect anyway.

I am going to give you a rest now because I'll bet you're feeling exhausted by this discussion. I haven't finished with this subject yet, but I know how much of a blow it is for some of you to hear me argue in this way. Give yourself a minute to gather up your thoughts, and when you feel like going on with this discussion I will relate some personal experience I acquired while herding cows for a farmer several years ago.

Chapter 9

I actually grew up in Sydney, but when I first left home at the age of 19 I lived on a farm several hundred kilometres to the southwest. I was a graphics student enrolled in a regional college, and the farm was the only accommodation available to me at the time. This was several years before I was diagnosed with schizophrenia, and a long time before the incident with the cows I wanted to tell you about, but I wanted to let you know that I developed an affinity for the country quite early in my life.

It was many years later while I was living in a small country town in the north of New South Wales that I answered an advertisement in the local paper advising of a small farm cottage available for rent, about 20 kilometres out of town. The farmer was, in fact, a share cropper who grew lucerne and sorghum among other things, and kept about fifty cows whose numbers fluctuated as calves were born, and sold at the local sale yards. I wasn't actually employed by the farmer, I was his tenant. My pension provided me with sufficient financial support to pay rent and feed myself, and I was happy to help out in any way I could. It turned out that my effort was best spent herding cows up and down the roads in the vicinity of the farm, where the grazing was plentiful, and the cows could enjoy a taste of freedom outside the gates and fences. The farmer was growing crops in the paddocks, and didn't want the cows disturbing them with their voracious appetite, and careless footsteps. I would take the cows out in the morning, check on them throughout the day, and bring them home in the evening, and with such small numbers I got to know them pretty well. A lot of them had been given names by the farmer's family, such as 'Mad Limo' who was the head cow, and 'Hoppy' whose broken leg had never healed properly, and who consequently had a very awkward limp.

I had been living on the farm only a matter of days before I learned my first words in the 'language' which the cows evidently use to relate to each other. I was dozing half asleep before I got out of bed one morning when I heard one of the calves bleating not far from the cottage I was in. I heard the calf bleat a plaintive question, “Where are you?” It was a question I was to hear quite often during the months in which I was stationed there, because as calves were separated from their mothers, they attempted to locate them with this plea.

I should explain at this point that in all my experience as a schizophrenic I heard 'voices' only on very rare occasions. You hear a voice when someone speaks to you, of course, but on these rare occasions I heard a voice as you would, but without a speaker being physically present to express it. This is supposed to be the characteristic symptom of schizophrenia, but I don't know how many affected individuals experience it because in my case it happened only rarely. I must say, however, that I 'hear' thoughts on a daily basis which I am able to distinguish from my own. So when I say that I heard the calf's question it was as if a translation of its bleating occurred among the babble of my thinking. I knew that the thought was not one of my own because, by this time, I had been a schizophrenic for some 14 years, and I was sufficiently experienced to tell the difference between my thoughts, and the thoughts of another. This is an important distinction which I will discuss in detail shortly, but for now let me continue with my cow story.

Sometime later, after I gained experience conversing with the cows, I used this question to locate the mother of a calf who had been caught on the wrong side of an electrified fence. The fence consisted of a single length of wire hung about three feet above the ground, and I tried to persuade the calf to go under it while I propped it up with a length of wood, but the calf wasn't going to cooperate. So, I attempted to imitate the question I had heard so often, yelling out, “Where are you?” I didn't know who this little one's mother was, but it occurred to me that she would be more persuasive, and fortunately the gambit worked.

But when the calf's mother waddled over to help us I could see that she was laughing, she evidently thought that I sounded just like a baby crying, which was not particularly surprising since that had been my intention. I had a good laugh too, and I will never forget the incident because, with a sense of belonging to the group, it really made my day.

I lived on the farm for no more than nine months, but in that time I learned that the cows have a rich and elaborate description of both themselves, and the world in which they live. To illustrate my point with a couple of examples, I had a small farm bike which they called a 'fire bike', and they called the diesel fuel which was stored at the top of a small tower 'fire water'. Furthermore, I was bringing the herd home one afternoon when the bull, who was allowed to graze with the cows, bellowed “Fire!” When I turned to look I could barely see a plume of smoke across the flat plains maybe 20 kilometres away, but it meant so much to the herd that they all stopped to have a look at it. Not surprisingly a lot of our conversations were about the fences, and I had the dickens of a time avoiding the subject of the ultimate fate of cows, a subject about which I will feel shame and remorse for ever. When I left them I promised that I would do everything in my power to represent their plight to humanity, and do what I could to change it. I won't forget how warmly I felt towards them, and the sadness I felt when the young ones were taken off to slaughter. I made a mistake typical of a city boy living on a farm by getting emotionally involved with the livestock.

Now, I've told you this story not so much in order to reinforce the point I was making about being able to infer that primates and dolphins are necessarily telepathic. I've actually told you about the cows for another reason, which is to explain to you how I arrived at a crucial turning point in my experience with schizophrenia. Prior to this episode with the cows, and throughout the previous 14 years not counting 3 years of unremitting delirium before my diagnosis, I had to maintain an element of doubt about the nature of my experience. While the possibility weighed heavily on my mind at certain times throughout

this interval, it wasn't until I was able to converse with the cows that I felt confident about concluding that animals are fundamentally telepathic. I felt, much as you do, that telepathy was such an unlikely explanation when disease so readily accounts for all the observable facts.

While you may have reservations about some of the things I have told you, you are not in a good position to doubt that I am at least a reasonably cautious thinker. Far from flattering myself with this suggestion I want to point out to you how difficult it is to obtain a reliable proof of this phenomenon. For example, there was an episode with a dog very early in my career as a schizophrenic which promised to achieve this end, but which only served to add to my confusion. I was minding my sister's house and her dog while she and her husband were away for several months. Her husband was in the business of acquiring surgical experience in a regional hospital, and I had no particular ties so I was free to help out in this regard. The only problem was that, unknown to my sister and her husband, I had begun my descent into madness, I had conceived of the infinite regression of abstractions, and had begun to relish its exquisitely psychotic perception. If my thoughts weren't out among the stars and galaxies, or rehearsing my memory of all time and space, then they were suitably employed investigating the worlds I found while lost in the labyrinth within.

I was driving a cab two or three nights a week in and out of Sydney's city centre so my hours were unpredictable at best, and I would often spend all night at home brooding over my new found perception, which the dog evidently found infuriating. It was during one of these all night stints that the dog provided me with an opportunity to prove the case for telepathy when he covered his ears as dogs do sometimes, and said in audible English, “When are you going to stop?” Now, I sat there and looked at him wondering about how bizarre my perception was becoming, and wishing that it would never end, but realizing that I really had no control over something that was quickly becoming very scary. His speech

was slurred, but it was quite distinct which meant firstly, that he was receptive to my altered state of mind, and secondly, that he had learned a lot of English from simply listening to people speak.

This would have been a valid and compelling proof of the telepathic potential of both animals and humans, but unfortunately my perception throughout this period of my life was so bizarre that this instance was lost among the endless mental clutter. My point is that it was not until I was able to socialize with a number of beings in this way who together reinforced my belief that it was possible, contrary to my otherwise sceptical inclination. If any of you suspect that schizophrenia masks an otherwise telepathic nature, but are unable to prove the veracity of your suspicion, then I recommend that you live among a group for whom telepathy is not so much a mystery but an integral part of their culture. I personally incline towards developing this kind of relationship with a herd of cows, but there is no reason why you shouldn't associate with sheep, or horses, or pigs, if the opportunity ever presented itself. You may manage to prove the case by associating with your pet dog in this way, but because the two of you meet in relative isolation, I expect that any doubts remaining in your mind would erode the strength of your conviction.

A lot of troublesome experience has shown me that you'll get nowhere attempting to prove the truth of this faculty by entering into this sort of relationship with the people you encounter from day to day. Humans are so hostile towards what is, in their view, an intractable invasion of their privacy that they will lie to you if they feel threatened by your sensitivity to what is on their mind. Furthermore, so few people have an interest in developing a telepathic faculty that you would be no more able to bolster your convictions than if you attempted to relate to your pet dog in this way. But this doesn't mean that you can't relate to people telepathically provided you are careful to be discreet about it. The

airwaves are free for you to sample to your heart's content, and no-one can stop you from conducting your own private investigation of them.

If you feel inclined to replicate this curious experience then it may be helpful to know that my entire psychiatric odyssey has been the inevitable consequence of my personal inclination to assume a solitary existence. While this obviously deviant social orientation may contrast with the reproductive behaviour of a species whose numbers are destroying the natural environment, it may well represent an adaptive alternative. There may be some odd perceptual consequences of this sort of orientation, but at least the solitary individual can limit his or her impact on the environment.

As for all those 'normal' people who think I'm not addressing them with this discussion, I can think of a couple of situations in which you do in fact entertain telepathic relations with other people. You will no doubt recall from your experience of falling in love that there comes a time in the development of your relationship when you realize that you've fallen in love with your partner, and that you can't stop thinking about him or her. Without wishing to boast about my conquests, I must say that I've fallen in love with a few girls in my fifty years. So many, in fact, that I've become fairly circumspect about this stage of the relationship, and so I can tell you from experience that it is very difficult to relinquish the mental obsession from which you suffer at this stage. To tell you the truth, I've actually sworn not to fall in love again for the very reason that this obsession is excruciating for a telepath. You can forget about getting any sleep for the few weeks it takes to adapt to the new presence in your mind. I will, however, contradict myself by saying that I've not written an oath in blood or anything, so I would consider developing a relationship again. But my point is nevertheless a valid one, that the intimacy of your relationship with your partner going forward from this time is much more profound than the otherwise sexual intimacy which motivates it.

Now, I've never been married. I'm sure you can imagine how much a girl would relish telling her family that her beloved husband to be has been a psychiatric invalid for most of his adult life. But I have lived with a girl in a de facto relationship, and I can tell you that I lost count of how many times I was thinking of some feature of our lives, when she turned to me and began a discussion of the very subject I was thinking about. It was freaky to say the least, but I loved the girl and found that it was gratifying to be reassured of the depth of our feelings for each other. But, before you go complaining that my experience is hardly surprising since I am supposed to be a telepath, let me say that the reciprocal case was just as common. My partner would say “Hey, I was just thinking about that” when I opened some topic for discussion. And besides, I'm inclined to believe that it is a fairly common phenomenon between couples, and furthermore I'm sure that you will have to agree with me in this regard.

It may have occurred to you while reading this discussion that telepathy has been disproved on numerous occasions by tests such as the one involving a tester who holds up cards with symbols on them, and the individual in question has to guess what the symbols are. Let me just say that the experiment has nothing to do with the cards. The test subject is not trying to 'see' the cards, but rather to see what is on the tester's mind, so the subject is going to get nowhere if it happens that the tester does not have an open mind. Ideally this experiment should be conducted by people who already have a telepathic rapport with each other, such as a couple who live together, or even a couple of reasonably functional schizophrenics who profess to have such powers. This never happens, of course, because the point of the experiment is to disprove telepathy, so both tester and subject have been selected with this particular goal in mind.

Since humans rely so much on verbal communication their telepathic faculties are redundant in this context in any case. And, to tell you the truth, in all my experience of

being a 'telepath' there were relatively few occasions when, as I was conversing with someone, I could tell that they were thinking something contrary to the substance of what they had to say. When this sort of thing happened I got the impression that they were feeling something of a personal nature, or I had caught them in a lie, and I could tell from their body language that they felt mentally exposed in this way. We might have been conversing about nothing in particular, and out of the blue something completely unrelated, something of a sexual nature for example, popped into mind, and I could tell that a reciprocal thought had occurred to him or her as well. So, if you happen to believe that you are a telepath, then I advise you not to get carried away with the appearance of having telepathic powers. It's easy to be mistaken by appearances, and the situations in which you can infer what someone is thinking are few, because people have so much distaste for telepathic relations that they refuse to allow themselves to be exposed in this way. They will deflect the course of their thinking if they suspect that something of this sort is about to develop in the conversation, and I'm sure you've had the opportunity to observe this in conversations of your own.

Clearly, there is little opportunity for people to develop a telepathic rapport with others in their face to face communication anyway, because people prefer to relate to each other verbally, and so telepathy remains an unsatisfying and virtually irrelevant alternative. But it is another matter entirely when you are alone somewhere, and you undertake to investigate your memory of the social interactions which have a special interest to you. As I'm sure you've observed for yourself, it is a free for all when you are alone with your thoughts and, immersed in a private contemplation of the other people in your life, you find yourself in a place where you may pursue your mental investigation without fear of censure. While people may be mentally defensive when you meet them in person, they are so open to entertaining this sort of correspondence with you in private, that you are free to relate to them in any way you please.

Now, I know that some of you will want to contradict my argument by suggesting that whatever is going on in a person's mind is just their imagination, it's not real and shouldn't be credited with being a legitimate representation of another person's views. Well, up to a point I must agree with you, the sort of information obtained in this way is doubtful at best, and you should be very careful undertaking action on the basis of conclusions which this information may tempt you to draw. But there is a technique you can practice which will enable you to distinguish between your 'imagination' and the other person's thoughts and feelings; in particular with regard to whatever feelings they may have about you.

You will no doubt already be well aware that you mentally talk to yourself all the time. You conduct an internal dialogue about your relationship with the world continuously, and you will also be aware that this dialogue is, in fact, very difficult to stop. Many years ago, when I first started down the road to psychosis, I remember that arresting the internal dialogue was one of the techniques I learned from Don Juan who was an extraordinary individual assisting Castaneda with his anthropological studies in Mexico. This venerable gentleman explained to Castaneda a number of very powerful techniques which were designed to reorient a person's outlook on life, and I believe that stopping the internal dialogue was one of the more profound ones. When I first began to practice this technique myself, I remember that I could stop mentally talking to myself for maybe 10 seconds or so, which is not a world record by any means, but it is a feat which is very difficult to achieve. Many years later, after a lot of practice, I could keep it up for several days at a time. And while this may be a rather empty pursuit in itself, it does allow you to conduct an investigation of what else is going on in your mind, in particular with regard to distinguishing your thoughts from the thoughts of the other people in your life.

It is worth noting that those people who are important to you, can't avoid thinking about you to some extent, they unavoidably entertain some feelings for you so that there is a reliable symmetry in the relationship which is worthy of contemplation. You may be surprised by how much you can infer about their feelings for you on the basis of the logical structure of your relationship, and then there is a wealth of body language you can read provided that you are careful to preserve the rigors of logical inference. And, contrary to conventional thinking, the remaining piece in the puzzle is based on what you can read 'telepathically', provided that you are able to distinguish your thoughts from the thoughts of others, and you are careful not to draw erroneous conclusions.

The other thing to keep in mind while you are brooding about your acquaintances in that special place where you do your meditation is that you and your acquaintances are not likely to be thinking about each other simultaneously. You may feel confident about relating to these people telepathically, but it is worth noting that they will not necessarily be conscious of your mental conversation at the time that you are having it. While it is possible to have a telepathic conversation where both parties are simultaneously aware of each other, such a conversation is likely to be rare because of the divergence of people's interests, and difficult to verify in any case. You could, of course, use the telephone to make enquiries with regard to what the other person was thinking about at the time that you were having this conversation. Or, if you happened to be living with them, then you could ask them even more directly, but this sort of stratagem is both dangerous and unseemly, and may ultimately result in the loss of their confidence in you. You'll find that it pays to be discreet in this business, and besides the alternative is much more interesting anyway.

The alternative is to dismiss the view that telepathic conversations need to be synchronous in order to qualify as such, and then to adopt a theoretical framework which allows parties to relate to each other asynchronously. If you will bear with me for a moment

while I point out the physical basis on which I believe telepathic relations may be entertained, I will return to the discussion of how your development of this faculty may affect your relationships shortly.

To begin, let me remind you that human bodies consist of electric and magnetic fields which result from an interaction between large numbers of charged particles, and that bodies ranging from minuscule atoms to titanic galaxies are no less composed of such fields. In fact, the nominal 'energy field' is without doubt the most unifying abstraction we have yet conceived of, and it is one whose generality encompasses the representation of existence from one end of the dimensional scale to the other. In the case of atoms, stars, and galaxies the magnetic field coincides with the axis of rotation, and the electric field is perpendicular to it. But in the case of human bodies the orientation of these fields is not quite so clear, and so we are left with the task of interpreting the field-like nature of the various axes of symmetry.

The most notable axis of symmetry organising the human body is parallel with the spine, and in this regard we may expect at least a degree of symmetrical correspondence between organs located on either side of the plane which divides this axis. Thus the symmetrical correspondence between the centre of the brain and the rectum, which together represent the poles of this field, is curious to say the least, yet their polar identity is unmistakable. A little less clear are the poles of the fields which are perpendicular to the sagittal and dorsal planes, yet in spite of this uncertainty the three axes together define where the body's constituent particles are located in three dimensional space.

The origin of a polar coordinate system would thus be suitably located not far from the heart. And it is by no means trivial to locate the centre of consciousness there, rather than at the centre of the brain, because the entire body consists of knowledge, of which the

brain is merely a representative summary. A person's brain would be overwhelmed by the sum of knowledge residing in all parts of the body so people are necessarily selective about what they mentally attend to. But this doesn't mean that those other centres of knowledge will refrain from processing information, and interacting with other sources of knowledge, just because they are not presently at the centre of the person's attention. The brain may keep a person's favourite memories fresh in his or her mind, but the great bulk of knowledge residing in the body remains forgotten until the day when circumstances deem that this knowledge is required.

The body is thus a radiant field whose harmonics encode memories from a person's prior experience, but it is also a receptive electric field which can resonate in sympathy with the radiance of other fields. I have suggested that when you relate to someone telepathically you do not need to be at the centre of their attention when you address them. It doesn't mean that the knowledge you obtain by observing someone in this way is necessarily invalid. As a receptive electric field they can't help resonating in sympathy with you in spite of whether they go to the trouble of observing this or not. So, if you were to mentally ask them questions, then the answers you received would be worth giving serious consideration to. You'll find that you're never going to be able to rely on the reception of long strings of text, even if you're good at stopping the internal dialogue, because text is such a complicated structure that it is difficult not to corrupt the signal with your thinking. But a careful study of a person's body language, and very short strings of text, will provide you with a reliable indication of their mood and intentions.

In my experience with schizophrenia I've tried to look at my situation from a lot of different points of view. I would like to have asked certain individuals some interesting questions, but because of my limited means I could only consult them mentally. It was not a particularly synchronised conversation that I had with these people, and yet our conversations

have been fairly comprehensive. My point is that when you relate to someone telepathically you are relating to their 'assemblage points', by which I mean that you relate to others in terms of the topics which you share a common interest in. There would be an assemblage point for each of the categories you share with those others in your life, and a network of points where these categories overlap, so that together they embody an intricate ideological complexity. You could mentally ask your acquaintances how they felt about an aspect of your relationship with them. You may find that you can mentally confront them with the sort of questions which will elicit a clear yes or no answer, which may provide you with a reliable indication of their feelings. In posing such questions you mentally arrest a person at a point where you believe that a reliable answer may be obtained; you construct a theory about the person’s feelings and you attempt to test the validity of your theory. While this is a particularly psychological interpretation of the nature of assemblage points, they are, in fact, physical points in space which lend themselves to interpretation in terms of the principles of physics.

I mentioned back at the beginning how the head and body have a harmonic relationship, and how you can locate the lower range of harmonic nodes along the axis perpendicular to the transverse plane. The first harmonic nodes can thus be found at the top of the head, and just below the buttocks. And, to draw an analogy between these nodes and the relatively simple case of aural harmonics, a string of this length left to resonate in the sonic ambiance would do so with a frequency of about 180 Hz. The middle of the string would be most displaced by vibration at this frequency, and consistent with the definition of a node the ends of the string would be motionless. But if the background noise had a pitch of twice this frequency, then the middle of the string would be motionless, and the greatest displacement would be adjacent to the fourth harmonic nodes. So, to compare the behaviour of this string with the electromagnetic field around a body, the assemblage points coincide

with the location of the nodes, but not because they are relatively motionless compared to other parts of the field. It is because a node so uniquely defines the pitch at which the field will vibrate that it qualifies as an assemblage point. It is the pitch of the radiant energy produced that gives an assemblage point its particular character. In this case the heart will produce a relatively warbling bass compared to the poles which will be brighter, and more energetic. Any questions that you may have with regard to a person's particular attitude may be addressed to a point in their resonant electromagnetic field, and the sort of answers which you receive will be elicited as a matter of involuntary reflex.

The body will pump out about 120 Watts of energy at a range of frequencies because of its residual heat, and because it will resonate in sympathy with the light in its vicinity. So, just as there are assemblage points within the body, there are also assemblage points out there in the stream of energy which is emitted by your body continuously. A field will exist between two points within the body, either between a pair of charged particles, or between the poles of a magnet, and because our bodies are composed of these things a field will exist between you, and those others with whom you relate on a daily basis. In spite of whatever reservations you may have about adopting this view our bodies will behave like electrically charged particles, and electromagnetic resonance is the unavoidable consequence of this.

Having established the existence of an energy field between you and those significant others in your life, let me tell you how I believe telepathic relations may be entertained.

The visual and linguistic encoding of your perceptions will flow with the radiant energy around you. Your thoughts are merely modulations in the energy stream which you are continuously emitting, and these modulations are so similar to the timing of music

that music may be thought of as a very close analogy. Your thoughts will mingle, perhaps imperceptibly, with others in a way similar to the way in which harmonies mingle in music, so telepathy is really no more mysterious than the conversation which results from the careful observations of a sensitive mind. When you think about some subject all the different facets and implications of this subject may be thought of as the natural harmonics which resonate with its contemplation, and which all of us will share to some extent. So, the thoughts of others will either resonate in sympathy with these harmonics or they will be in discord with them depending on their particular attitudes and experience. All it takes to become a telepath is to change your beliefs about this phenomenon, and to judiciously study the behaviour of your very own mind.

You can't help being part of a network of electrically charged individuals, for whom the manipulation of power is a skill which has been learned from practical experience, but I'll bet that few of us appreciate one fairly subtle aspect of our power. You may learn how to telepathically relate to those other humans who are important to you in your life, but it may surprise you to observe that your powers are much greater than such modest relations would suggest.

120 Watts may not seem like much power in the grand scheme of things, but you may be surprised by how much of the electromagnetic energy which is pumped out of your body escapes from the atmosphere to begin its journey across all time and space. You've seen pictures of the Earth taken from space, and you've seen how much detail those spy satellites are able to capture, so there's no denying that when visible light bounces off the Earth back into space a permanent record of our deeds endures forever. Visible light is a relatively short wavelength radiation, but the atmosphere is just as transparent to longer wavelength radiation, as the numerous ground based radio telescopes suggest. Animal bodies absorb and emit radio waves no less than they absorb and emit light and heat, and the longer

wavelength radiation is a little easier for us to relate to because its frequency is more familiar. But even so, it is staggering to think that a wave of electromagnetic energy emitted by your body now, is well beyond the radius of the Moon within the time it takes for the heart to beat just two or three times. And, it is staggering to think that you emit this kind of energy into the vacuum of space at each and every moment of your life.

The intensity of the radiation diminishes according to the inverse square law, but this doesn't mean that your electromagnetic signature isn't still out there expanding forever. It is amusing to think that you are at the centre of your very own bubble of perception, the radius of which is the speed of light times your age, and that this indelible record of your life is now a permanent feature of the universe. Forget about venturing into the unknown in your rattling star ships, because it's all too late. Like it or not, you are already well and truly out there.

Chapter 10

All the stars and galaxies are both composed of assemblage points, and are assemblage points themselves, so it is a fairly general term whose particular utility is to make clear to interested parties the existence of countless different points of view. Among these we may expect to find a great deal of diversity, yet in spite of our differences it is the representation of a nominal energy field, and its subsequent radiation, that unites all material existence in the sharing of a common identity. Not only are we made in the image of our progenitors, but we are inextricably implicated in the unfolding of their cosmic dialogue. While it may not be your preferred interpretation, I suggest that we may mentally relate not only to our fellow human beings, but to all the different creatures here on Earth, and even to the very stars and galaxies.

This dramatic conclusion brings me to the end of my telepathy story. You will no doubt remember that I introduced this discussion in the context of our problem with human numbers, so you may be wondering how fostering telepathic relations is going to help in this regard. Maybe you think I'm trying to persuade you to adopt some kind of deviant sexuality, rather than run the risk of overpopulating the planet by entering into physical relations. Or, maybe you think that developing a telepathic rapport with others could complement your sexual behaviour rather nicely. In any case this sort of thinking is a diversion, one which may be worth considering, but I doubt that developing this sort of relationship will make any difference to the birth rate. People unavoidably entertain a mental picture of those for whom they feel affection, and this has likely been the case throughout the entire course of time, so the development of this sort of relationship will probably not be a significant factor.

Far from advocating a change in your sexual behaviour, my intention has in fact been to alter your perception of death. If you're like most people, then your beliefs about death have been put together in such a way as to make reproduction both a convenient organising principle in society, and a matter of doubtless biological necessity. But this is not the only way of looking at it. People who spend most of their time bringing up children content themselves with being able to look across maybe 70 or 80 years worth of life experiences. But, you could be looking across much larger temporal vistas if you chose to relate to some of the older beings who exist out there. And you could dissolve your beliefs about death entirely if you were able to conceive of just how much time these beings encompass. Now, you may find this prospect perplexing, but it's not as if I'm asking you to perform a feat of particular difficulty, all you have to do is to look at yourself and your experience of life from a suitable point of view. All the information you need is already a part of your memory, and all you need is to gain access to it.

For example, apart from the rich fabric of knowledge I learned from reading about Castaneda's experience, I learned more about the development of my psychedelic perception from a careful study of my very earliest childhood memories. I remember one incident which happened during a visit to my uncle's place when I was about four years old. On this occasion I was climbing onto everything I could find, as four year olds are inclined to in the absence of something more interesting to do, when I found myself at eye level with an electricity meter for the first time in my life. This would have been about 1960, so the meter was an old mechanical one consisting of a metal disk which rotated very slowly through a magnetic field. You've probably seen one of these so you will know that there is a small black mark on the edge of the disk which announces the completion of each rotation. While the rotation of this disk may seem quite innocent to you, I assure you that at the time I didn't think so. It was as if I had been arrested by the ghost of forgotten cosmic memories because I

remember looking at this mark on the disk come and go in abject horror. I was possessed by a fear so palpable I was trembling, and I will never forget this silent confrontation with my very deepest reflection.

While you may be inclined to doubt the significance of this episode from my childhood, I'm sure you'll appreciate how it has since intrigued me. This is just one example of a variety of memories I have of a consciousness which transcends the human scale of existence. It could have been a reflection of an atomic memory as much as one of the many stars and galaxies, and I'm sure you will also appreciate how it represents a perception which I believe is not that uncommon in all of human experience. People may be secretive about memories which seem to defy a reasonable explanation for fear of exposing themselves to ridicule, but I suspect that memories such as these exist in abundance just below the surface of our consciousness. Since people tend to refrain from discussing themselves in such intimate detail, the vocabulary which may be used to describe this fascinating aspect of our lives is meagre to say the least. It is fairly likely that a lot of people's religious passion is charged with the memory of their earliest waking moments, so that any reference to their perception of this time is usually cast in the decorous language of religion. It is no wonder that a lot of this entails the representation of their Heavenly Mother and Father, but it is the implication of a potential to perceive the infinite progress of time that is of particular interest to me here.

Now, don't try to tell me that you don't know what I'm talking about, because I won't believe you. While the overwhelming emptiness which fills the infinite expanse is well beyond our capacity to relate to, the infinity of time is conversely a perception which we may relate to quite naturally. You can put your clock away because Eternity is not an interval you can measure with any degree of formality, on the contrary it is a feeling which you will have to cultivate as an individual. It is not something you can easily share with others in spite of

your intentions, because Eternity is a knowledge which is obtained by a very personal observation of your sentimental attachment to existence. It is a perception which is different for everybody, its particular shape depends on the unique experiences of each individual, and yet it is possible to show you where in the spectrum of your feelings you may discover this fascinating insight.

To compare my own experience of this feeling I remember when I was a child it was strongest for me during the morning, probably because I was most receptive to it at this time having just woken up, but also because the dawn is such a poignant visual drama for an infant. For an older person the late afternoon presents a similarly poetic challenge, and an older person can mentally toy with the horizon which is not something a child would immediately think of doing. But by no means do you need to practice this mental exercise in order to catch a glimpse of Eternity. I remember as a child I would see it in the shadows, or to be precise I would see it in the luminosity within the shadows which reminded me of a radiance whose warmth and colour I seemed to have known forever. Looking back on this experience it occurs to me that Eternity and Maternity are terms which point out a fairly arbitrary distinction from a child's point of view. Indeed, it would not surprise me to learn that mothers actually exploit this association when impressing on their children the uncompromising sovereignty of their role.

In any case, many years later at the height of my psychosis, I was able to conjure up the mood at any time. I could see Eternity in the midday sun and throughout the afternoon, but it was during the hours before dawn that capturing this feeling provided me with most satisfaction. It's not easy for someone to begin with this time because at night there are so few spatial cues for you to refer to, but it's not difficult when eventually you find out where in your feelings this interesting mood is located. If I had to look for my memory of Eternity from scratch I think I'd begin with a good look at the sunlight which enters the

atmosphere at an angle during the late afternoon. You'll want to stand in a shadow of some sort, such as a tree, or even a nice puffy white cloud, so that you're not blinded by the light. And you'll want to look at the sun indirectly, not because of the brightness of the light, but because you want to look at the Sun not with your eyes but with your mind. Your eyes will, in fact, be a distraction from the task at hand, and the mind is just as capable of seeing things, so don't be afraid to use your imagination because, after all, it is a memory of this feeling that you are looking for.

The edge of the shadow is worth having a look at because of its similarity to the twilight which may help to jog your memory, but there is something even more interesting for you to look at which will require a little imagination on your part. Try to trace in your mind a line which extends from the horizon back into the picture plane to the Sun, a distance of some 500 light seconds. This will give you a sense of the gulf between the Earth and the Sun which is a perception you will be somewhat unfamiliar with because your sense of depth is so limited. It will also give you a sense of the path which a ray of light will trace as it passes you at a truly phenomenal rate. And you may also want to imagine the huge transparent bubble of energy coming from the Sun which flows past you like the wind as it slowly begins to fill the most distant reaches of the Solar System.

The surface of this bubble will be almost completely flat when it passes you, extending in a direction perpendicular to your line of sight as you look at the Sun, and you will hardly notice the electromagnetic waves gently breaking over the substance of your being. You may like to think of your favourite piece of music while practicing this exercise because music is an analogy which ideally portrays the tonality involved in the radiance which warms us. I like to think of some of the more ambient styles when looking out into space this way, but I’m sure that you will appreciate the effect no less if country music happens to be your preference. And when you’ve finished looking at the Sun in this way turn

around and take in the dusty Earth beside you. You will probably be receptive to a glimpse of the staggering age of this ancient planet, and I'm sure that its weariness will rest you.

These observations may seem trivial to you. But if you can overcome your Earthly point of view, and begin to relate to the celestial domain which is right before your eyes, then I think that before long the perception of Eternity will become second nature to you.

I will discuss how this perception differs when you investigate the darkness of an endless night in a moment, but first let me point out that if you can locate your memory of this feeling then your beliefs about death will undergo a transformation. If you're like most people then these beliefs are based on the apparent inertia of a lifeless cadaver, of which you have some experience since you are probably a meat eater, but this is a fairly restrictive way of looking at the experience. Your experience of death is therefore vicarious, and it is a condition of your beliefs that you are unable to have any sort of firsthand experience of it without actually crossing the threshold, so to speak, never to return to speak of it. But my experience with schizophrenia has shown me that this is not the case, you can have a knowledge of death without dying, quite a comprehensive one in fact, just by making the decision to associate with its presence. I don't know how you will picture the presence of Death in your life, since I believe that it is different for everyone. Maybe Death will be a fearsome warrior for you, or maybe it will be Almighty God, or some intermediary of this being, but for me Death is a very old mother for whom the symmetry of birth and death is like that which you see when you look into a mirror.

My point is that if you can develop a personal relationship with Death, and in doing so become familiar with your memory of Eternity, then sooner or later you will have to conclude that death is by no means the end of it. While your afterlife may be unseen by any

witnesses to your demise, your consciousness endures for as long as you have the will to resist your weariness, and then you revert to dreaming which could transport you anywhere. As in life you stand before the infinities of time and space which are populated by beings whose sole purpose is to store information, so you could encounter any number of memories as the remaining electric and magnetic energy in your body slowly becomes entropic. In the past you may have scoffed at talk of past lives and reincarnation, but I wouldn't be too quick with the ridicule because in the infinite complexity of your private universe I'm sure you will agree that anything is possible. It has been my experience, and is quite likely the experience of others like me, that looking at life and death in this way is somewhat consuming, and I'm sure you can imagine how it is incongruous with the bringing up of children. Children need to be encouraged to live, rather than to confront the possibility of their death at every turn.

I won't deny that arguing in this way involves the assumption of a point of view which puts a premium on the experience of individuals, and I believe that it goes a long way toward explaining why schizophrenics are so inward looking. They assume this position because cultivating the sort of vision I am referring to requires a fairly subtle exercise of mind, and considerable concentration. Now, by no means am I suggesting that you all become schizophrenic, but let me point out one rather obvious basis on which you could refrain from having so many children. While you may be able to justify reproduction in a variety of ways, such as in order to satisfy certain emotional needs, you will probably feel most confident justifying this behaviour because quite simply you believe that one day you are going to die.

This is of course true in a sense, but I'm sure this discussion has shown that it is a fairly restrictive sense, and that there is a more general sense in which this is not the case. When you die you will undergo a profound transformation, but you will remain an integral link in the regression of abstractions even though your heart has stopped beating, and you

have begun to decay. Your dead body may seem lifeless from the point of view of those loved ones who you leave behind you, but only because they are unable to conceive of your perceptual transformation. Dead people will give up their prior form, but there is no way for them to remove themselves from the representations which every particle of their being embodies. In fact an understanding of our place in this system will be even more vivid to dead people because they lie alone in the grave, and so they can no longer avoid looking at their experience of life in this way. Having had a taste of such knowledge, however, a dead person may be driven into slumber and to forget about such things because Eternity is a perception which can be overwhelming.

In any case, if you are not really going to die, or to put it in more formal terms if you are able to solve your apprehension of death in terms of a fundamental alternative, then you can't really justify reproduction on these grounds. If human numbers were considerably smaller than they are today, then the anticipated death of an individual would undoubtedly justify his or her reproductive behaviour. But my point is that this assessment of our ecological behaviour is not the case, according to the latest environmental indicators human numbers are very clearly excessive. I therefore suggest that if you were able to develop a spiritual rapport with the planetary host then not only would you be guided through the ecological choices which you will have to make on this planet. But you would also be able to envision a much larger vista of time which would help to revise your somewhat one sided beliefs about what death will ultimately hold for you. For many thousands of years human cultures have struggled to come to terms with their beliefs about the nature and purpose of death on this planet, but I believe that it is only in the context of the host model that our understanding of this experience will truly console our grieving. It is only in this context that Death will be able to comfort you with the memory of a being who is billions of years old,

and who has shared an intimate physical embrace with you throughout your entire Earthly existence.

It is coterminous with your belief that you are going to die that you look at your experience of life from the point of view of the group rather than from that of a solitary individual. I can tell you from experience that a solitary individual has considerable latitude in this regard. Any difference between the two points of view would, however, be a matter of taste, except that the group is evidently environmentally irresponsible, and so it is up to individuals to take remedial action. If you happen to have several children then in spite of all your environmentally friendly pretensions I’m inclined to question how much you would care about the environment if its protection meant that you had to sacrifice your interest in reproduction. And so it seems to me that all you really care about is conforming with the roles which structure the human family. Either that or you simply can't think of what else you could do with your life, which is why I believe that the present discussion is so important. Schizophrenia may be demonised in modern society, but at least it provides a satisfying world view which has a minimal impact on the now fragile global environment.

And in case you think that the somewhat solitary existence of a schizophrenic is necessarily lonely, then let me say that at the very least Death is a faithful companion, and one who is not incapable of compassion. I remember on the eve of my first admission to psychiatric hospital I was on the verge of dying from exposure and exhaustion. I had been walking between towns in the Central West of New South Wales for several days prior to this memorable afternoon, as I had done quite frequently during the previous two years when my psychosis became a problem. I could no longer distinguish between reality and hallucination so that fear had become a persistent feature of my emotions, and walking was the only way in which I could exhaust it. I had little interest in eating, and when I went out walking I didn't even carry any water.

I sat down beside the road to rest that afternoon, and marvelled at how my bones were visible beneath my skin, when a passing motorist evidently informed the Police at the next town of my unusual behaviour. When the cop arrived on the scene I was so detached that he could not get a spoken word out of me. I was focused on the feeling of my skin slowly peeling off my bones, but I felt so peaceful and so satisfied with my existence that the prospect of dying seemed to be most welcome. I was immersed in a serenity which I had not known since very early in my childhood, and I felt that my body could just dissolve into that magnificent landscape. Of course, Death can be cruel to some unfortunate souls, and especially to their loved ones, but Death may also be your most reliable companion. Not only can it inspire an exemplary life, but its presence may chasten you at a time when you most need it.

Most favoured among the benefits of developing a personal relationship with Death is the sense of time which its reflection will allow during the quiet hours before dawn. I had a delightful experience of this during the early stages of my psychosis as I drove a taxi throughout Sydney overnight. The night shift began at about three in the afternoon and lasted twelve hours, so it wasn't long before I became a frequent visitor of the night. I would sleep through most of the day and only got out of bed so that I could go to work, or walk a lot. I drove the taxi only three or four nights a week so I had plenty of time to investigate this fascinating world, and with my ability to hallucinate I saw some things which revolutionised my naive point of view. In particular I was able to glimpse the staggering pool of time which was otherwise hidden from view right before my eyes. It wasn't long before I realised that when you are a solitary type there is no-one left to impose their view of the world upon you, and so you are free to conceive of the universe in all of its true majesty. While most people were sleeping I was able to see that the Galaxy is not a being who exists somewhere way out there, but it is one who is right here among us, and I must confess that the knowledge of its

presence here on Earth really shook my pants off. When I was out walking around on my nights off I frequently had to shy away from crossing bridges because the symbolism was so severe. In the quiet of those dark urban nights these menacing structures seemed like they were a bridge across all time.

Now that I have established the potential for receptive individuals to perceive a truly vast cosmic vista, I want to point out an intriguing solution to the contradiction which life and death seem to hold from the group's point of view, and which our understanding of the regression of abstractions allows us to propose. It depends not so much on the realisation that time may be of a thoroughly personal nature, as may be the case with respect to individuals who are prepared to undertake such a perilous cosmic journey. On the contrary it depends on being able to recognise the sense in which our own death will already have been negotiated by those minuscule cells and atoms which provide us with the substance of our being. They represent a microcosm within us, and in this sense we share in an experience of death which is ultimately identical.

While it won't surprise you to observe that death is unavoidable, it may not have occurred to you that death is portrayed in terms which have only representational significance. You experience death vicariously every day, of course, because nearly everything you eat is produced by harvesting either animals or vegetables. And while you may feel free to satisfy your hunger as if it were the means by which you achieve your goals, you fail to realise that eating can be located in a context which is purely symbolic. If the body represents a map of time, and in the course of its unfolding you are eating dead bodies, then the oesophagus and the intestines represent their ultimate destiny. You could say that the intestines represent the death of such creatures, and since we have been eaten by animals the intestines represent the death of us as humans also. The portrayal of death as a river in some cultures may be more than metaphorical because of the similarity between a meandering

river, and the twists and turns of the small intestine. Among the multitude of representational forms which occur in nature, rivers can be seen in a symbolic context where they represent, among other things, the cyclic nature of both dying and being born again.

When a river empties into the ocean some of the water is evaporated. Some of this is blown back over the land where it will fall again as rain, and then it re-enters the river where the cycle will begin all over again. Rivers are therefore quite a unifying theme in the unfolding cosmic drama, as are the intestines of animals whose microbial flora enters the food chain when they are evacuated during defecation. The comparison is thus poetic, as is the comparison between the intestines and the representation of a spiral in nature such as in the case of stars and spiral galaxies. The comparison is notable not so much because of the similarity between the shapes of these organs, although this is also notable, but because at the end of the large intestine the rectum seems so much like the black hole which is supposed to exist at the centre of galaxies. It raises the question of whether the rectum represents the true gravitational centre of our lives, but I believe this to be a case in which representations share a common symbolic identity. The rectum may share some features in common with gravitational centres such as the Sun, or the countless stars and galaxies, but the heart will also share some of these features, as will the centre of the brain in some respects. So it is more a matter of consistency to associate the Sun, not with the poles of an animal's electromagnetic field, but with the heart at the centre of its torso.

Nevertheless the rectum portrays the acceleration of bodies in the vicinity of a gravitational field more graphically than the heart or the brain ever could. And I am drawing your attention to these awkward anatomical features because I believe that the rectum and the brain differ in terms of their relative sophistication. While the rectum consists of a fairly primitive representation of the origin of time and space, the centre of the brain is one which is much more sophisticated. I therefore suggest that relative sophistication is a theme which is

persistent in nature, and an interesting example of which is the process of evolution itself. But, if I'm not asking too much of your capacity for understanding, I believe that another is the apparent difference between males and females. Now you may be wondering how this relates to my discussion of death so let me point out that both sex and death can be understood in terms of the relationship between these polar identities.

While it may be somewhat controversial to suggest that men and women can be differentiated in terms of their relative sophistication, I believe that the trajectory of our discussion supports what is nevertheless an enlightening inference. If the body represents a map of time, and bodies differ in terms of their sexuality, then it is not unreasonable to suggest that sexuality represents a specifically temporal dimension. In spite of whatever objections you may have about characterising men and women in this way my personal experience has been that men tend to be a fairly brutal lot, while women are comparatively civilized. It is also curious, and not particularly contentious, to note that the universe began with considerable violence, and that some thirteen billion years down the track it is now more peaceful than it has ever been before. It is likely that the universe will be even more civilised in several billion years from now, and so it is consistent with the apparent refinement of nature to suggest that men represent the beginning of time, and that women represent the end of it. They meet each other and give birth to children in the duration, and let me just add incidentally that at the end of time you will not meet your demise, but you will be ploughed back into the project of your ongoing domestication.

That men give themselves to women entirely in the act of sexual congress is not a claim which you can seriously object to, and so it is not surprising to observe that in the course of time they become more like them. But it may surprise you to observe the sense in which gametes originate from opposite ends of time, and that in the act of sex it is the particular function of sperm to reach from the very beginning of time to the very end of it.

Indeed in this sense the developing embryo represents the genesis of the entire universe, and so there really is no wonder why the new born are steeped in the mood of Eternity. The beginning of time, and the end of it, are therefore symbolic identities which evidently exist simultaneously, and which preclude the existence of absolute identities because their simultaneous existence would result in a contradiction of cataclysmic proportions.

Now, I hope you won't mind if I add that there are two ends to the sex organs for both men and women. I'm not going to expose you to a graphic discussion of this subject, so I hope you'll feel free to engage in a little private study if you find that you are unable to fully appreciate what I am referring to. Suffice it to say for my purposes that during intercourse the electric and magnetic materials contained in the sex organs produce a polar field. Indeed you will find that a more satisfying sexual experience may be obtained by making sure that this field is fully polarised. While you may not be thinking of your offspring during intercourse, I'm sure that you will not fail to appreciate the significance of this field to the subsequent cleavage of cells following conception, as they divide and become more numerous. You cannot overlook the sense in which the polarity of this field permeates every feature of embryonic development, indeed a residual trace of the field's polarity will remain with the conceptus throughout its entire existence. Polarity is thus a particularly fundamental feature of our existence, and this has evidently been the case for every manifestation of nature throughout the very unfolding of time itself.

Not only does the magnetic field produced by the sex organs polarise during intercourse, but I believe that the field actually splits into two, and that its division results in the creation of a template according to which embryonic cell division will take place. I believe that the passion involved in a couple's sexual climax is virtually identical to that which a developing embryo will experience during cell division, and that sex is in fact emblematic of the experience of living organisms in general. My point is that the implication

of a somewhat desperate polar antagonism in both sexual experience and organic development, represents not only the vitality of organisms, but it also represents their dying. As cells divide they experience the passion of love, but they also suffer the loss of loved ones when they divide and become more numerous. Since the life and death struggle of individual cells will be multiplied by others who populate our bodies in truly phenomenal numbers, this aspect of our lives allows us to infer that we experience life and death virtually simultaneously. I therefore suggest that you should not only look for your death at some point in the distant and unforeseeable future, but you should also look for it in the past. Death may be a passionate experience, both for the individual in question and for those loved ones from whom he or she has been parted. But it is one which has already been experienced in so many different ways that it should now be a permanent feature of your memory. Just as you may retrieve your memory of Eternity, I believe that you may also discover your memory of dying, because in my experience both Death and Eternity resonate with such mutual sympathy that they are virtually synonymous.

To say that you will grow old and die is, in my view, an inaccurate representation of the facts when it is closer to the truth to say that you will grow weary and sleep, and that in your sleeping you will dream. And, when you are fully rested, from your dreams you will then awaken. Have no fear if you choose to turn from your reproductive habits because Death is already your most faithful and sympathetic companion.

Chapter 11

I hope that you have not found this discussion too disturbing. You may find my point of view somewhat unfamiliar, but it is otherwise quite innocent since my intention has merely been to point out to you that Death needn't be the foggy mystery which most people are content to regard it. Contrary to the sort of creative thinking I allow myself to enjoy, your beliefs about death probably conform with the teachings of one of the major religions. While these tend not to encourage you to deviate much from established doctrine you are probably horrified by a lot of what I have to say anyway, and in view of the apparent novelty of some of my ideas you may be wondering where it is all coming from. Well, the answer to this question is quite simple. I have mentioned several times that I was impressed with Castaneda's writing as a youth. I thought a lot about what his confidential informer, Don Juan, had to say, and I believe that my own ideas are a synthesis of his thinking and the logical premises of much of modern physical science.

The host model of Earth is, of course, new to both theoretical constructions. Its emergence was more a matter of serendipity, both as a theoretical paradigm in itself, and as a means of translating Don Juan's point of view into one which Western thinkers could more easily relate to. Yet in spite of these considerations I believe that my views really deviate from those which you are likely to possess in so far as mine represent the point of view of a person who expects to be alone in life. I don't think you can overestimate the significance of this distinction. And I'm sure it will be clear to you how a solitary individual will have a completely different outlook on life compared to a person whose motive is to bond with another for the sake of reproduction. The whole geometry of space is different for a solitary individual, and so it is hardly surprising to find that the views of such individuals differ so

dramatically. This is particularly evident when comparing their differing attitudes towards death. I'm sure you will appreciate that for couples and families death is the very worst of enemies, but for one who is committed to solitude death is another matter entirely. And so I tell you, from my own personal experience, that Death can be your best friend and advisor.

I hope you won't be confused by my somewhat reckless discussion of what is, in fact, a very serious matter. I hope you don't think that I'm advocating suicide in any way, because I'm not. What I am advocating is the assumption of a point of view which provides a profound insight into your personal experience as an individual, particularly with regard to the retrieval of memories which date from a time prior to your recollection of society. There really is no need for you to be alarmed about what I am saying, because I am simply pointing out that you experience life and death virtually simultaneously. And so you will already have a memory of death which you could retrieve if only your theoretical model of this experience allowed you to believe it.

Your relationship with death is, of course, a very personal matter, and for this reason it is one which you will have to resolve pretty much on your own. The Church is, of course, built up around a theoretical treatment of this subject, and you may feel inclined to resort to the authority of established doctrine. But the Church is not particularly well equipped to deal with this subject because only the social aspect of it is dealt with, and so individuals are not encouraged to confront death until such time as illness, or bereavement make it absolutely necessary. This is not entirely fair because the Church does, in fact, do its best to confront this subject. In the case of the Christian Church, for example, eternal life has long been promised to members who believe that the Saviour Christ died so that they could awaken to a new life when they die. How this may occur nevertheless remains so much of a mystery that individuals who happen to have an inquiring mind will find themselves struggling to give credence to the somewhat superficial logic.

In any case the Church will always regard death with enmity because of the close symbiotic relationship which it has with the family, and so the two institutions will tend to share a common view of the matter. Indeed, it is not without some trepidation that I suggest that the relationship between the Church and the family is so close that I doubt the ability of the Church to be entirely objective about anything to do with the family. The relationship is so intimate that in the case of Christianity the Church and the family reflect each other to such an extent that God is cast in the role of father, Christ is his son, and the mother of Jesus completes the Holy ensemble. The portrayal of these relationships is, of course, consistent with those which occur in nature, and I myself cast the planetary host in the role of an ancestor who is both Maternal and Paternal in a manner which is virtually identical.

But if the health of the planetary host is suffering because of excessive human numbers, then the family, and by implication the Church, are guilty of a collusion which has resulted in considerable damage to what is evidently a very vulnerable being. I'm inclined to suggest that some kind of disciplinary action is in order. But if you doubt the validity of such a provocative suggestion then I ask you to consider how passionately you would feel about some other species taking the liberty to breed without compunction. And if you believe that humanity has a special relationship with the planetary host then consider how much more closely the cows resemble this being, and then compare their behaviour to your own. You may believe that the Church represents Almighty God on this planet, but hey, don't kid yourself. The Church represents the interests of the family first and foremost, while the natural environment has been of such minimal interest to the Church that prior to our recent ecological troubles the subject was never even mentioned.

It is ironic to compare our present environmental predicament with the sentiments underlining a quote from the opening chapter of Genesis where God commends Adam to “be fruitful and multiply,” to “fill the Earth and subdue it,” and to “have dominion

over... every living thing that moves on the Earth.” In view of our recent environmental troubles this would seem to be pretty poor advice which fails to inspire much confidence in its author. And yet I'm sure it will be clear to you how much it has appealed to prospective parents throughout the three and a half thousand years since these words were first recorded by Moses.

Moses wrote the first five books of the Bible, and these books along with the rest of the Old Testament, and also the New Testament, are the foundation stone upon which the Christian Church is built. The books written by Moses are also important to Islam, just as the Old Testament is important to people of the Jewish faith, but I won't risk insulting those readers who are committed to these religions by speaking of things about which I am ignorant. Christianity, on the other hand, has always been a compelling if somewhat antagonistic presence in my life. I know a few things about Christianity, and so I will confine my remarks to a commentary of this particular religion, although in fairly general terms much of what I have to say applies to religions of any sort.

Moses wrote the opening chapters of Genesis late in the 16th century BC while the Israelites were fleeing from their captivity in Egypt, but it is likely that many details of the story were part of a verbal tradition which may have spanned several tens of thousands of years. Humans have been language users for an estimated thirty of forty thousand years, and they have certainly been thinkers for a lot longer than this. So, if humans happen to be naturally telepathic, then it is possible that elements of the Genesis story have been handed down from generation to generation since our ancestors first began to dominate the natural environment some two million years ago.

You will probably know of a game which children play called 'Chinese Whispers' where a subtle meaning is whispered into the ear of the first player, and then each

player has to whisper the phrase into the ear of the next player until every player has heard the phrase. The point of the game is to show children how a subtle meaning can be altered when it is transmitted in this way, and my point in this context is in a sense contrary to the result obtained by a game of this sort. Rather than suggesting that the meaning of the Genesis story has been altered by successive generations, I am suggesting that it has been idealised, and that it has been transformed into something which will appeal to each generation as they heard it.

You may have thought that the process of idealising the rhetorical sentiments contained in these stories stopped when they were objectively encoded in the physical materials of ink and papyrus, but somehow I don't think so. In fact the potential for idealisation is even more pronounced in the case of writing because the stories could be digested in every detail. And since they had to be rewritten over and over in order to combat the deterioration of the fabric from which they were made, there was thus ample opportunity for successive generations of scribes to brush the nicks and burrs from off the rhetorical track.

This may seem like a fairly controversial point to make, but I assure you that the evidence in this case is unequivocal. You may have noticed while reading the Bible that the text is very polished, that the syntax and grammar is not only correct but it is nicely integrated into the overall rhetorical style, and that it is stylistically consistent from one writer to the next as the story of the Israelites is told. So much so, in fact, that I would go so far as to say, somewhat metaphorically, that the text is so shiny that you can actually see your reflection in it. While this is an obviously metaphorical assessment you will no doubt be aware of the Golden Light which shines throughout the telling of these stories and that this in part explains their enduring popularity.

Now, I know as a writer that there is only one way to make your writing shine like that, and that is by reading it over and over, and by correcting all the little niggling bumps and scratches which accumulate in your literary style. There is no way for you to obtain such a polished literary performance in the first draft because people just don't think like that. On the contrary my experience of reading and writing has shown me that nearly every sentence needs to be rewritten several times. In my case it is nothing for me read my story over and over, and add corrections wherever I please because I use a word processor, and so I can print any number of pages with no more effort than it takes to press a button on my keyboard or mouse. But it is another matter entirely to correct sentences when you are writing on a scroll which happens to be several metres in length. You may have the patience of Job, but if you have to rewrite your entire story several times so that you may correct all the inevitable errors, then I believe that you will suffer more tedium than any one man can endure.

My point is that while it may be possible for an individual to occupy a point of view which contradicts the values upheld by the group, this will no longer be the case if the individual's point of view is being compromised by those who actually represent the group. As doubtful as you may believe some of my views to be, the evidence in this case is not subject to controversy. On the one hand there is the literary resolution of the text itself, and on the other hand there is the total absence of anything critical to say about the impact of reproductive culture on the natural environment. The Bible will chasten you if you happen to commit murder or steal something because such acts are of no benefit to society, but it will allow you to do whatever you please when it comes to the wholesale exploitation of the environment. As far as the Bible is concerned the environment is an inanimate object which humanity may plunder, and as such it is by no means the very host which its florid style so graciously beseeches.

I dare say that the idealisation involved in telling the Biblical story was so ingrained in the literary culture of the time that the New Testament has also been subjected to a treatment which is similar. While the meaning of the story may not have been altered by the scribes who rewrote the parchment I'm inclined to suggest that it wasn't necessary anyway because the story had already been sanitised by the original writers. I suspect that if Jesus was so able to alter the reality which normal people share then it is likely that at some point he vocalised a lot of gobbledegook in order to explain it, none of which is mentioned by the New Testament writers. I would also like to be able to discredit the miracles which Jesus is supposed to have performed, mostly because they are so corny, but also because I could implicate the New Testament writers in some shabby fabrication. I have, however, personally witnessed some bizarre perceptual phenomena in my life, and Castaneda writes of one psychedelic experience after another, so I'm not in a position to suggest that the normal constraints on reality are inflexible. Jesus could have performed miracles, and the New Testament writers could be telling the truth, but I doubt that the truth was as simple as their somewhat one sided narrative has made it out to be.

So, in spite of how bitterly you may feel about people who propose such heresies, my intention has merely been to point out to you that the New Testament writers were probably fairly selective about which details they would include in their story. While Jesus may have had some real insight into the true identity of the ultimate authority on this planet, it would have been a fairly simple matter for the New Testament writers to omit anything overly critical he had to say about our relationship with this being. I therefore suggest that the New Testament was written from the point of view of the group for whom the ultimate value will always be reproduction, rather than from the point of view of a solitary individual for whom the ultimate value will be the personal transcendence of death. Had Jesus had the opportunity to personally represent his experience in the form of a

permanent record which was safe from the tampering of others, then his story would quite likely have been a little more critical of the ultimate goal of families.

As noted earlier the relationship between the Church and the family is so close that it is not surprising to observe people believing that cherishing family values is the only service which God requires. I say this without fear of recrimination because it would appear that cherishing family values is all that people really do when they go to their Sunday morning services. They've really got no idea about God because the identity of this being is a foggy mystery as far as I can see, there's nothing physical to relate to, and so it is up to the individual to imagine just what God could be. Church goers erect a sometimes elaborate ornamental structure specifically to remove themselves from contact with the natural environment. And then they recite prayers and sing hymns which glorify a being who bears no resemblance to the planetary host who they have so carefully ejected.

Now, don't get me wrong, there are a number of things which the Church does better than any other social institution ever could. The Church is very good at doing all sorts of charitable works. It is very good at celebrating the marriage of couples, and there is no other institution that cares so much for those who have lost loved ones, and who need the sympathy of others in order to help them through their bereavement. But in my opinion you would be a lot closer to the being who hosts your very existence on this planet if you spent Sunday morning in a country paddock with a bunch of cows. The cows bear a much closer resemblance to the planetary host than any Biblical imagery you may refer to. I dare assume such a provocative stance because in my opinion the Church exists to bring to fruition only two practical consequences. The first of which is to structure parental authority within the family, and the second is to generally structure authority within society itself.

The Church is without doubt a most venerable institution in western society, and one whose authority is both revered and of lasting benefit to the welfare of the community it serves. But it is one whose thinking seems to rely on an archaic conception of our place in this world. It seems uninclined to adapt to the theoretical innovations which have shaped us over the course of the last two thousand years or so, and it seems to hesitate when challenged by history.

"For God so loved the world that he gave his only begotten Son, so that those who believe in him should not perish but have everlasting life." This verse from the Gospel of St. John is all very poetic but it is not an analytical treatment of the relationship between life and death. There is no explanation of how one may achieve a transcendence of death, and it is typical of the sort of superficial thinking of which the New Testament abounds. Yet Church goers repeat this verse, along with countless others like it, over and over as if after the 1500th repetition it will suddenly dawn on them what the true meaning of it is. I was happy to go to Church as a child because I enjoyed the mood which my family shared on a Sunday morning, but when I became a man I couldn't believe how vacuous it all was. As far as I understand the premise for this behaviour, Church goers repeat these verses over and over in order to pass the time while they wait for their Saviour Christ to return.

Well, I hope it's not me who you are waiting for because I'm sorry, but I think I'm going to be a great disappointment to you. I'm really a very ordinary person. If you met me in the street you wouldn't give me a second glance. I don't perform miracles, and all I have to offer is a different point of view. I couldn't be Christ in any case because I'm not really a Christian. I'm an individualist, and I value a healthy environment more than a child bearing relationship with a woman. If you are one who is waiting for Christ to return, then my advice to you is to hang in there because, as you've probably noticed, it's getting pretty late in the day, and I'm sure he'll be along shortly.

Chapter 12

I first conceived of the host model in March of 1981 during a time when I had very few possessions, so I was able to pack a suitcase and move on with little forward planning. I moved around quite a lot, sometimes with no more possessions than I could fit into a simple backpack. I was very fond of a few country towns in the Central West of NSW, and I drove a taxi in Sydney, so I was able to have a good close look at the urban-rural continuum. I found that it was especially spellbinding to walk between towns overnight, and to arrive at the outskirts of a town during dawn. It was like the galaxy was waiting there for me with a friendly smile, ready to welcome me back to the accumulated urban conglomeration.

While this experience of the urban-rural continuum provided me with an insight into the impact of human numbers on the environment, it wouldn't have been the first time that I was confronted with the problem. I was probably aware of it as a teenager since there was a bit of talk about zero population growth in the popular culture of the time, and certainly taxi driving provided me with some firsthand experience of the sheer magnitude of urban existence. But it wasn't until 1985 that I arrived at the conclusion that the family was at the very centre of the problem. It was a fairly painless conclusion for me to draw since my espousal of Don Juan's point of view allowed me to assume some independence from the social values I had grown up with. So I was ready to charge my own family with their collaboration in the problem. I wasn't going to confront them with my suspicions, however, because I was deeply affected by a very serious psychosis, and I knew that I would get nowhere by antagonising them. So I decided quite simply to miss the 1985 Christmas family reunion.

Not only did I miss Christmas that year, but I don't remember either speaking to members of my family or writing to them throughout 1985, and this was just the beginning of a pattern which was to last for the next 16 years. I must have told my parents where I was living at some stage though because about halfway through 1987 they wrote to me saying that they were going to visit me. This would have been an imposition for them since I was living several hundred kilometres away from them in a town called Armidale. And it turned out that my effort to distance myself from my family proved to be a mistake in any case because not long after their visit to me I had to wrestle with the suspicion that my mother had developed a mental obsession with me.

Now, you may be wondering how I knew that she was mentally obsessed with me. Well, notwithstanding my earlier discussion of the possibility of developing a telepathic relationship with her, I assumed that she was obsessed with me because from about this time through to the end of 2001, my mother became an infuriating, and irresistible presence in my mind. There was nothing I could do to evict her from that vital inner sanctum, and believe me, over the following 14 years I tried absolutely everything I could think of to achieve this goal. My effort to distance myself from my family had evidently infuriated her, and she wasn't about to let one of her precious children get away from the family which she valued so highly.

I never knew a more agonising pain in all my life which curiously came to an end soon after the terrorist attack on the World Trade Centre in September of 2001. I had only just moved into the hostel where I am presently employed. I had a house full of new faces with whom I could share this dramatic development, and my mother was also sufficiently distracted that she evidently relinquished her mental grip on me. The video images of the towers collapsing were replayed in the media so often that nearly no-one on this planet could either think, or speak of anything else. So by the time the emotional dust

settled many months later I next observed my mother's presence in my mind in the form of a very pathetic plea to please restore contact with the family. I saw this vision of her as I was waking up one morning, and I felt so sorry for her that the very next day I wrote to her that unfortunately I was living in far away Western Australia, but that I would be delighted if she would invite me to the next Christmas reunion.

2002 turned out to be my mother's last Christmas, she passed away in November of the following year, and so I feel very lucky to have made peace with her before fate finally stole the possibility of such memorable opportunities forever. It was a very near thing, and in a sense I regret that so many years had not been spent more constructively, but in another sense I shared something very special with her, and I know that I will always have a close mental contact with her. And as it happens our conflict had another positive outcome. For many years I debated whether or not I would write this story, arguing that I didn't have the literary skills to make a start, much less to finish such a task, but it turned out to be a question of motivation when I finally got around to it. I eventually made a start on this story in order to represent my predicament to a solicitor who I hoped would make some kind of legal representations on my behalf. I was so disabled by my mother's endless mental harassment that I wrote about 60 pages which specified the details of our conflict, and which included some discussion of the host model. When I finally made peace with her I had to delete the first few pages because they were no longer of sufficient importance to me, which left me with a number of pages of useful material most of which you will by now be thoroughly familiar with.

Now, I have told you so many intimate details of my life because, much as you would like to deny the possibility, I believe that the family is implicated in the most fundamental questions concerned with the debate about the environment. My intention has been to make clear to you that the relationship between parents and children is not one which

has much in the way of equality structured into the daily practicalities which it necessarily involves. And I also wanted to draw attention to the fact that parents will without conscience resort to some fairly devious means in order to dominate, and thus to successfully manipulate their children.

I have already told you that I don't have any children of my own, but not having children doesn't mean I don't know how you feel about the mystical experience of procreation. I know, for example, that you feel virtually godlike when you create a living breathing being out of no more than the love which you share with your partner. Of course, you come crashing back to Earth when you have to change diapers several times a day, and clean up after your baby in so many other ways, but this only makes you more determined to persuade your baby to cooperate with you. You exercise your considerable influence over your child, and society encourages you to do so, as long as your persuasion does not become abusive.

You never credit your infant with having a perception of any particular value, much less one which is really quite profound, probably because your own memory of this time is fairly dim. And yet, as I'm sure this discussion has made clear to you, an infant will have a perception which many adults would envy if only they could remember the possibility of its existence. Parents will do their best to ensure that their children acquire the skills which will give them an economic advantage later on in life, but they fail to appreciate that an infant already has a point of view which will enable it to conquer the very prospect of death itself.

I am by no means suggesting that you should refrain from teaching your children to count, and to recite the alphabet as soon as they are scholastically receptive. Both the individual and the group will benefit from the provision of an education early in a child's life; children will learn vital social skills at school, and learning is also a lot of fun. But I

think you should also help your infant children to remember the knowledge which they already have in their possession. They are recent arrivals from a journey across all time, and I think you should help them to consolidate their memory of this. You could start by investigating your own memory of this time, and by attempting to capture the mood of Eternity, and then you could entertain a conversation with your infant regarding your perceptual discoveries. You may feel free to introduce a little creative thinking when broaching this subject with him or her. You may, for example, position your child close to the edge of a shadow, and point out into the emptiness of space. I'm sure your infant will already have an idea of what you are referring to, so all you really need to do is to think of ways in which you could symbolically represent these things to her.

It may have occurred to you that the possibility of developing an even deeper relationship with an infant child will make people more determined to have children, and thus it could potentially make our problem with the environment even worse. This may be the case in the short term; people may rush to enjoy the experience of a new dimension in their relationship with their children. But I'm hoping that as these children grow up they will have a clearer memory of this time, and will therefore feel less inclined to have children of their own because they are better able to reconcile their experience of dying.

In spite of the potential for even more influence over your children which sharing this knowledge with them may make possible, I ask you to be careful not to use it to force them to conform with your particular view of the world. We live in a time which is in urgent need of adaptation, and the family is an institution which is in a position to contribute most in this regard. Your children will inevitably discover motives different from those which have inspired so many in the past, and I ask you to please allow them to experiment with such things. And let me also warn any younger readers that your parents will probably treat you harshly if you attempt to usurp their authority. There's not much which can be done about this

unfortunately, but ultimately it's not necessary anyway because all you really need to do is to alter the goals which motivate you. You can maintain friendly relations with the family while you simply find something different to do with your life.

Let me also add a brief discussion of the role of the family in the aetiology of schizophrenia. I believe that relations within the family are involved to some extent, and I'd also like to compare these factors with the role of cannabis which I believe is even more influential in this regard. Let me begin by saying that in my case I was motivated to pursue the path which led to my diagnosis by a fundamental disagreement with certain features of my experience of adult life, and so my personal volition really was the germinal factor. I could clearly remember that as an infant my existence was ideal; in particular I could remember that my dreaming was as vivid as my waking. I felt certain that I could prove this to be the case because I remember visiting places in my dreaming which I could not associate with the activities of my family. So, when I became an adult I found that I could not avoid comparing my experience with such memories. Following the failure of a relationship which promised to reward me for behaving normally my mental deviation was thus a deliberate attempt to restore the transcendental consciousness which I could so clearly remember possessing.

To the extent that my mother was able to reinforce my memory of such things, it follows that her behaviour was a factor in my development of the disease. It is also worth noting that the relationship between mother and child is a particularly intimate one, not only physically, but it is also a very intimate mental relationship. It is likely that mothers mentally communicate with their infants, and that infant children respond to their mother's thinking, so that initiating a pattern of mental communication with others is also a likely factor. It would seem that reinforcing the memory of early childhood experiences in conjunction with the

initiation of mental relations between mother and child, is likely to increase the risk of a child developing the condition at a later stage in life.

While my early childhood experiences may have prepared me for my role as a lifelong schizophrenic, I believe that smoking cannabis ultimately brought this role to its fruition. I have mentioned how as a young adult I compared my experiences with memories of my early childhood, well smoking marijuana also allowed me to make some interesting comparisons. Under the influence of cannabis I was able to compare the existence which we all regard as normal with a consciousness which I'm inclined to call the 'totality of the self.' While I have borrowed this term from Castaneda I believe that it characterises the influence of cannabis on the perception, and it also characterises an intriguing aspect of the regression of abstractions. While there can be no doubt that both schizophrenics and cannabis smokers delight in a deviant perception of time and space, this perception is otherwise not available to others. I believe, however, that an understanding of both the totality of the self and the regression of abstractions will make this perception accessible to others who are un-inclined to subject themselves to the influence of such psychoactive substances.

The totality of the self is, of course, that sense in which the body consists of a representation of the entire universe, and that as a consequence of this the individual may explore the record of time which is encoded in the body's memories. I hope that your experience with this perception will help you to understand what motivates a schizophrenic to depart from conventional thinking. With any luck schizophrenia will be reclassified, not as a mental illness, but rather as an alternative view of the experience of life, contrary to that which the group will tend to espouse, and consistent with the ability of individuals to realise their naturally creative intentions.

Chapter 13

No discussion of the problem of excessive human numbers would be complete without mention of the efforts which some countries have been making to achieve population control. Most notable in this regard are a number of former Soviet states which are now negatively growing at a phenomenal rate. Information regarding how these countries have achieved this result is however scarce to say the least, and so I can only assume that there has been a fairly dramatic transformation of sexual behaviour in these countries. China is another country which is endeavouring to practice growth control by initiating a policy limiting couples to the birth of just one child, and Iran is also a nation which has taken decisive action to reduce the growth of its population. In 1986 Iran's growth rate began to decline from an unusually high 3.2 percent to a meagre 1.2 percent in 2001, which is one of the most dramatic reductions ever recorded. Iran had initiated a family planning policy as early as 1967, but during the Islamic Revolution of the 1980s a strong pro-natalist outlook was adopted which saw growth rates climb to their all time highs of over 3 percent. A faltering economy, severe job shortages, and cities which were both overcrowded and polluted convinced the revolutionary government that a reversal of this outlook was necessary, and the limiting of family sizes soon became the norm within Iranian families. There is now little stigma associated with the use of contraceptives in Iranian society, and so far Iran is the only Islamic country in the Middle East to sanction a domestic condom producing factory.

A similar undertaking has also been attempted in China. When the Chinese Communist Party took control of the government in 1949 the population of this country was already in excess of half a billion human souls, and this number was expected to double within a meagre 35 years. Already evident to policy makers of the time were the problems

resulting from overpopulation such as epidemics, slums, overwhelmed social services, and the strain on the natural environment caused by the overuse of fertile land and by the production of high volumes of waste. It was therefore a matter of some urgency that the newly installed government implement a policy aimed at reducing the rate at which the population was growing. While it may have seemed intrusive on the lives of individual families the implementation of a one child policy will probably have seemed to have been the best of a variety of pretty awful alternatives.

It was not until 1979 that the policy was brought into effect however during which time constitutional preparations were undertaken, the problem of overpopulation was brought to the public's attention, and according to the periodic census data the population estimate rapidly approached one billion human individuals. In terms of the practical implementation of the policy fines were imposed on couples having more than one child and they may also have been denied the payment of bonuses in their workplace. Throughout the implementation of the policy there has been considerable variation in its enforcement. In large towns and cities, for example, the policy has been strictly observed while in most rural areas families are allowed to have two children if the first one is either female or disabled.

The enforcement of the policy has, however, been problematic with some couples simply electing to pay the fine so that they may have a second child, and there has also been the abuse of human rights where couples who fail to adhere to the policy have been forced to undergo sterilization or abortion. There have been some grim stories told about how strictly the policy has been enforced in some cases such as the case in which a woman in her ninth month of pregnancy was forced to undergo an abortion, or how in one county in 2001 a quota of 20000 sterilizations or abortions was set because of reports that the policy was being ignored. In 2002 China abolished the practice of forcing women to undergo sterilization or

abortion, but reports continue to emerge which suggest that this law is not being strictly observed.

In addition to criticisms of the policy which draw attention to the potential for the abuse of human rights other criticisms point out that the birth rate was already in decline throughout the 1970s prior to the implementation of the policy due to the widespread public awareness of the problem. Couples were voluntarily reducing the size of their families which in due course would have solved the problem with the nation's unmanageable growth rate. The issue of volition is all important in this regard since it negates the need to force families to obey laws restricting family sizes. Indeed another criticism of the policy points out that economic development will always be the most effective contraceptive since couples are motivated to have large families so that at least some children will survive long enough to care for them when they are too old to care for themselves. Proponents of this view draw attention to the success which capitalism has had in this regard both in the provision of funds supporting the development of a welfare state, and by encouraging individuals to save for their retirement.

In all fairness to those who originally formulated the one child policy the introduction of a capitalist economy would probably not have seemed very appealing to a newly installed communist administration, so they can hardly be blamed for not choosing this alternative. But the freedom of individuals to choose the particular role which they would like to play in the course of social relations should not be diminished in significance. A nation's economic relations should be judged according to their ability to adapt to the circumstances which face them, and a nation's ability to adapt crucially depends on the freedom of individuals to choose the adaptive alternative.

However, while much of my discussion has been based on the hope that we will meet these pressing needs within the time frame available to us, the truth is that hope is very quickly fading. Yet in spite of this pessimism I don't particularly want to live in a world without hope because of the potential for social chaos, and so I hope that if we go much longer without voluntary improvements in our problem with human numbers then governments will legislate to contain them. In the context of our present environmental difficulties I hope that individuals will now be able to orient their loyalty to the long suffering planet. It may have been easy to ignore our abuse of the environment for as long as we believed that it was made of inanimate matter, but now that we are able to identify with the planetary host, and its countless inhabitants, I hope that we will review this mistaken belief in sufficiently large numbers.

You may not like my solution to our ecological predicament because you think that I'm advocating a life of solitude and overwhelming loneliness, but I expect that you assume this view because you are looking at solitude from the point of view of those for whom marriage and family will always be the ultimate value. Prior to my discussion of these things you probably thought that solitude was one of the worst experiences you could think of, but I hope that I have at least opened your eyes to the possibility of an alternative to your way of looking at things. For me it is a peculiar irony that I feel least alone when I am most alone. When I am alone I am able to maintain a mood which is subtle enough for me to relate to some of the timeless beings which I have been lucky enough to encounter in my life, and believe me there are some wondrous creatures out there. The question really is not one of what your particular preference may be, but rather the one of how urgently we need to change our ecological behaviour. You should be asking yourself how long have we got before the whole thing collapses, and do I really want to bring children into such a world?

I've heard talk in the popular culture of today which voices the question "Are we alone in the universe?" The question refers, of course, to the possibility of there being other humans somewhere out there with whom we could develop friendly relations, and who would inspire the peoples of Earth to achieve the goal of making such relations possible. Let me say, on the basis of the regression of abstractions, that it is very likely that beings similar to ourselves exist out there because we all consist of harmonic patterns which represent the same fundamental energy field. But whether we will ever encounter such people is another question entirely. Quite apart from the difficulty of one of us making the journey across the gulf of space, there is the very distinct possibility that we have both emerged from the primordial consciousness at different points in time. Not only is space voluminous, but the dimension of time is every bit as extensive.

The voicing of this question indicates, however, a profound loneliness within the human spirit which looks out into time and space in the hope of finding a reflection of itself among the many worlds which undoubtedly populate our galaxy. So loneliness is neither a novelty in human experience, nor is it particularly unwelcome. Humanity seems to be yearning for the company of those who are not unlike itself, but without realising the profound affinity which it already shares with those creatures who it is in contact with each day. Whatever objections you may have about assuming a solitary existence are therefore ironic. It is hubris which inspires the view that humanity is different from all the other creatures here on Earth, and which presumes to be superior not only to those around us, but to those beings who populate our immediate cosmic neighbourhood. If anything can be learned from the host model and the regression of abstractions then it is that we are not alone. On the contrary we are surrounded on all sides by creatures who are very similar to ourselves, and with whom we could share our humanity. It has been my experience that humanity is a spirit of compassion which goes much deeper than merely identifying those of us who share a

common location in the biological classification of animals. If it takes an adventure into the mystery of schizophrenia to appreciate this then don’t be afraid of discovering what might be out there.

When I was first admitted to psychiatric hospital in March of 1983 I had lost everything of any value in my life. I had absolutely no possessions, I had lost my sanity, I was homeless, and I was exhausted from struggling with the fear which had driven me to destitution. But it wasn't long before I started to get myself back together again. I changed my attitude completely when I was awarded a disability pension. I felt like I was an employee of the government, and so I set about the task of understanding what had happened to me. I admit that there were times when I wished I had never started down this path. There were times when I rued the day I ever took up with Castaneda, and yet I count those days of psychotic delirium among the most fulfilling of my life. Today I am able to confidently report that schizophrenia is survivable, you can venture to the edge of a profound personal knowledge, and return very much the wiser. I believe that the road is safe, and that it is certainly worth investigating. And if you feel that utter solitude is not for you then feel free to adapt these ideas to ones which will more comfortably suit you. Solitude is obviously not for everyone, so I hope that you will find a way to share this knowledge with someone who is dear to you. Perhaps the two of you could enter into prayer with the planetary host, and be guided by this being through the perilous ecological choices which each of us will have to make over the course of the next decade or so.

I also hope you won't feel obliged to alter your sexual behaviour. Sex is without doubt the most compelling motive we have for achieving social cohesion, and contrary to any conflict which your sexual feelings may suffer during the coming social transformation, all we need to achieve is contraception. Let me also point out that any value

we may derive from the infinite regression of abstractions will be in the provision of a theory about our bodies which doesn't ultimately lead to reproduction.

I would be disappointed to find that these ideas appealed only to the relatively few people who were adapted to a solitary existence, when the host model and the regression of abstractions should appeal equally to every last person on this planet. Certainly if these ideas are to have any effect on birth rates around the world, then they will have to appeal to more than those who live in the west where birth rates are already well in decline. There are, of course, serious economic impediments to implementing the sort of ideological transformation I am referring to. But I believe that with the escalation of environmental problems, the growing conflict between nation states and more serious social problems within national boundaries, there will be a groundswell of willingness among people to adapt to the challenges which face us. I doubt that I will be alone in the view that our problems will always be in proportion to our numbers, and that we could even entertain the liveliest of conflicts, if only our numbers were much smaller. There will, however, be many among you who believe that I am way out on a limb arguing along these lines, but for me excessive human numbers are obviously responsible for our problems.

We have come a long way in the last 200 years or so, but our industrial journey has cost an ecological catastrophe. Humans numbered no more than a billion in 1820 which was not so long ago that we have forgotten the demeanour of this time, the Industrial Revolution was well under way, and yet we had barely begun to realise the sort of impact it might have on this world. With so few of us we were able to achieve a profound technical mastery which ultimately led to disaster, but which offers the hope that so few of us could refrain from being quite so destructive. If our numbers were again so few we could still realise our wildest technological fancies, but with a confidence in our ability to control their ecological consequences. When our numbers are again no more than a billion I believe that

we will make beautiful music together which will echo throughout the ages, and fill the void with a radiance which will remain forever a shining example of our ability to achieve the goal of representational fidelity.