SIX

EXPERIENCE AND IMAGINATION (II)

> 'Mysticism is a rational enterprise. Religion is not. The mystic has recognized something about the nature of consciousness prior to thought, and this recognition is susceptible to rational discussion. The mystic has reasons for what he believes, and these reasons are empirical.' *Sam Harris, The End of Faith.*

Do campaigning sceptics ever have paranormal experiences? Perhaps they do, and unlike other people manage to see them for the illusions they really are.

James Randi tells of waking up one night alarmed to find himself apparently spread-eagled against the ceiling. Looking down, he saw himself lying in his bed with its familiar chartreuse bedspread, on which his pet cat was sleeping peacefully. The experience ended there, and when he woke later his first impression was that he must have been observing the scene from outside his body. But then a family member pointed out that the bedspread was at the laundry and the cat had been locked outside, in deference to a house guest with an allergy. Randi realized that he had experienced a vivid dream or hallucination; what he saw was a mental reconstruction based on memory.[1]

Something similar is described by Susan Blackmore, a psychologist and widely-quoted commentator on paranormal claims. In her 1982 book *Beyond the Body* Blackmore mentions an incident when,

as a university student, she was smoking cannabis with some friends and suddenly had the sense that she was situated outside her body. The experience lasted for two hours and while it was going on she was able to describe her light-headed feeling of roaming large distances at will. But she later understood that what she had seen didn't match the reality. She had observed a particular roof as having chimneys and red tiles, but when she checked later she found it was actually grey, and had no chimneys. Like Randi, she concluded that no part of her had left her body at all, and that her imagination had constructed the experience from memory.[2]

If this is right, it's an insight that has escaped most people who have reported having an out-of-body experience. There are also books by alleged adepts at 'astral travelling' who claim to know how to trigger the experience at will.[3] In recent years the phenomenon has been widely reported by accident victims and hospital patients who come close to death – the well-known 'near-death experience'. All these reports have added weight to the popular notion that there's a soul that will separate from the body at death and fly off to some other dimension to continue a different kind of life. That's supported by other typical features of near-death visions: a sense of interacting with deceased relatives, perhaps also – in what Kenneth Ring has called the 'core' experience – of flying at speed up a tunnel towards a bright light, being engulfed by ineffable feelings of joy, and undergoing a kind of moral judgement.

These are very powerful images, and they seem to be convincing to the people who experience them, instilling the firm belief that death is not the end; many subsequently go through a major life transformation. Yet although the phenomenon has reinforced a certain kind of religious belief, it has barely dented the scientific and secular consensus that there is no soul and that therefore there can be no kind of afterlife.

So what *is* the explanation? No one who reports the experience has actually died, it can be argued, and from that perspective it's not

a literal description of what happens after death. Psychologists have suggested that 'out of body' awareness may be an effect of 'depersonalization', a mechanism by which the ego-consciousness copes with the threat of annihilation by manufacturing peaceful feelings. Sceptics also note that it is inconsistent across different cultures and historical periods: Asians do not on the whole see deceased relatives (a common feature of Western descriptions), while medieval reports, although clearly referring to the same psychological phenomena, are more likely to involve a tour of Hell or to treat the incident as a case of mistaken identity where someone else was scheduled to die – both, as it happens, literary motifs of the period.

All this strongly suggests the experiencer's imagination is responding to expectations. It's hardly surprising, says James Alcock:

> … that a patient recovering from cardiac arrest being told (erroneously) that he had been clinically dead, and having no schema in which to place such an hallucinatory experience (if that is what it was), treats it as an 'after-life' experience. Assigning that label then makes it even more wondrous to the individual.[4]

Here too, 'misremembering' plays a role, psychologists argue. Many such reports are of incidents that occurred years or decades in the past, which makes it likely that events have been unconsciously layered with new details. Chris French, editor of the British *Skeptic* magazine, has noted that in a large study carried out by Dutch cardiologist Pim Van Lommel, four out of thirty-seven patients in a control group who had suffered a cardiac arrest (but who at the time reported no near-death experience) changed their minds on a follow-up interview two years later – evidence, French believes, that these 'memories' can in fact be manufactured.[5]

If one accepts that *something* is causing these episodes it makes sense to look for a common biological origin. It's often proposed that they are triggered by 'cerebral anoxia', which occurs when the sup-

ply of oxygen to the brain is interrupted, and 'hypercarbia', the corresponding build-up of carbon dioxide. Both conditions are known to cause hallucinations, so this might make sense. Some types of anaesthetics and medication are known to have hallucinatory properties. Also implicated are endorphins, the natural opiates released in situations of physical stress; these would account for feelings of tranquillity and euphoria.[6]

Sceptics point out that many of the elements are associated with non life-threatening conditions. Religious feelings and visions can occur spontaneously as a result of stress, drugs or illness. So-called 'mystical' or 'peak' experiences – a sudden powerful up-rush of religious feeling – are as widely reported by healthy people as by those undergoing a medical trauma. Hallucinations with a quasi-religious content are an occasional effect of epilepsy and schizophrenia, as well as ingestion of psychotropic substances such as LSD (lysergic acid) and mescaline, which can in addition give a sense of interacting with supernatural entities or of having lived past lives.[7] All this points clearly to some alteration in the temporal and parietal lobes, the areas of the brain mainly associated with emotion and the sense of time and space. Brain scans of meditating monks have been found to exhibit consistent patterns at the moment of maximum quietness, and University of Toronto psychologist Michael Persinger has demonstrated that light stimulation of the temporal lobe area can induce mystical and religious feelings, including a sense of psychic communication, of being out of the body, and of invisible presences.[8]

The conclusion reached by sceptics is that the source of these feelings, ideas and images is the workings of the brain, not any kind of interaction with an unseen world. In her 1994 study *Dying to Live,* Blackmore attempted to create a scientific model of the near-death experience, for which she selected some of the better existing ideas and added some of her own. One of her most striking suggestions is that the tunnel is an optical illusion caused by neurons firing randomly in the visual system. The density would be strongest at the

centre and fade out towards the margins, she argues, creating the appearance of a tube or tunnel. The reason why people say the light never hurts the eyes is because it's a purely cerebral event, in which the retina and the nerves are not involved.[9]

2 *The challenge for science*

These sceptical ideas are strongly resisted by scientists and medical professionals who research the phenomenon. The initial data was purely anecdotal – a collection of stories told to Raymond Moody, a psychiatrist, whose slim volume titled *Life After Life* (1975) was the first that most people had ever come across about the near-death experience.[10] But more serious studies followed. A statistical analysis by University of Connecticut psychologist Kenneth Ring confirmed that the experience was not obviously determined by any recognizable feature, such as the subjects' religious beliefs, cultural background or physiognomy, or the manner of their nearly dying. Among similar studies based on interviews, paediatrician Melvin Morse has revealed that children have almost identical experiences, and cardiologist Michael Sabom has discussed cases reported by some of his hospital patients.[11]

The information provided by hospital studies is more extensive and immediate. In Pim Van Lommel's 2001 prospective investigation, three hundred and forty-four survivors of cardiac arrest were interviewed shortly after the event and sixty-two reported a near-death experience, yielding a wealth of scientific data.[12] This will be dwarfed by a study currently being carried out in a number of medical centres in Europe and America, co-ordinated by Sam Parnia at the University of Southampton, whose results are expected in 1212–13.

With so much data to work with, researchers argue that enough is now known about the phenomenon to cast doubt on the sceptics' explanations. Anaesthetics and medication could not explain near-death experiences reported by people who have come close to death by drowning or road accidents, or by heart attacks outside the hospital, they point out.[13] There's also the fact that anoxia is associated with loss of consciousness, whereas the near-death experience is a state of hyper-alertness and visual clarity, opposites that are hard to reconcile.[14] It's true that any stimulation of the temporal lobe caused by anoxia might lead to a hallucination, but anoxia is known to knock out the memory centres quite rapidly, which would make the recall of events supposedly taking place after its onset rather surprising. Pilots who experience sudden oxygen cut-off at high altitudes or in training do not generally report near-death experiences: interestingly, one pilot who underwent an oxygen shortage *and* a near-death experience on separate occasions said there was no similarity between them.[15]

A question for both sides is why, since these brain events presumably occur to most people in near-death situations, is it that only a minority have the experience? It's more obviously a problem for sceptics, though; if endogenous endorphins are triggered in the traumatic state of nearly dying, why is the near-death experience the exception rather than the rule? [16]

Here's another mystery: how does an individual lay down coherent and vivid new memories at a time when the conditions for consciousness are resoundingly absent? The research by now includes more than one hundred cardiac arrest cases, where life functions had for a significant period totally ceased. Cardiac arrest, the authors of *Irreducible Mind* point out that this is a 'physiologically brutal event':

> Cerebral functioning shuts down within a few seconds. Whether the heart actually stops beating entirely or goes into ventricular fibrillation, the result is essentially

> instantaneous circulatory arrest, with blood flow and oxygen uptake in the brain plunging swiftly to near-zero levels. EEG signs of cerebral ischemia typically with global slowing and loss of fast activity, are visually detectable within 6–10 seconds, and progress to isoelectricity (flat-line EEGs) within 10–20 seconds of the onset of arrest. In sum, full arrest leads rapidly to establishment of three major clinical signs of death – absence of cardiac output, absence of respiration, and absence of brainstem reflexes – and provides the best model we have of the dying process.[17]

On the face of it, then, it is remarkable that someone in this condition can be having any kind of conscious experience. In one well-known case a woman called Pam Reynolds was operated on to remove a massive aneurysm: her heart was stopped to achieve a state of total brain shutdown, the blood was removed from her brain, her ears were blocked and her eyes taped shut. Yet she later reported a full near-death experience during this time. She seemed first to leave her body, hearing comments being made by members of the surgical team and watching as an electric saw cut into her skull. She then felt herself being pulled along a 'tunnel vortex' towards a light and saw several deceased relatives, all permeated by an 'incredibly bright' light. As she said afterwards, she was not merely *aware* during this state of seeming unconsciousness, but was 'the most aware that I think I have ever been in my life'.[18]

Sceptics counter that it is over-hasty to suppose that *nothing* is occurring in the brain during these states. Instruments that measure electrical activity from the scalp may not be able to detect what is going on in the deep centres; we can't insist that someone is 'clinically dead' as long as we lack the means to rule this out completely. In response, researchers question whether, even if some activity *were* still going on in the depths of the tissue, beyond the reach of instruments, it could conceivably be sufficient to create any kind of conscious experience. Considering that normal consciousness is entirely absent in these clinical conditions, they consider the answer

must surely be 'no'. Another idea is that these experiences may occur in the period either before or after the crisis of clinical death, when some cerebral activity is still occurring. But even then, people in this state are normally amnesic and confused, a state of mind that is quite unlike that found with the near-death experience – and they never experience any life-changing impact as a result.

3 *Could out-of-body perception be an illusion?*

It was the veridical claims of 'out of body' perception that I was concerned with most, because, if true, they would be hard to reconcile with scientifically verified norms. As with clairvoyant mediums and extra-sensory perception, the claim that people obtain information they could not have acquired by any known means presents a logical conundrum, and ought to provide clues about whether this is a real or an imagined experience. So I want to look closely here at what individuals say about this, and how the sceptics explain it away.

Susan Blackmore suggests that what we perceive in the 'out of body' state is actually just a model of reality constructed from what our senses tell us is 'out there'. Normally our brains have no trouble distinguishing reality from imagination. But in certain situations, such as before sleep or during a trauma, perhaps as a result of stress or oxygen deprivation, this model becomes confused and unstable. In such a situation, she suggests, to restore a sense of normality the mind will switch to a memory model of what it *thinks* is happening. However vivid and life-like it seems, this model is actually artificial, merely a product of mental processes. (Other parapsychologists agree that the sense of being outside the body is indeed an illusion, but think that experiencers are in some way employing psychic perception to discover what is going on around them.[19])

None of this would remotely impress the people who experience these episodes themselves. Typically they insist that their bird's-eye vantage point was where they were physically located, and that what they saw and heard from it was what actually happened. It was no dream, no hallucination. True, in some cases the details are no more than the patients might have expected: people were gathered round their bed crying or hospital staff resuscitated them by means of cardiac defibrillation, and so on. But to me the level of specific detail in these statements can be rather surprising. The individual may claim to have watched exactly what people were doing in the laundry room in another part of the hospital, or repeat the banter of the medics in the operating theatre, or recount the exact sequence of events at the scene of the accident they were involved in – much of which they claim subsequently to have verified.

Here would seem to be a difficulty for sceptics. How can an internal construction based on memory exactly correspond to an actual event? It might do so by chance, but where there exists an exact correspondence in a number of details this would be hard to insist on.

Having previously read Blackmore's work on out-of-body experiences, where on the whole no medical trauma is present, I was interested to see how she would tackle veridical claims in the context of the near-death experience. One approach is to suggest that the images that the mind creates are informed by 'residual sense.' That is, the patient may *seem* to be unconscious, but he is still exposed to the sounds of what is going on around him, and his brain may be able to make sense of them.

Studies have established that anaesthetics do not always knock the patient out completely, she points out, and there have been cases of people enduring the nightmare of being operated on while still partially conscious. In some cases they report hearing sounds around them during an operation.[20] If the brain is getting a feed of

information it can construct images of what is going on, in the way that a person listening to a radio drama creates a mental picture of a scene which she can't actually see.

However in general Blackmore doubts there is anything that really needs explaining. She downplays the phenomenon and implies that it's not significant. We ought to be careful before accepting people's testimony, she says, because they might be exaggerating in order to attract attention. Or perhaps they want to convince themselves that something important happened – their very enthusiasm ought to put us on our guard. If they retained a degree of sensory perception during an apparent state of unconsciousness, what they perceived could have been filled out later from reading books or watching television. It's not really surprising that a person's vision might seem to be restored, because the imagination can be extraordinarily vivid. The claims seem so dramatic because there's a temptation to make a big deal out of them, based on the distortion of memory, wild newspaper claims and the 'tendency to make a big story out of a very weak case'.[21]

This is not at all what most researchers think. For example, Michael Sabom interviewed twenty-five patients under his care, all of whom described a near-death experience: as a control group he found another twenty-five people who had gone through a medical crisis without reporting an experience. A few of the near-death experiencers, he found, could give highly specific accounts of the particular circumstances of their resuscitation, describing the equipment used and other features that closely matched the medical records. What's more, these details would not have been accurate if applied to another case, he stated. The control group were also able to give details about the procedures they underwent but were much less specific, and most made at least one major error in their account. Sabom concluded that the information that the near-death experiencers came by could not have been based solely on their prior knowledge of the medical techniques.

I found the surprise shown by Sabom's patients at specific aspects of their operations particularly telling. One male patient reports watching the surgeon pull his heart out, examine it closely and snip pieces off. 'It's not shaped like I thought it would be,' he commented later. 'My heart was shaped something like the continent of Africa, with it being larger up here and tapered down. Bean-shaped is another way you could describe it.'[22] A female patient reports how she watched closely as her back was operated on: 'I came right down to the operation and I was amazed how deep my spine was in my back … It was really incredible how deep my spine was. I had thought it was right on the surface. Then I saw them reach in and pull the disk out. it seemed like they had a long pair of tweezers but angled at the end, with which they actually removed the disk.' [23] This patient watched as complications developed and the surgical opening had to be sewn up in a hurry. She saw the surgeon pulling the skin too roughly at the top, leaving a gap; later she examined the scar in a mirror and the gap was plainly visible.

It wasn't clear to me how unconscious patients could register surprise of this kind through the processes that the psychologists describe. To have imagined it would require some prior memory, which apparently in these cases would have been inaccurate. It's surely unlikely that they were helped by a residual sense of hearing, since the doctors and nurses would not be surprised by the shape of the heart or the depth of the spine, and would have no reason to draw attention to these things among themselves.

To me these looked like eye-witness accounts; if I had not known the context it wouldn't have occurred to me to doubt that they came from a conscious observer at the scene. In sum, the idea that unconscious patients could come up with such vivid and detailed descriptions through the normal processes of imagination and remaining sensory awareness began to seem quite fantastic.

4 *Some questions about Blackmore's analysis*

This last idea led me to take another look at the critics' arguments. To begin with, I had problems with the idea of partial consciousness arising from an incomplete anaesthetic. Blackmore almost makes it sound as though this is a regular occurrence, but the evidence she provides to support her contention is necessarily flimsy: awakening during surgery is known to occur on a minor scale – in only 0.1–0.3 per cent of all general surgical procedures, which is a tiny level of incidence when compared to the number of near-death experience reports among cardiology patients, for instance. Furthermore, there isn't the slightest overlap between this and the emotional aspects of the experiences themselves. Patients who remained conscious during their surgical procedure reported feeling deep distress and pain, while those who claim to have near-death experiences felt detached, calm and comfortable, even while they were watching their bodies being sliced open and their internal organs pulled out.[24]

In Blackmore's analysis, sensory awareness is not the only thing going on here; the effect also requires an imaginative process that is backed up by prior knowledge, fantasy, lucky guesses and faulty memory. I accept that a person might imaginatively reconstruct the event, even to the extent of producing uncanny correspondences with reality. What I don't understand is *why* someone would do this. Clearly some motivation is involved: the brain is apparently striving to create a particular effect, using every available resource to restore the sense of normality. Yet it does have a more simple and effective way of dealing with extreme situations, which is to shut off consciousness altogether. Why does it need to go to such extraordinary lengths to create a convincing illusion?

Look at what we're saying here. Suppose a motorcyclist skids into the path of an oncoming truck and ends up in a bloody heap on the tarmac. His nervous system is signalling a maximum degree

of alarm: the pain and shock overwhelms him and he blacks out. Yet in the midst of all of this his brain apparently finds the resources to create a picture of what is going on around him. Why does he need this? The information can be of no use for as long as he is unconscious; he is helpless and utterly dependent on the goodwill of others. There can be no compelling survival advantage and so no obvious reason for this faculty to have evolved. Or do we think we need this ringside seat that nature thoughtfully provides, because it helps in some way to watch the worst thing that has ever happened to us – gory mutilation possibly followed by death?

What especially interests me is the way the critic deals with the most compelling aspect of this phenomenon, the fact that the details of the scene and the events, as experienced by the individual, closely correspond to the reality. As sceptics do, Blackmore reconstructs the events in a way that leads to her desired conclusion; people get confused, they forget things, they exaggerate. Here she imagines a scenario in which someone is talking about their recollections of another patient after being resuscitated in hospital:

> I could see you there, down the hall, you were wearing that green coat and skirt and your favourite pearl necklace. You were talking to George and he was waving a newspaper about. You looked terribly pale.[25]

But what if, Blackmore goes on, some of these details were actually wrong. Suppose the woman being observed was wearing the coat, but not the skirt and necklace, and she, not George, had a grip on the newspaper? No one in this situation would be that bothered about accuracy. In this way a myth is born and corroboration apparently provided, all through a combination of fragmented normal perception and apparent, but erroneous, corroboration.

This did not convince me at all. I could imagine occasional isolated claims being tackled in this way, but to apply such an ephemeral construction to such a large, consistent and dramatic category

of experience as near-death reports stretches credibility to breaking point. The conclusion I was left with is that the psychologist is inventing obvious discrepancies and assuming, unreasonably in my view, that people lack the will or ability to spot them.

It helps the sceptics' take on things that any verification of an individual's out-of-body perception that is made later – by a relative or hospital staff - is not often corroborated independently. Of course this might just mean that the concerns of people involved in a near-death trauma – either their own or that of a loved one – do not remotely coincide with those of the scientific researcher. On the other hand, it does allow sceptics make inferences in support of their thesis – that anomalous perception can't be corroborated because it doesn't happen.

5 *A doctor debunked*

But what of cases where claims of anomalous perception are made by a trained professional rather than a member of the public? The cardiologist Michael Sabom presents a problem here, because his scientific data were gathered in controlled conditions but still, from the sceptic's point of view, give the wrong result. Paranormal perception in claimed out-of-body states, he insists, is occasionally accurate and can be verified.

Again, it's interesting to see how sceptical academics deal with this. A study of the near-death experience by two American psychiatrists, Glen Gabbard and Stuart Twemlow, focus on the psychological aspects. They challenge Sabom, pointing out that 'only' thirty-two of his one hundred and sixteen subjects reported that they could observe what was going on around them while they were unconscious. Most of these perceptions, moreover, weren't particularly specific and couldn't be verified after the event. In fact, only six

cases had enough detail to be validated, which the sceptics regards as a weak result.

But his findings were still compelling enough, and I wasn't surprised to find the psychiatrists trying to demolish them completely. They start by finding fault with Sabom's methods, criticizing his control group on the grounds that it consisted of patients who merely had similar symptoms and who had not been involved in the type of crisis that gives rise to near-death experiences. They go further in suggesting that the methodology was generally unsound on several counts, and imply that the findings should be set aside.[26]

However they still seem unconvinced that they have got to the core of the matter, and feel the implications of mind–body dualism – which they believe any sane person will reject – are still uncomfortably present. They themselves are not experts in the paranormal, they concede, but they know someone who is. Step forward Terence Hines, whose textbook provides them with some standard arguments about magical thinking, misunderstanding coincidence, and so on. Having mentioned these aspects, the authors then invite us to consider that the detailed awareness claimed by Sabom's patients can be put down to *chance*. Or else, they go on to say, people who make extraordinary claims may have been duped or could be lying; even some scientists have been taken in by Uri Geller, and perhaps this cardiologist is being equally credulous. They also raise the possibility of dishonesty, although in such a vague way I wasn't sure if it's the doctor or his patients we're supposed to suspect, nor do they even attempt to speculate about the methods or motives in either case.

I was left with no idea which, if any, of these abundant possibilities might be involved here, or how they relate to Sabom's data. I doubt whether the psychiatrists know either; they seem not to accept that anti-paranormal arguments have to mean *something* if they are to work at all, and be applied in a relevant way. It's as though they hope they can make a troublesome anomaly vanish just by waving a

debunkers' book at it, much the same way as a Bible might be used to ward off vampires. And to put a cardiologist and his critically ill patients in the same category as a supposedly fake psychic surely reveals the weakness of their strategy.

6 *A determined sceptic*

Blackmore, meanwhile, is not at all impressed with Sabom and she briskly disposes of his findings. Yes, she concedes, his patients give unexpectedly plausible accounts. But, she goes on, 'without access to complete details of what happened (and these can never be obtained) we can't know just how closely it really did fit the facts at the time'.[27] In other words, we should not just take his word for what he is claiming.

To make quite sure we have got the point, Blackmore raises an episode which at first sight seems to cause her position some difficulty. This is a much-discussed case of a patient who went 'out of body' during a cardiac arrest while in hospital, who, during her roamings, observed a tennis shoe stuck on a ledge outside the building.[28] She established later that she couldn't have seen the shoe from the position her body was in at the time, even if she had been fully conscious, or indeed from anywhere else within the building. To try to verify this, a health-worker visited the hospital later and with some difficulty located the shoe in the place the patient described. This is often cited as hard evidence of paranormal perception. However Blackmore characteristically swats it away, saying that near-death experiences should not need such legitimization for they are valid in themselves, as experiences. But this case, she continues:

> … underlines all too clearly how people use claims of the paranormal to convince themselves and others that what

> they experienced was real and that they are not going crazy. And if the need is so strong there's always the suspicion that the claims may be exaggerated or even invented.[29]

By this time Blackmore had given up trying to demolish the claim's veridical challenge and has switched instead to undermining its legitimacy. She reinterprets it in the light of her own ideas, and in so doing makes the experiencer look foolish. It seems unfair to blame the patient for taking the incident as confirmation that her experience actually happened, when she was probably surrounded by family members, nurses and doctors, all of whom (like Blackmore) were trying to convince her that she only imagined it. Why shouldn't she be excited to find that her strange vision corresponded to reality, and is therefore unlikely to be a symptom of incipient craziness? But to the critic, apparently, it's suspicious behaviour, and merits a ticking-off.

So who's doing the inventing? Not the patient surely, since there was independent corroboration. Or is Blackmore saying the health-worker might have made it all up? The trail goes dead. 'This is, sadly,' she continues, 'one of those cases for which I have been unable to get any further information'. She continues:

> Perhaps it may yet be possible but until then I can only consider it as fascinating but unsubstantiated. … The suspicion must be, rightly, or wrongly, that there may be no properly corroborated cases that cannot be accounted for by the perfectly normal processes of imagination, memory, chance and the use of the remaining senses.[30]

Considering the illusory, non-veridical nature of her own out-of-body experience, it's legitimate for Blackmore to question the claim of other such episodes to be described as paranormal, and understandable that she should use any means available. But I think even she realizes that the weight of the evidence is against her. Having run out of arguments she resorts to bluffing, like a courtroom lawyer with a patently guilty client and nothing to lose. It's the process of

seeding doubt: 'The claim can't be *proved*, and so, ladies and gentlemen of the jury, you must dismiss it as spurious'. That might be fair enough in a murder trial – one can't afford to jail an innocent person without hard evidence – but in a scientific context it leaves awkward questions unanswered.

Actually, I doubt whether this phenomenon *can* be proved to the satisfaction of science. There are too many loopholes. Suppose someone who has been blind from birth has an out-of-body experience and is able to describe objects and events that correspond with reality.[31] She couldn't be said to have constructed an image from residual awareness, because, being blind, she would have no visual memory to draw on. Ah yes, but unfortunately we have only the woman's word for it that she was blind from birth; there's no documentary evidence and, sadly, the doctor who delivered her cannot be traced, so we can never know for sure.

But what if the subject is young and there's ample documentary verification that she had been born without sight? Would this convince? Unhappily, no. You see, there's no guarantee that a blind person hasn't got some residual sensory ability; it's more than likely that she has developed ways of getting information through the senses of hearing and touch. We really know very little about what the brain can do. Also we have to remember the time that lapsed between the time she came round from her operation and the point at which she spoke of her experience. Perhaps she overheard some nurses talking and pieced together the details of what went on. And after all, we are dealing with only one person – a sample of one. We have to keep on looking and researching.

Nothing can stop the counter-arguments. The person involved *might* have been mistaken, *might* have had residual sensory perceptions, *might* have read about it in books, *might* simply have made it all up. None of these 'mights' have to be demonstrated, as long as the burden of proof is still considered to lie with the person making the extraordinary claim.

But in the meantime, for their part, those scientists, psychologists and humanists who deny that there is anything paranormal going on here must surely recognize *why* this is widely believed to be the case. And they need to understand that the sorts of confused and frankly implausible arguments they often end up using are viewed with incredulity by the wider public, among whom, it should not be forgotten, these claims originate in the first place.

7 *Listening to the experiencers*

Let's focus on this word 'subjective' for a moment. What is true for me – and perhaps also for other like-minded folk – may be in direct opposition with what other people believe.

I touched earlier on the objective status of science, how it concerns itself with what is true for all of us, as biological beings, and about which there can be no disagreement. The tangible and material can be verified by any qualified person at any time, while subjective impressions, on the contrary, are not open to this kind of universal validation. The role this distinction has played in the Enlightenment is clear, enabling an essentially unifying process which, in an optimistic analysis, can be held to have furthered the development of political and social stability.

Late nineteenth-century scientists by and large considered themselves to be 'positivists', subscribing to the philosophical argument that the only real experience is that which is derived from the senses. In the first half of the twentieth century this current of thought culminated in 'logical positivism', which broadly holds that nothing that cannot be verified experimentally is meaningful at all. Its most literal expression in science was the behaviourist school of psychology, which treated thoughts as meaningless ephemera, and instead looked for insights about humans in the behaviour of rats, dogs and

pigeons in experimental situations. This historical development is attributed at least partly to 'physics envy' among psychologists, a need to demonstrate their scientific credentials by focusing on demonstrable entities rather than intangible thoughts. Now, at a time when human consciousness is being intensively discussed and investigated, it's sobering to reflect that for much of the last century *it was not even acknowledged by science to exist.*

Yet while subjective feelings are of little interest to science, they are everything in the social sphere. Those of us who are not members of ethnic minorities, who are not gay or poor or disabled or sick, can find it hard to put ourselves in their shoes, to understand the challenges they face. For that matter, being in one particular minority does not necessarily make us more sympathetic to those who belong to others. Our separateness, as Nicolas Humphrey rightly notes, is what makes us human; it's also the source of many of our problems. Our task, as friends, neighbours, service staff, therapists, doctors, scientists, politicians – or as fellow humans, for that matter – is to be aware of what other people are telling us, to try to grasp what they feel and experience, and to take that into account in our own reactions. That's what drives social progress.

But when it comes to paranormal claims there are limits to our broad-mindedness, especially in developed, secular-minded countries. It's true that polls show belief in such things as ghosts and ESP to be quite high, and that might seem to be supported by the proliferation of television programmes about the paranormal. But is it really the case? In a fictional or documentary setting the paranormal is perceived to be entertaining, but when it turns up in real life it can be threatening. People who describe having had a near-death experience often say that doctors, nurses and family members got angry and agitated when they first tried to share their experience, and there are those who for years never even dared mention it.

This is now perhaps less true than it used to be, however a reluctance to listen continues to be characteristic of professional

sceptics. Their defensive posture leads them to talk about *claims* as opposed to *experiences,* too preoccupied by the challenge to their imaginations to think at all closely about what is actually being said. From their perspective, people who report paranormal-seeming incidents are creating problems, if not actually setting out to cause mischief, and this point of view is bound to create a distortion in their readers' minds. Their insistence that these are mere anecdotes – and for that reason unscientific, undeserving of serious attention – means they lack exposure to first-hand testimony. Blackmore's *Dying to Live*, rather tellingly, is sparsely illustrated with direct speech: a comparatively bland extract from an individual's reported experience at the beginning is followed here and there by a few short quotes, none of which begin to convey the intensity of the experience as it appears elsewhere.

By contrast near-death experience researchers' studies are laced with copious quotations from individuals who are only too happy to describe something they may have kept locked up for years. This brings the phenomenon alive for the reader; it's more than just a concept, an idea. There's a palpable sense of awe in the first-hand accounts, of euphoria, exultation and mystery. Experiencers struggle to find superlatives to convey the colour, the beauty, the forms, the music – much of which, they insist, is ineffable, utterly beyond description. Those who write it down are able to seek out the most apt word, or turn of phrase, to express the memory. But in a way you get an even greater impact from transcripts of taped interviews, as people who relive the event in their imaginations choke up, grasping for words that will convey the enormity of it.

Listen to these little excerpts, taken at random from extended quotes in Kenneth Ring's *Heading Towards Omega:*

> '…if you took the one thousand best things that ever happened to you in your life and multiplied by a million, maybe you could get close to this feeling…'

> '…this wonderful, wonderful feeling of this light…'
>
> 'There was the warmest, most wonderful love. Love all around me … I felt light-good-happy-joy-at-ease.'
>
> 'I can't begin to describe in human terms the feeling I had at what I saw. It was a giant infinite world of calm, and love, and energy and beauty'.
>
> 'As I absorbed the energy, I sensed what I can only describe as bliss. That is such a little word, but the feeling was dynamic, rolling, magnificent, expanding, ecstatic – *Bliss*.' [32]

How many people can say that anything – *anything* – they have experienced in this world matches up to these descriptions? My point is that, without such live comments, readers may be left with the impression that what people experience can be described as 'euphoria' or 'a tremendous sense of well-being', a linguistic down-sizing which makes it comparable to the effects of a stiff whisky or a good workout at the gym. It's then all the easier for a sceptic to argue that it's explicable in neuroscientific terms, a release of endorphins perhaps.

It's natural to look for matches: 'that's the claim – this is the explanation'. But if the original claim is not accurately represented, the explanation can't be fully trusted.

8 *The transcendent element*

This is especially relevant with regard to other elements that attract comment from experiencers and researchers, but which are relatively absent from critical analysis. Two in particular interest me: the sudden recall of a person's life, and the religious response to the 'being of light'. Both are briefly described here:

> It proceeded to show me every single event of my 22 years of life, in a kind of instant 3-D panoramic review… The brightness showed me every second of all those years, in exquisite detail, in what seemed only an instant of time. Watching and re-experiencing all those events of my life changed everything. It was an opportunity to see and feel all the love I had shared, and more importantly, all the pain I had caused. I was able to simultaneously re-experience not only my own feelings and thoughts, but those of all the other people I had ever interacted with. Seeing myself through their eyes was a humbling experience.[33]

That sense of seeing how one's actions have affected other people is particularly strong:

> …it was like I was seeing it through eyes with … omnipotent knowledge, guiding me and helping me to see. That's the part that stuck with me, because it showed me not only what I had done, but even how what I had done had affected other people… [34]

There doesn't seem to be anything accidental about this – in fact it's hard to view many of these episodes as being anything other than deliberately didactic. It's remarkable enough that a person's inner consciousness seems to persist when all life functions have apparently ceased, but there's more: the individual also experiences a mega-powerful attack of *conscience.* This intrigued me. I found myself wondering: why, if this is simply a hallucination, does it so consistently involve an intense personal examination, and one based on a powerful sense of the effect their own words and actions have had on other people?

The word 'sense' here is literally accurate but doesn't begin to do justice to what near-death experiencers report. Describing the stage when they are interacting with the 'light', they don't say they gained a sudden insight into how other people felt; they say they experienced the other person's feelings – *as if they were their own*. A woman sees

the younger sister she bullied when she was young, and for the first time feels what the little girl felt, understanding the full extent of her anguish. A hit-man becomes aware of families of the people he murdered and is swamped by their feelings of devastation. The feedback is physical as well: a truck driver who once beat up a pedestrian in a fit of road rage feels his *own* fist crashing into his *own* face.

> And I felt the indignation, the rage, the embarrassment, the frustration, the physical pain. I felt my teeth going through my lower lip – in other words, I was in that man's eyes. I was in that man's body. I experienced everything of that interrelationship between [myself] and that man that day.[35]

These are powerful images, and they are too widely reported in the research material to be dismissed as spurious; they form a clear pattern. Here too, I found it hard to resist the idea that the process is in some way *intended* to impact on attitudes and behaviour: people who experience it are often profoundly changed and may go through personal and professional upheavals as a result. How do we account for such a thing? I'd love to hear a scientific theory that could explain how one shares other people's feelings, not in the conventional way of being able to sense them, or name or describe them, but to experience them *exactly as if they were their own,* and moreover at a time when all life functions appear to have ceased. I don't mean some formula couldn't be worked out, but it's yet one more feature to load onto a framework already tottering under the burden of sceptical speculation.

9 *Belief and experience are not the same*

Of course, the ideas of selfless love and of being judged for one's sins are the essence of the Christian Gospels. So how we respond to the near-death experience is likely to depend as much on how we

feel about religion as on the scientific data. For a conscientious but secular-minded person the choices are not ideal: accept explanations that are at best incomplete, if not obviously flawed, or be prepared to modify strongly held beliefs.

In practice it seems there's no real difficulty here for convinced sceptics. The founding publisher of the American *Skeptic* magazine, Michael Shermer, for instance, thinks it's obvious that near-death experiences are 'hallucinatory wishful-thinking experiences' and that paranormal researchers go out of their way to verify them in order to support their religious leanings. The visions may be reported by people who are not overtly religious, he adds, but researchers fail to point out that they are nevertheless exposed to the Judeo–Christian worldview. 'Whether or not we consciously believe, we have all heard similar ideas about God and the afterlife, heaven and hell.' The fact that people of different religions see different religious figures he takes to be 'an indication that the phenomenon occurs within the mind, not without.'[36]

Agnostics can explore a possible third way, shunning any literal interpretation of a paradisial afterlife inhabited by Gods and angels, while acknowledging that the appearance of such a thing fulfils some useful purpose. That's the route taken by Carol Zaleski, a Harvard religious historian who drew attention to the inconsistencies between modern and medieval reports in her 1987 comparative study *Otherworld Journeys.* Zaleski infers from this disparity that such descriptions can't be telling of something that objectively exists, but she nevertheless considers them important, not as a 'direct transcript of the truth', but as a 'lure toward truth', by leading people out of anxious, mechanical, or vicious patterns of thought and behaviour. Perhaps the chief virtue of our tendency to conceive of another world, she suggests, may be that it provides a sense of orientation in this world, through which we would otherwise wander without direction.[37]

This pragmatic stance avoids the twin perils of dogmatic scepticism and naive superstition. It also opens the door to a naturalistic

explanation of religion, that humans have a predisposition to value universal co-operation, expressed as the Golden Rule – that is, to treat others as one would want to be treated oneself. In other words the central drive is real, while the religious imagery is the illusory setting in which it is dressed. But how easily we forget that this near-death experience is *involuntary*. Patients and accident victims who are unconscious, and in some cases clinically dead, surely can't have a tendency to conceive of *anything*.

It's important to keep in mind that what we are talking about here is religious *experience*, also to note that this is a category that science has not yet learned consistently to distinguish from religious *belief* – a shortcoming which in my view fatally undermines much scientific discourse on religion. The near-death experience, in its fullest manifestation, is not a voluntary identification with certain ideas and doctrines – it's *experience*. If we cavil that actually experience is something that only happens when we are conscious, then we might prefer to think of it as a kind of dream, always remembering, however, that to dream *is to experience* – it is only when we wake that we recognize what occurred as an illusion created by the brain during sleep. But if we feel that we can now relax, and that the matter has been appropriately pigeonholed, that is absolutely not the case, for experiencers insist, unanimously and passionately, that what they experienced *was not a dream*.

Nor can I accept the suggestion that these experiences – impactful, clear and consistent – are essentially formless, and that they are shaped and given meaning by the individual after the event. Sceptics like Shermer and Alcock rather imply that if they experienced it themselves they would not be misled, or at least not for long – rather they would recognize it to be hallucinatory. But is that credible? The literature on near-death experience is now very large, and I can't recall ever seeing a secular version described anywhere: that is, a hospital patient who reported going up a tunnel to a bright light, being flooded with ineffable feelings of bliss in the presence of an

angelic being, yet far from being overwhelmed and changed by the experience, dismissed it as the effects of anaesthetics, no big deal. On the other hand, it does happen the other way round: a person who claims to have been agnostic or atheist at the time of the experience is just as likely to be affected by it as a religious devotee, if in slightly different terms.[38]

It's the same with those 'mystical' experiences described in collections by William James, Alister Hardy and Raynor Johnson, among others – brief but life-changing moments of enlightenment.[39] People who have had them don't afterwards say they suddenly felt marvellous for no reason, still less that they experienced an inexplicable mental aberration. On the contrary, even those who insist they aren't religious consistently employ a spiritual and religious vocabulary. They say that for one ineffable and never-to-be-forgotten moment the heavens opened and they saw into the very nature of things. They speak of an effulgent light and – repeatedly – of *the peace that passes all understanding*. They experience the new insight that *all things and all people are connected*, fragments of a single whole, that the human spirit is immortal, and that love is all that matters. They say things like 'I can remember feeling exultantly "This is God", and God, after all, was both personal and immense.'[40] For contemplatives in all the religions it's a state of mind that can be accessed at will, as the reward of committed spiritual endeavour; their writings include detailed descriptions of it and how it is to be achieved.[41]

It's true we can also talk about this in secular terms. Neuroscientific research has reinforced the sense that the brain has some religious centre; while ideas of a 'god gene' or a 'god module' are probably misleading, they highlight the existence of a class of mental events, some neurological patterning which, when suitably stimulated, has the potential to generate that kind of sensibility which we term 'religious'.[42]

We see it in certain types of epilepsy, known in ancient times as 'the divine madness', which some believe to have had a critical influ-

ence on the founders of Christianity and Islam, St Paul and Mohammed. It's also implicated in the quasi-religious delusions suffered by some schizophrenics. Perhaps most conspicuously it's seen in the visions brought on by psychotropic drugs. Otherworld images and spiritual transformation were a frequent effect of therapeutic LSD studies carried out in the 1960s, when patients were often said to describe a spiritual awakening, sometimes involving visions of transcendental realms, deceased relatives and mythical figures. Typically the subjects became convinced of their immortality, sensing the unity of all things and the existence of a timeless reality beyond the physical world, sometimes extending to a belief in the reality of reincarnation. It's worth noting that a similar psychotropic substance – *soma* – is credited with having produced many of the insights in the Hindu Rig Veda, the world's oldest religious text. But these 'entheogens' are far from being the only way to stimulate a religious trance: adepts of all persuasions use techniques such as fasting, flagellation, chanting, dancing, whirling or drumming to achieve visions and ecstasies.[43]

Clearly there's some physical trigger for religious-type experiences, and this naturally reinforces the view that religion can and should be explained in purely naturalistic terms. Each new study that links meditative states – or transcendental feelings, or other aspects of religious experience – to specific cerebral events tends to be greeted by atheists as the final nail in the coffin of religion: intimations of another world are just 'something that happens in the brain'. Michael Persinger's claim to be able to stimulate such things artificially in controlled conditions, although entirely unconvincing to researchers, has been especially influential in this regard.

I understand why sceptics reason like this, but the logic is not as coercive as they think. Neurological processes are implicated in all conscious activity and there's no reason to suppose that having a religious experience is any different; nothing 'bypasses' the brain. And the ability of science to correlate religious feelings with what happens in the brain, in ever greater detail, does not in itself enforce

a physicalist interpretation, or militate against a form of mind–body dualism. We have not reached the point at which we can rule out, on scientific rather than ideological grounds, the possibility that brain centres are not alone responsible for generating thoughts and ideas, but may be interacting with an as yet unidentified external source.

It's unfashionable to argue in this way, of course, but as we have seen it's also unfashionable to consider paranormal and religious experience, or for that matter other aspects of consciousness that do not easily fit the physicalist paradigm.[44] Indeed, the established connections between religious experience and abnormal brain states positively encourage the idea that there exists some greater reality – Mind at Large, as Aldous Huxley termed it in *The Doors of Perception* – and that the brain partly functions as a 'reducing valve' that transforms it down to a level we can handle. Its functioning, clearly, can be compromised by various means – hallucinogens and fasting, for instance, or involuntarily through stress, heightened emotion, mental illness, fever, or for that matter, cardiac arrest and the temporary suspension of normal brain operations.[45]

Part of the same family as near-death and mystical experiences is that mediumistic activity known as 'channelling'. The claim is that discarnate entities communicate either by writing directly through the medium's hand or mind (a process known as automatic writing) or by taking possession of the medium's body in a trance state and speaking with her voice. The obscure metaphysics and flamboyant personages with silly names can make channelling hard to take seriously, but it really does not seem to be play-acting – at least not always. Automatic writing is an odd but verified phenomenon: in a relaxed state a person's hand may suddenly take on a life of its own and write religious, philosophical or artistic material at breakneck speed, which, when read back, may prove to be complex yet coherent, without relating in any way to the individual's habitual ideas, concerns and interests. Or else the writer records words and ideas that flood into her mind and which, again, appear to come from an external source.[46]

What's interesting about this is that, whether it's sober or fantastical, the material tends to be *didactic* – intended to positively influence readers' personal growth and development. The elements are fairly consistent. This world is said to be a sort of school which we are born into in order to have experiences, and to which we have to keep returning until certain lessons have been learned. The underlying moral message is constantly repeated. Look at what is wrong in your behaviour, and fix it. Be compassionate towards other people; forget about yourself. Don't waste time trying to make a fortune, or becoming famous, or seeking other people's approval. You can fulfil your intended purpose by living a modest or quiet life, by overcoming difficulties and challenges and serving other people. Control your thoughts and speech, and let no slander pass your lips. Curb your impatience. Start now.

10 *What does evolutionary psychology say?*

However sceptical we may be about religion there's a bottom line in this: a tendency to have these sorts of experiences is *part of the human condition.* Something happens to some people on rare occasions that causes them to see visions or to have insights about the nature of reality, the effect of which is to change behaviours, their own and other people's. I find this fascinating, and I want to know why it happens. And I'm puzzled that it holds so little interest for scientific commentators.

Scientists tend to see the origins of religion in errors of reasoning, and the idea of God as a pre-scientific, mystical explanation of the universe, now redundant since science performs that role far more effectively itself.[47] In this analysis, conscious self-awareness emerged in hominids as a side effect of the reasoning ability that evolved by

natural selection as an aid to survival. It was when humans started to become aware of the environment that they recognized the need for causal mechanisms, and to satisfy it they imagined gods, invisible beings who held up the sun, caused the thunder and made the crops grow, and so on.

This by now conventional thinking carries an advantage for scientists such as Richard Dawkins who are also campaigning atheists in that the error is potentially reversible: once humans recognize that it *is* an error they can put it right. That might be one reason why religious-type experiences tend to be overlooked: they complicate the atheistic view which to many people is both scientifically persuasive and morally preferable. In *The God Delusion*, Dawkins acknowledges that some people may be influenced by a personal revelation, but advises them not to expect anyone else to take their word for it who has 'the slightest familiarity with the brain and its powerful workings'.[48]

But that still leaves a rather large question unanswered – why *does* the brain do this? Why do these revelations occur? What is their source? I found it natural to start thinking in terms of some kind of evolutionary adaptation, and I could not understand why those Darwinist commentators such as Dawkins, Daniel Dennett and others who speculate creatively about the origins of religious belief are not more interested in this.

What evolutionary psychologists *have* done is develop theories to account for the development of a moral sense, and these are at least partly relevant. Why, they ask, if we are driven by our genes to compete with other people for resources in order to survive and procreate, are we nevertheless prepared to go out of our way to help them, for instance rushing to give money to earthquake victims? What is the origin of love, empathy and compassion, which religions consider so important?

As is well known, Darwinism supplies two main answers: *kin altruism,* where parents put their children's welfare first to promote

the survival of their own genes, and *reciprocal altruism* where help is offered to an unrelated member of the community on the basis that it will one day be returned, and thus benefit the giver.[49] Computer models have demonstrated that offering to co-operate is always the best strategy for personal success. The essential point is that this strategy will only work if individuals in a particular community are able to distinguish between those who keep their bargain, and are to be favoured in the future, and those who welsh on it and must be shunned. It was in evolving this psychological faculty that concepts of fairness and justice – the Golden Rule - came into being among the first humans. As they started to congregate in large groups, social and moral norms became codified in sacred texts, the origin of religious institutions whose essential purpose was to exert social control.

The secular argument then would be that there's a powerful imperative for humans to co-operate as a means to increase opportunities for survival and procreation, and that the command to do so is triggered by neurological events of various kinds. Those who experience it first hand become influencers through religions and the media, and it radiates through society by a memetic process.

It's a start, but it doesn't answer all my questions. Looked at closely, reciprocal altruism falls way short of the demands of religious teachers, whether of the traditional or the New Age variety. Jesus Christ, to take a prominent example, did not advocate a *quid pro quo* you-scratch-my-back type of morality, but a full-on, turn-the-other-cheek self-abnegation: 'give to everyone who asks you, and do not ask for your property back from the man who robs you.'[50] Such absolute selflessness could never be an effective survival strategy, since the giver gets nothing back and makes himself utterly vulnerable – surely not the kind of behaviour that would have been selected by any known evolutionary mechanism. The paradox we are left with is that an instruction which can potentially bubble up from the subconscious requires us to behave in a way that in superficial terms favours genetic continuity, but on closer examination is seen to be actually suicidal.

Perhaps we could argue for some kind of misfunction, as an evolutionist thinker might do in such circumstances. What motivates the saints, seers and prophets is an abnormally exaggerated form of what among the masses is merely an underlying tendency; such individuals should be viewed as freaks. They have experienced an overdose, as also happens sometimes to people whose brains are disturbed by fever, drugs, extreme physical effort or trauma. In other words, a tendency to extreme altruism is only *quantitatively* different from that self-interested altruism which humanity exhibits in general, not distinct in its underlying cause and nature. Perhaps, but for me this is just adding extra layers of speculation, and falls far short of an explanation of just what is occurring in the near-death experience.

11 *'When I was big'*

A complicating factor in much channelled material is the insistence on the reality of reincarnation. Life is not a one-shot affair, it is said, but something that we may experience many times. Some near-death experiencers report a sense of having lived before, and this also arises sometimes in mystical experiences or visions induced by hallucinogens. People very occasionally claim to remember incidents from what they take to be past lives, and surprisingly detailed and convincing memories can be elicited under hypnosis.

On its own, a mere sense of having lived before hardly constitutes evidence of that. Where it starts to get interesting is when the memories of a past life are found to correspond to facts that are later discovered, especially if it can be shown to be unlikely that the details might have been learned in normal ways. But it's difficult to establish this; cryptomnesia – the recall of information come across in the past, books read long ago, or long-forgotten facts – has been

demonstrated in some cases, and the epidemic of false memories of childhood sexual abuse in the 1980s was a disturbing reminder of the effects of suggestion. So it's always possible that memory recall, particularly under hypnosis, is some kind of fantasy projection.[51]

On the other hand, with very young children these alternatives are less probable, and there's a large research literature dealing with such cases. The children, as soon as they can speak, start talking about 'when I was big', and express an urgent desire to visit a husband or wife or parents or children in a distant town, any or all of which they may name. They may also talk about the house in which they used to live, their previous occupation, life circumstances and manner of death, which in a disproportionate number of cases they describe as having occurred by violence.

What makes this phenomenon so significant is that many of the statements can be verified: the family the children name may be found to be living in a house that corresponds to their description, and the person they claim to have been did recently die – details that ordinarily they could have no way of knowing. Researchers at the University of Virginia say they have a file of some two thousand seven hundred cases, many of them collected by Ian Stevenson, who worked as a professor of psychiatry there for many years and spent much time travelling in Asia, the Middle East and other parts of the world to investigate such claims.[52]

This 1988 case from Sri Lanka is typical.[53] At three years of age, a girl named Thusitha Silva began to talk about having been pushed into a river by a boy at a town called Kataragama; the boy was mute, she said. She identified her father in this previous life as a farmer named Rathu Herath; he owned a flower shop, was bald and wore a sarong (her present father wore trousers). These details gave a solid lead to the local investigator employed by Stevenson. There had been no attempt by the parents to follow them up and no prior contact between the two families to confuse the issue. Kataragama was over two hundred kilometres away, a small town consisting al-

most entirely of temples for pilgrims. After going there and asking around, the investigator was able quite quickly to find a flower seller named Rathu Herath who had a mute son. Yes, Herath said, as it happened he *had* once also had a daughter, but some years ago she had accidentally fallen into the river when playing with her brother, and drowned.

Ten of thirteen verifiable statements made by Thusitha corresponded accurately with this man's family. Within a few months the child had made a further seventeen statements, of which two were unverifiable but all the others were found to be correct for the family of the drowned girl.

Some of these statements were too general to be significant, such as the fact that the family's house had a thatched roof and that there were crocodiles in the river. But there were quite specific details that corresponded to the situation of the previous personality. For instance, Thusitha remembered dogs who were tied up and fed meat; this would have been unusual in a country where most dogs are strays, but it turned out the family had neighbours who hunted and who fed meat to a dog they kept chained in their yard. She was also able to describe some of the rituals carried out by worshipping pilgrims, such as smashing coconuts on the ground at the temple, which a child living in a distant village would not ever have witnessed.

Stevenson also argues that birthmarks and congenital defects can be occasionally associated with memories of violent death, and often correspond closely to the claimed manner of dying. In a typical example, a boy is born with a odd stippled brown mark across his throat, As soon as he starts to speak he describes having been murdered by having his throat cut.[54]

A Burmese case involved a child named Ma Win Tar who was born in 1962 with severe defects of both hands.[55] These led to the amputation of several fingers; other of her fingers were either missing or showed constriction rings, as if they had been bound by rope.

There was also a prominent ring around her left wrist that consisted of three separate depressions, which, again, looked like grooves made by a rope wound round the arm. All this became significant when, at age three the little girl started to talk, at which time she stated that she had been a Japanese soldier who had been captured by Burmese villagers, tied to a tree and burned alive. She gave no name, and no facts that could be verified. However her description corresponded to the fate of some Japanese soldiers in Burmese villages in the spring of 1945.

Ma was fervent in her insistence that she was Japanese, and regarded herself as a foreigner, which led to quarrels with her family. Her behaviour was unusual for a Burmese, but appropriate for the previous life she claimed to remember. She liked to dress as a boy, with short hair, shirts and trousers (Burmese boys, by contrast, normally start by wearing shorts, then graduate to the ankle-length garment known as a *longyi*). She complained too that Burmese food was too spicy, and showed a liking for sweet foods and pork.

Stevenson is particularly interested in the Igbo of Nigeria who believe in *ogbanje* or 'repeater babies' that die deliberately to torment their parents. Such babies may go on being born to the same parents and dying soon after, unless they are prevented from doing so. The Igbo believe they can discourage this by making some minor mutilation, like cutting off a portion of a finger.

This sounds like a rather abhorrent superstition yet, intriguingly, Stevenson says he has identified cases in which children are born with this type of defect that seems to correspond with something that was done to a previous baby that died in the family. The natural explanation for the defect would be sickle-cell anaemia, however Stevenson argues this is unlikely to explain the high incidence of it and its close relation to the mutilation practice.[56]

12 *Wilson et al vs Stevenson*

These claims brought Stevenson a lot of flak from sceptics, for whom reincarnation is no kind of explanation. How, they ask, can one take seriously the idea of continuing to live after death without brain or sense organs; of returning as a baby having previously lived to a mature age; and, as often appears to happen, choosing to be born in poor and overpopulated countries where life is likely to be wretched?

A common criticism is that Stevenson's cases are anecdotal, in the sense that the claims and the investigations of them have been completed long before he arrives on the scene. Shortcomings in his research methods and reasoning in a few individual cases are held to weaken the credibility of all the rest. There are also complaints about his apparent commitment to the reincarnation hypothesis, which might indicate that he is biased. It has been suggested that if one starts looking around for an individual whose life circumstances match those of another person, one will quickly find them.[57]

Fraud again is a popular explanation. In *Reincarnation? The Claims Investigated* (1981), British historian Ian Wilson takes the line that Stevenson was 'cruelly misled' by a series of 'tall stories and acting performances'.[58] Wilson notes that most of the memories are recalled by children in Asian countries like India where the culture accepts reincarnation, and thinks that their parents may have had a motive for perpetrating the hoax. After analysing the data Wilson concludes that the parents of the children claiming to have lived before were mostly in a lower socio-economic class than the families of the claimed previous personality, and they might therefore have hoped for some financial gain.

Wilson also criticizes Stevenson for failing to adequately consider alternative non-paranormal ideas. Perhaps there's such a thing as maternal impressions, where the fetus in some way absorbs some

of the mental imagery of the mother. He is concerned that there's no logical pattern in the data, for instance that it gives no guidance about the length of time between incarnations, which may be as long as five years or as little as two weeks. The data also show inconsistent patterns between cultures in terms of changing sex and the interval between lives. If reincarnation was a fact and not a fancy, he believes, memories of previous lives should display the same features across all cultures.

Similar ideas have been mooted by other critics.[59] For instance an alternative to outright fraud might be that an unconscious self-deception occurs, one that is moulded by cultural patterns. One could start with the possibility of cryptomnesia, the child's recall of information picked up from chance meetings with family acquaintances, for instance, or from visits by strangers in the parents' absence. In theory the child could then unconsciously select details of an overheard conversation, which is why they would later be found to correspond with actual events and people. Or else the parents might find significance in something the child says, and interpret it as a past-life memory. They might then seek out a family who they think fits the case; together the two families may embroider the statements in their own minds, perhaps encouraging the child to confirm their ideas by prompting it to recognize other individuals or people in photographs.

A quite different approach sees the child's memories as genuine but questions whether they originate with the child. One idea is that memories can be stored genetically and can in some circumstances be inherited. Or perhaps memories have a life of their own, explicable in some quasi-physical sense as enduring in the environment after their owner's death. Some commentators have talked of survival in terms of a 'psychic factor', a sort of lingering energy or particle field that the human organism might leave behind after dying. For instance it has been suggested that this field may become activated in the consciousness of a medium, giving rise to the appearance of

spirit communication.[60] Perhaps a newborn might be affected, at least temporarily, by such a field. The memories might take root in its mind and grow to the extent that the child would not be able to distinguish between them and his own experience. Only when he sees that they have no relevance to his actual circumstances would they start to fade. This field might even cause distinguishing marks, in the same way that a powerful hypnotic suggestion can cause burn marks to appear on a person's skin.[61]

13 *How conclusive are the criticisms?*

I too wondered about the inconsistencies in Stevenson's data. It is suspicious that apparent instances of rebirth in a particular country tend to take the form that is expected in that locality: some with gender changes between lives, some without; some with long gaps between incarnations, others with short gaps or none; a few born exclusively into the same family as the previous personality, but most to other families.

It is perhaps also a shortcoming that Stevenson tends to favour the reincarnation hypothesis, as it puts him at an automatic disadvantage when trying to convince his peers in the academic community. I didn't always agree with him about the significance of certain recollections, and in one or two cases I felt he exposed himself to criticism by unnecessarily convoluted reasoning.[62] I'd have to add that the idea of reincarnation, more than some other things we have been looking at, fills me with apprehension, as I think it does to many people, and I'd be relieved if I thought Stevenson's claims could be adequately explained away.

On the other hand Stevenson was no breathless New Ager: his approach conformed to conventional academic standards, being

full, detailed, and presented in a scholarly and unsensational manner. He worked by having colleagues on the spot, who could follow up reports that came in by word of mouth or press reports. The data consists of numerous interviews with the child, the child's parents, other family members, friends and neighbours; and then with the family and friends of the claimed previous personality. Where possible, the business of tracing the family of the previous personality was undertaken by the investigators themselves, before the pitch had been muddied. Stevenson was also quite cautious about drawing conclusions, properly stressing that reincarnation is the last hypothesis we should accept and only after we have eliminated all other possibilities. He discussed the major alternatives in relation to each case and did not ever claim that any case proves reincarnation. It's also the case that other researchers have replicated his findings.[63]

I agreed that Stevenson didn't pay much attention to some of the alternatives that critics like Wilson suggest, such as the ability of the fetus to absorb the mother's mental imagery. But then I reflected that he probably saw no point in advancing ideas which are as conceptually problematical as reincarnation itself; for which there's no independent evidence; and which could only apply in certain cases, in this instance those where the remembered events took place in the mother's vicinity. Much the same applies to the popular idea of genetic memory: you can talk plausibly about the possibility of memory traces being passed through DNA to surface in the infant's mind, as faint whispers and intimations of past events, a sense of *déjà vu* perhaps. But it's hard to see this as more than a very partial explanation, given that the dead person whose life the child appears to be recalling is rarely related to the child; that in many cases he or she died before reaching child-bearing age; and furthermore that the child may appear to have specific memories of an interlude between dying and being reborn.

The idea that the matches between the child's memories and the previous life of the person he or she claimed to be are very general,

and might emerge as soon as one starts looking for them, is exactly what might suppose – but only if one doesn't bother to look closely at the research. Take the case of Sunil Dutt Saxena in Stevenson's Indian collection. When Sunil started to speak he mentioned that he had been married, and named the town where he previously lived. In his statements, the previous personality emerged as affluent, with a big house, servants, and what in those days were luxury items such as a fridge and a radio. This is all pretty general stuff. He further claimed to have owned a factory and to have been married four times, which narrows it down a bit. But he also talked of having founded a college named after himself, and identified the principal, who he said had been one of his best friends – the sort of detail which is too exact to apply to more than one person. As it happens all these details – the general, not so general, and the very specific ones – did in fact apply to a deceased individual in the town who Sunil named.[64] In the same volume, there is the case of Jagdish Chandra, who at age three talked of having lived a previous life, and among other things mentioned the names of the former personality's father and brother. He stated that the brother had died of poisoning, and identified the exact location of a safe where the father kept his cash – again, these details were all traced to a person who was recently deceased.[65]

Looking closely at scores of reports of this kind, and bearing in mind the quantity and specificity of the matching details, it was hard to see it as an artefact of over-eager researchers. If it was false it would be much more likely to be a deliberate fraud. But it struck me that the critics are pretty casual in imputing various motives and abilities to infants. The memories typically start to become apparent as soon as the child can talk, which can be as early as eighteen months. It's not obvious to me that very young children, at least up until the age of three or four, might consider it in their interests to abandon their mummy and daddy and go to live with strangers. Infants are not going to know that other people have a different or a better life, and are not able to conceptualize what this might be,

let alone know how to achieve it for themselves. One might protest that, on the contrary, many of the children in Stevenson's cases had a very clear idea of a better life compared to their present reduced circumstances, but that's surely the anomaly that has to be explained.

If the deception is the parents' idea, they are obviously going to have to drill the child to deceive investigators. But having experience of small children I found this rather hard to imagine:

> *Father*: Now listen Shreya, when a man comes and asks questions you must say that your name is Thusitha and that you come from Katagarama.
>
> *Child*: But I am Shreya Daddy.
>
> *Father*: Yes, I know my child, but to this man I want you to say it's Thusitha.
>
> *Child*: Why Daddy?
>
> *Father*: Because if you do I will give you a biscuit. Now will you try? We will practise one time. Imagine I am the stranger. Now. What is your name?
>
> *Child*: My. Name. Is. Shreya.
>
> *Father*: No no, I am the stranger and you are to say 'I am Thusitha'. Now try again.
>
> *Child*: But you are not the stranger you are Daddy.

And the children do not just casually mention details of this kind; Stevenson says he was startled by the actual behaviour they often showed, weeping as they talked about a previous life or angrily denouncing the murderers who ended it. A pretence of this depth in an infant is surely rather unlikely. So too, one might say, is reincarnation, but that doesn't resolve the problem. Still, let's suppose that if the parents have a toddler with the appropriate talent, they can get it up to the required level. We then encounter a curious problem. Why is this charade being acted, and what do the parents expect to get out of it?

The fraud idea involves Western stereotypes about stupid, grasping peasants, which anyone with a knowledge of the developing world will consider questionable, to put it mildly. Indian villagers do not find it funny or cute when their three-year-old says things like, 'This house is dirty, I'm getting out of here' or compares their cooking unfavourably with that of another mummy. They won't think it quaint or interesting or to their financial advantage if, as sometimes happens, the child starts to accuse local people of having murdered the person he remembers having been. And while reincarnation is widely believed it's far from universally welcomed: claims that involve a change of religion, sex or caste are greatly disliked, as one might expect.

Nor is the economic motive as obvious as the critics think. Later and larger samples than Wilson's don't support the idea that claims of a previous life are connected with hopes for material advantage: in nearly half of one group of seventy-nine Indian cases the previous personality belonged to a lower socioeconomic class, sometimes living in wretched circumstances, while for a third of cases there was no change. Only a minority showed any upward movement and in many cases it was not enough to constitute evidence of greed.[66] Taken all together it's not surprising that studies show couples taking steps to suppress their child's past-life memories, beating him or, if they have the money, taking him to consult a psychiatrist.[67]

Might the motive for the deceit be found among the relatives of the previous personality? Perhaps, but then how would they have gained sufficient access to another family's child to set the trick up? These are rarely close neighbours, and typically they are in distant locations. Conversely, if the claim originates with the child's parents, it's by no means the case that the target family is going to be particularly motivated to foster the child; in fact, they are the first to suspect fraud. The very least they are going to do is test the child, which in documented cases they do thoroughly, observing his or her reactions and ability to recognize relevant people in person or in photo-

graphs. The fact that the child may have highly accurate knowledge of the intimate details of the family history and may correctly identify people that he or she could never have seen before, often using intimate pet names, is what convinces them. But what then? Even if, as often happens, the relations of the previous personality eventually accept the truth of the claim, they are not getting their loved one back; he or she is still in the body of someone else's child in another village, or even another part of the country altogether, and has embarked on a different life, one in which they are not involved.

Returning one more time to cryptomnesia, it's questionable on close examination whether a convincing case could be built on a few details that were heard once or twice. The child's story typically involves descriptions of people and places, names, relationships and incidents that would require a good deal of exposure to some rather obvious source of information. Yet these sources are looked for by investigators and on the whole they are not found. Also self-deception doesn't go far in explaining veridical details of events and affairs which, it can be demonstrated, are not known to the parents and which they couldn't reasonably be expected to know, but which can nevertheless be checked and found to be accurate. This would apply to cases such as that of the drowned girl Thusitha, where investigators reach the scene before the parents have a chance to check out the child's statements themselves, and where the two localities are too far apart for any subliminal information channel to exist. Finally, self-deception doesn't fully explain the phobias – of water, fire or weapons, and so on – that match the nature of the death of the supposed previous personality, for instance drowning, murder or death in battle.

In making these reflections I was influenced, as elsewhere, by the rough and ready nature of the critics' arguments. Some, like Wilson, had clearly given some thought to the problem, but others equally obviously had not. Terence Hines, for instance, says Stevenson's methods are inadequate for ruling out 'simple imaginative sto-

ry-telling', a pretty sure sign that he hasn't actually read the research, or at least is relying on the fact that his readers have not.[68] And here too, objections are chucked at the problem with little regard for consistency: the same people who denounce the investigators as fools for believing the frivolous claims of greedy villagers can later be found speculating in terms of particle physics to explain what they now seem to be treating as a genuinely anomalous memory transfer.

14 *Is this our destiny?*

As I say, not being personally at all comfortable about the idea of being born again, I would be relieved if these claims turned out to be mistaken. There's something disturbing about these young boys and girls being haunted by the memory of the people they used to be, and the lives they made for themselves – the men and women they loved, the children they parented, the money and status they acquired – finding themselves about to go through the same thing all over again. Is this humans' true destiny. Could it happen to *us*?

The problem is how to explain it away. Finding fault with Stevenson does it for some people, I have noticed, but it doesn't work for me. His methods were not above reproach, but he was generally conscientious and aware of the potential pitfalls, and other researchers have been gathering exactly the same kind of data. The children's statements are too insistent and particular, and correspond too closely with the reality, to be shrugged off, and critics have offered no convincing model based on fraud or error. And the sheer quantity of this data is also extraordinary. If it were just a matter of one or two cases one would be bound to dismiss it as an oddity. But as with many of the topics I have talked about, it's the accumulated effect of reading several scores of documented cases – and knowing that there are several hundreds more of comparable quality in

a database of nearly three thousand general cases of the kind – that creates the impression of a genuine and hitherto unacknowledged phenomenon, whatever its true cause.

Some sceptics are reassured by the fact that the data applies predominantly to countries and cultures that believe in reincarnation. We all die, the reasoning goes, and if reincarnation is a fact then we are all reborn, in which case there would be an equal number of cases in the US and Europe. The fact that countries with a Christian heritage don't produce these cases is a strong indication that the phenomenon is a cultural artefact. And why would cases of rebirth correspond to the *beliefs* about rebirth in a particular country if it were not an effect of the imagination?

Against this, it is becoming increasingly clear that children in the West *do* occasionally have these sorts of memories, and if the phenomenon has taken much longer to surface it's perhaps because there's no cultural acceptance of reincarnation, so no context for the memories to take hold in the public consciousness. Crisis apparitions and near-death experiences were widely experienced before active research made them known, and something of the kind may also be the case here. What is different about Western cases is that the children's memories, although surprisingly accurate as regards historical details they could not be expected to know anything about – a two-year-old describing details from the Pacific War in 1944–45, for instance[69] – are far less frequently traced to identifiable individuals.

There is in fact another, perhaps rather surprising, way of accounting for the differences between different cultures, and also for that matter, those that arise in the near-death experience. However this will need to wait until we have put everything into a larger context and tried to determine what we make of it all – the subject of the next and final chapter.