Chapter Fourteen

Stop, look and listen!

Vision, hearing and human movement

On hearing sounds, and seeing things

Near the house where I grew up was a path I often took, which crossed a railway line. Beside the track was a notice which advised the pedestrian to 'stop, look and listen' before attempting to cross the line. I may not always have followed this advice as closely as I should, but at least I knew what it meant. To me, as doubtless to others who walked that path, it made perfectly good sense. In the absence of automatic signalling arrangements, how else is one to know whether a train is coming save by looking and listening? Only later did I discover that what is obvious to pedestrians is, to philosophers, utterly baffling. To be sure, the philosopher might admit, our knowledge of the world can only come through some form of perception. Yet it seems that the one thing we cannot perceive is perception itself. You may claim to see a train, but only by way of the light that reaches your eyes. And you hear it only by way of the sound that reaches your ears. So how can you know that the train exists at a certain distance, as a detached material object, behind the perceptual images, shaped in light and sound, that you have of it? And if it exists only in your perception – in your eyes and ears, or even in your thoughts – then how can it run you down? Nor is that all. Looking and listening, we receive one set of sensations through the eyes, and another, quite different set through the ears. Supposing that our knowledge is ultimately founded on sensory experience, how do we know that the sights and sounds that come to our notice are all manifestations of the same thing, the train, that is bearing down on us? If we hear sounds rather than things (like trains), then how do I know that *this* sound I hear belongs to *that* train I see?

These are among the most ancient of philosophical conundrums, and it is not my intention to resolve them here. I do mean to suggest, however, that the way in which they are posed bears the imprint of a certain way of imagining the human subject – namely, as a seat of awareness, bounded by the skin, and set over against the world – that is deeply sedimented in the Western tradition of thought. The problem of perception, thus, is one of how anything can be translated or 'cross over' from the outside to the inside, from the macrocosm of the world to the microcosm of the mind. This is why visual and aural perception are usually described, in the writings of philosophers and psychologists, as processes of *seeing* and *hearing*. Sight begins at the point where light enters the eyes of the stationary perceiver, hearing at the point where sound strikes his ears – at the interface, in short, between outside and inside. Yet the notice beside the railway tracks did not advise the pedestrian to 'stand, see and hear'. It advised him to 'stop, look and listen': that is, to interrupt one bodily activity, of walking, and to initiate another, of looking-and-listening (as I show later, these are better regarded as aspects of one activity than as two distinct

activities). In what, then, does this activity consist? Not in opening the eyes, since these are open anyway; nor in opening the ears, since they cannot be closed save by stopping them with the fingers. It consists, rather, in a kind of scanning movement, accomplished by the whole body – albeit from a fixed location – and which both seeks out, and responds to, modulations or inflections in the environment to which it is attuned. As such, perception is not an 'inside-the head' operation, performed upon the raw material of sensation, but takes place in circuits that cross-cut the boundaries between brain, body and world.

But I am running ahead of myself. There is much ground to be cleared before the idea of perception outlined above can be substantiated. To begin this clearance we need to inquire more closely into the assumptions we tend to make about our experiences of seeing and hearing. You can attempt to find out what these are by performing a simple thought experiment. Suppose you are standing beside the tracks as a train is passing. You see the locomotive and the coaches hurtling by, you hear the roar of the engine followed by the clickety-clack of bogies as they roll over joints in the rail. These sights and sounds are ordinarily so entangled in your experience that it is not easy to tell them apart, to imagine what the train would look like without the noise it makes, or what it would sound like without the appearance it presents. But you could try, nevertheless. Picture yourself blindfolded, or on a pitch dark night, such that the visual component of experience is eliminated. The sound of the approaching train, as it swells, seems to assault and ultimately to overwhelm every fibre of your being. You cannot resist being swept along with it until eventually, as the train recedes into the distance, you are left stranded by the trackside, breathless and dizzy, in exactly the same spot where, in truth, you had been standing all along! But now, as a second experiment, picture yourself with your ears stopped, so as to cut out the auditory component of experience. This time the train appears to pass before your eyes as though it were a spectre whose very existence lies in dimensions other than those of the world to which you belong. You see it, you register its presence and its passing, but you are not *moved* by it. The vision is just another sighting to add to your collection.

If the results of these admittedly fictitious experiments have any validity, they suggest that far from being equivalent and mutually substitutable, vision and hearing are radically opposed, as different as is standing on the river bank, watching the water flow by, from being tossed in with the current. As a participant observer in the event constituted by the train's passing the spot where you stand, at the intersection of the path and the tracks, it would seem that whereas you participate aurally, you observe visually. Indeed the notion that sound can get inside you and shake you up, in a way that light cannot, has a long and distinguished pedigree in the history of ideas. Time and again, the ears are imagined topologically as openings in the head that actually allow the sound to seep in and touch the innermost surfaces of being. The eyes, by contrast, are supposed to be backed by screens that let no light through, leaving the mind in the dark – like the inhabitants, in Plato's celebrated allegory, of a cave who can see nothing but shadows on the walls cast by the light of their own fire. Sound, it is said, reaches directly into the soul, whereas in vision all one can do is reconstruct a picture of what the outside world might be like, on the basis of light-induced sensations. But by the same token, we are more readily convinced that we hear sound than that we see light. The objects of vision, we suppose, are not sources or manifestations of light but the *things* that light illuminates for us. The objects of hearing, on the other hand, are not things but sounds or sources of sound.[1]

True, there have been dissenting voices. One of them was Martin Heidegger. In his essay on 'The origin of the work of art', Heidegger argued that only when we divert our

attention away from things, or listen abstractly (as we might, say, to classical music, with our eyes closed), do we hear 'bare sound'. In ordinary life, he insisted, we do not hear sounds but things themselves – the door shutting in the house, the storm in the chimney, the Mercedes as distinct from the Volkswagen (Heidegger 1971: 26). So too, Heidegger would have said, we hear the train before the noise it makes. But this view is not easily reconciled with everyday experience. For what we claim to hear, at least when we speak of these matters, is the slamming of the door, the whistling of the wind, the humming or chugging of the car engine, and the roar of the locomotive. Slamming, whistling, humming, and so on are words that describe not things but actions or movements which, because of the vibrations they set up, we actually sense as noises of various kinds. Or to take another example, consider the word 'cuckoo'. This is, in the first place, an onomatopoeic rendering of a sound that I have often heard in the countryside, and which always seems to emanate from a far-off, undisclosed location in the woods. We say the cuckoo is a bird, but in my experience the bird exists, purely and simply, as its sound. I have never seen one (except in illustrated books on ornithology). But only through being seen does the cuckoo come to be apprehended as a thing that makes a sound, instead of the sound itself.[2]

In due course I shall proceed to qualify the idea that we see things before light, and hear sound before things. I shall do so by showing that sound, strictly speaking, is no more an object of hearing than is light an object of vision. Rather, just as to say there is light is another way of saying that one can see, so also, to say there is sound is another way of saying that one can hear. Light and sound are, in essence, the undersides of the experiences of seeing and hearing respectively. Now as blind people are able to tell us, it is in fact possible to hear things as well as to see them. And for sighted people, the eyes are as much a part of the perceptual system for listening as are the ears part of the system for looking. To that extent, vision and hearing are not so much disparate as interchangeable. But behind the discovery, whether visual or auditory, of a world already made there lies a deeper, pre-objective level of perception, a level at which sensory awareness rides on the cusp of the very movement of the world's coming-into-being. At this level, as I shall show, the experiences of vision and hearing are not mutually substitutable in the way that – for example – the signed language of the deaf is substitutable for oral speech. Instead, they are virtually indistinguishable: vision *is* a kind of hearing, and vice versa. This argument eventually leads me to reject the thesis that attributes the dominance of objective thinking in the West to an obsession with the eye. For the moment, however, let me continue with the contrast between seeing and hearing, as this is commonly understood, in order to examine its implications for our understanding, first, of persons and things; secondly, of language, speech and writing; and thirdly, of the sensory practices of people in non-Western societies.

Vision objectifies, sound personifies

Of all the implications of the contrast between vision and hearing, the most consequential has been the notion that vision, since it is untainted by the subjective experience of light, yields a knowledge of the outside world that is rational, detached, analytical and atomistic. Hearing, on the other hand, since it rests on the immediate experience of sound, is said to draw the world into the perceiver, yielding a kind of knowledge that is intuitive, engaged, synthetic and holistic. For those who would celebrate positive scientific inquiry as the crowning achievement of the human spirit, vision is undoubtedly the

superior sense. Yet for all that, it is not to be trusted. The visual path to objective truth, it seems, is paved with illusions. Precisely because vision yields a knowledge that is indirect, based on conjecture from the limited data available in the light, it can never be more than provisional, open to further testing and the possibility of empirical refutation.[3] But while we can never be certain of what we see, there is no doubt about what we hear. Since sound speaks to us directly, hearing does not lie. We do not suffer from aural as we do from optical illusions (Rée 1999: 46). In short, when it comes to affairs of the soul, of emotion and feeling, or of the 'inwardness' of life, hearing surpasses seeing as understanding goes beyond knowledge, and as faith transcends reason.

Nothing better illustrates these attitudes to vision and hearing, so deeply embedded in Western sensibilities, than these lines from the 'Foreword' to Victor Zuckerkandl's classic study of musical perception, *Sound and Symbol*. Here he is comparing the demeanour of the blind and the deaf:

> The quietness, the equanimity, the trust, one might almost say the piety, so often found in the blind are in strange contrast to the irritability and suspicion encountered among so many of the deaf . . . It seems as if, by the very fact that the blind man trusts himself to the guidance of the ear instead of the eye, other modes of connection with the world are revealed to him, modes that are otherwise overshadowed by the dominance of the eye – as if, in the realms with which he thus comes into contact, man were less alone, better provided for, more at home, than in the world of visible things to which the deaf man is directed and to which an element of foreignness always clings.
>
> (1956: 3)

As a stereotypic depiction of the behaviour of blind and deaf people this passage is, of course, outrageous. It says much, however, about how we are inclined to view hearing as warm, connecting and sympathetic; and sight as cold, distancing and unfeeling. No wonder, then, that numerous commentators have sought to lay the ills of modern Western civilisation at the door of its alleged obsession with vision (Jay 1993a, Levin 1988, 1993). More than any other modality of perception, they say, vision leads us to objectify our environment, to regard it as a repository of things, alien to our subjective selves, that are there to be seized by the eyes, analysed by science, exploited by technology, and dominated by power. If only we could redress the balance by restoring hearing to its proper place in the sensorium, it is claimed, we might hope to regain a more harmonious, benevolent and empathetic awareness of our surroundings. Then, perhaps, we may rediscover what it means to *belong*.[4]

These laments are not new; to the contrary, the denigration of vision is as ancient as is its elevation to the top of the hierarchy of the senses. As Don Ihde points out, in his study of the phenomenology of sound, 'there is an old and deeply held tradition that vision "objectifies", and, contrarily but not so widely noted, there is a tradition which holds that sound "personifies"' (Ihde 1976: 21). To this latter tradition belong the claims of many classical scholars that the very word, 'person', is derived from the Latin verb *personare*, meaning literally 'to sound through'. Whether the derivation is etymologically well founded need not concern us;[5] what count are rather the reasons that make it so compelling. These, I contend, lie in its concordance with a widely held notion that behind the visible aspect of the person, above all the face, lies an inner being that reveals itself through the voice. In speaking, the voice 'sounds through' from the inside to the outside; in hearing it conversely penetrates from the outside to the inside. Where vision places us

vis-à-vis one another, 'face-to-face', leaving each of us to construct an inner representation of the other's mental state on the basis of our observations of outward appearance, voice and hearing establish the possibility of genuine intersubjectivity, of a participatory communion of self and other through shared immersion in the stream of sound. Vision, in this conception, defines the self individually in *opposition* to others; hearing defines the self socially in *relation* to others.

The written word and the sounds of speech

Nowhere is the ambivalence surrounding attitudes to vision and hearing more evident than in Western ideas about language, and above all about the distinction between speech and writing. The distrust of writing is a recurrent theme throughout the history of Western thought. Ever since Plato and Aristotle, philosophers have tended to regard writing as an exterior, visible facade for the inner sonic reality of spoken words. Plato, in the *Phaedrus* (274–7), has Socrates declare that writing provides no more than 'the appearance and not the reality of wisdom' (Plato 1973). For Aristotle, only the spoken word truly represents mental experience, while the written word stands for the spoken one (Aristotle 1938: 115). Rousseau, for whom writing was 'nothing but the representation of speech', complained bitterly (in writing of course) about the prestige and attention accorded by his contemporaries to writing when it was no more than a contrived and inauthentic cover for the real thing (Derrida 1974: 36). And two of the giants of twentieth-century linguistics held to much the same opinion. For Bloomfield (1933: 21) writing was 'merely a way of recording language by visible marks', while according to Saussure (1959: 23), 'language and writing are two distinct systems of signs; the second exists for the sole purpose of representing the first'. In a famous image (Figure 14.1), Saussure located language at the interface between thought and sound, as though human consciousness – the realm of ideas – hovered over an ocean of sound like air over water (1959: 112).

There is, in all these pronouncements, an implicit prioritisation of hearing over vision, as though the former gave access to intimacies of human experience to which the latter could only offer a pale reflection. 'The only true bond', as Saussure wrote, is 'the bond of sound' (1959: 25).[6] Ironically, however, at the very same time that writing is rendered as having no other purpose than the modelling of speech in a visible medium, the apprehension of speech is itself modelled on the inspection of the written word. Thus a visual bias

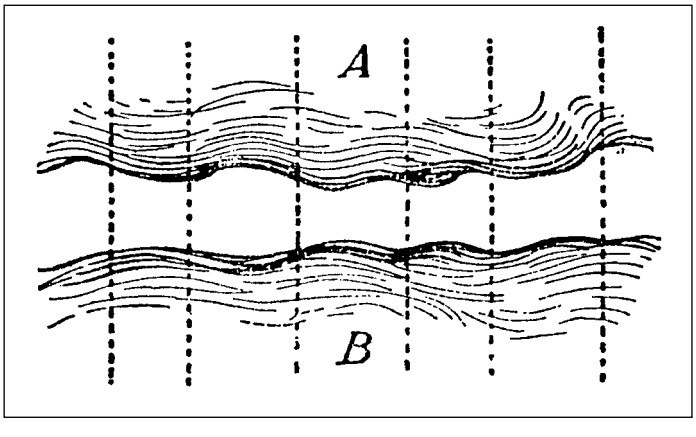

Figure 14.1 Saussure's depiction of language at the interface between a plane of thought (A) and a plane of sound (B). The role of language is to cut the interface into subdivisions, as indicated by the vertical dashed lines, thereby establishing a series of relations between particular ideas and particular sounds. 'Visualize the air in contact with a sheet of water', says Saussure; 'if the atmospheric pressure changes, the surface of the water will be broken up into a series of divisions, waves; the waves resemble the union of thought with phonic substance'.

From F. de Saussure, *Course in general linguistics*, New York: The Philosophical Library, 1959, p. 112.

enters, as it were by the back door, into our very notion of what language *is*. Recall that the underlying assumption, shared by both champions of visual perception and their critics, is that we do not see light but the objects it illuminates. You may not be able to read, for example, without a source of illumination, but what you see is not the light but the words on the page. Likewise, you cannot hear speech unless it is voiced in sound. However your familiarity with the written word leads you to believe that what you hear is not the sound itself but the words shaped in it. 'Language-as-word', as Ihde notes, 'even while sounding, does not draw attention to itself *as* sound' (1976: 161). Rather, the sound 'yields up' or delivers the words we claim to hear. Thus it is supposed that words can be extracted from the medium of sound, and can be preserved, whether as impressions in the mind or as inscriptions on the page, independently of their sounding.

Language, it seems, is the exception that proves the rule that we see things (not light), and hear sounds (not things). When we listen to music, we attend to the sound *as such*, for it is surely in the sound, no more and no less, that the music consists. But when it comes to speech, we are inclined to treat hearing as a species of vision – a kind of seeing with the ear, or 'earsight' – that reacts to sound in the same way that eyesight reacts to light. Thus we are convinced that we apprehend words, not sound. It is almost as though the sounds of speech were seen rather than heard. This, of course, is exactly what Saussure had in mind when he described the verbal signifier – the pattern of sound as registered in the psyche – as a *sound-image* (1959: 66). So far as he was concerned, we recognise a word of speech in the same way that we do a word of writing, by matching the perceived pattern to a pre-existing mental schema. But what if we had never seen a word, if we had no notion of a word as an object of vision? Granted that our familiarity with writing leads us to model the hearing of the spoken word upon the sight of the written one, how might the power of speech have been experienced by people with no knowledge of writing, or for whom the written word was meant to be disseminated, at most, through being read aloud rather than through its reproduction in print?

In his influential study, *The Gutenberg Galaxy*, Marshall McLuhan (1962) argued that the invention of the printing press ushered in an entirely new era in the history of human culture, marked by the absolute dominance of the eye, and with it a bias towards a way of thinking that is objective and analytic, and that follows a linear path of explicit logical connections. Even before the introduction of print technology, during the preceding 'chirographic' stage of culture, the substitution of written for spoken words had begun to tip the balance between sight and hearing in favour of the former. But among peoples at an 'oral-aural' level of culture, to whom writing was unknown, the ear exercised an overwhelming tyranny over the eye (McLuhan 1962: 28). And so too, McLuhan maintained, their thought lacked the logical elaboration, analytic discrimination and objectivity that, in the literate West, are normally considered to be the hallmarks of rationality. Building on these ideas, one of McLuhan's associates, Walter Ong, sought to derive all the essential characteristics of 'orally based thought and expression' from the features that distinguish hearing from vision. Oral culture, he claimed, is aggregating, harmonic and holistic rather than dissecting, analytic and atomistic; concrete and situationally specific rather than abstract and context-independent; and focused on persons rather than things. Hearing binds people together in community; vision isolates the individual *vis-à-vis* the world. Finally, 'the interiorizing force of the oral word relates in a special way to the sacral, to the ultimate concerns of existence'. With the ascendancy of vision, however, religion gives way to secular science (Ong 1982: 73–4).

In their placing of oral cultures and literate civilisations on either side of a 'great divide', both McLuhan and Ong effectively reproduced a dichotomy between oral participation and visual observation that, as I have already shown, is deeply embedded within the Western tradition. Thus sound, according to Ong, registers the interiority of things in a way that is impossible with light, which merely reflects off their outer surfaces. The following passage is exemplary:

> Sight isolates, sound incorporates. Whereas sight situates the observer outside what he views, at a distance, sound pours into the hearer . . . Vision comes to a human being from one direction at a time . . . When I hear, however, I gather sound from every direction at once: I am at the center of my auditory world, which envelops me, establishing me at a kind of core of sensation and existence . . . You can immerse yourself in hearing, in sound. There is no way to immerse yourself similarly in sight.
>
> (Ong 1982: 72)

It is in his contention that the listener in a 'primarily oral' culture hears words *as sound*, rather than as images shaped in sound, that Ong takes issue with Saussure (1982: 17). People in such a culture, 'totally untouched by any knowledge of writing or print', do not hear words as if they were looking at them. In their speech, every word is a fugitive movement carried on the crest of a sound that 'exists only when it is going out of existence'. It was writing, Ong contends, that tied words down and made them appear thing-like, as 'quiescent objects . . . for assimilation by vision' (1982: 91). Thus writing transforms the word rather than, as Saussure thought, merely representing it in an alternative medium.

Vision and hearing in anthropology

Another of McLuhan's collaborators was the anthropologist Edmund Carpenter. Writing on the basis of fieldwork conducted among the Aivilik Eskimo (Inuit) of Southampton Island in the Canadian arctic, Carpenter claimed that the world of the Inuit is defined, above all, by sound rather than by sight (Carpenter 1973: 33). To inhabit such a world is not to look out upon a space of ready-made objects, but to participate from the inside in the perpetual movement of their generation. There are, strictly speaking, no things in the Inuit world, only beings, which establish their presence, first and foremost, by way of their ongoing actions. Hearing is the resonant coupling of these actions with the movement of the listener's attention. Thus Inuit hear sound rather than things, and are moved by the sound itself, as they are by song. Indeed the distinction between speech and song, so central to the literate conception of language, would make no sense to them (Carpenter 1966: 212; I return to this distinction in Chapter Twenty-three, pp. 407–10). Speaking and singing are actions which, like hunting or carving, 'bring out' or release aspects of being into the fullness of the acoustic space surrounding the person. Unlike the framed, pictorial space surveyed by the eye, acoustic space is 'dynamic, always in flux, creating its own dimensions moment by moment' (1973: 35, see also Carpenter and McLuhan 1960). Its form – as we recall from Chapter Twelve (pp. 210–11) – is that of a sphere, extending outwards from the person equally in all directions. But this sphere has no outer surface or boundary: it does not pre-exist and enclose the speaker and listener but rather takes shape around them in the very process of their auditory engagement with one another and with the environment.

Between them, McLuhan, Carpenter and Ong effectively laid the foundations for a currently vibrant field of inquiry that has come to be known as the anthropology of the senses (Stoller 1989, Howes 1991a, Classen 1993, 1997). It is true that certain aspects of their programme have come in for justified criticism from anthropological quarters: the attribution of pre-logical mentalities to 'tribal' societies at the oral-aural level, the relative neglect of other sensory modalities besides sight and hearing, and the consequent elision of differences among cultures on either side of the 'great divide' between orality and literacy (Howes 1991b: 172–3, Classen 1997: 403–4). However the basic idea, that cultures can be compared in terms of the relative weighting of the senses through which people perceive the world around them, has been retained. Thus it is not so much in *what* they perceive as in *how* they perceive that cultures differ. It will no longer do to identify cultural variations with alternative worldviews, as though everyone perceived their surroundings in the same way (visually, by viewing it) but saw different things on account of their drawing on different models for organising the data of perception into representations. For the very idea that the world is known by representing it in the mind is bound up with assumptions about the pre-eminence of vision that are not applicable cross-culturally. Below I briefly review three studies in the anthropology of the senses, all of which accord particular prominence to hearing. The first, by Paul Stoller, is of the Songhay of Niger, in West Africa; the second, by Anthony Seeger, is of the Suyá of Mato Grosso, Brazil; and the third, by Alfred Gell, is of the Umeda of Papua New Guinea.

For the Songhay, Stoller asserts, sound 'is a foundation of experience'. Unlike vision, which sets up a distance between the spectator and the object seen, sound 'penetrates the individual and creates a sense of communication and participation' (1989: 103, 120). To show how this is so, Stoller examines the significance that Songhay attach to the sounds of two kinds of musical instruments – the *godji* (monochord violin) and *gasi* (gourd drum) – both played during possession ceremonies, of the praise-poetry that accompanies these ceremonies, and of words spoken in sorcery. The *godji* produces a high-pitched cry, whereas the *gasi*, depending on how it is beaten, produces a 'clack' or a 'roll'. Both people and spirits are excited by these sounds, finding them irresistible. Indeed for the Songhay, the cries of the violin, and the clacks and rolls of the drum, *are* the voices of spirits that, in rituals of possession, penetrate and shake up the bodies of those possessed. And while the instruments are sounding, the praise-singer (*sorko*) recites the names of the spirits, shouting them directly into the ears of the intended medium. The sonic force of the shout affects the medium's body much as wind affects fire, igniting it into paroxysms that indicate the onset of possession (Stoller 1989: 108–12). In sorcery, too, it is the actual sound of the magical incantation that powerfully works its effects, whether for good or ill, on the body of the victim or patient. The magical word *is* sound, which exists (and goes out of existence) in the act of its enunciation. As such, it is a phenomenon of the same order as the cry, clack or roll of the musical instrument, or the shout of the praise-singer. In every case it is the sound itself that people hear, and to which they respond. This sound is supposed to have an existence of its own, 'separate from the domains of human, animal and plant life' (1989: 112).

Among the Suyá, according to Seeger, the faculty of hearing is valued very highly, as are the complementary faculties of speech and song. Speech is distinguished from song in Suyá classification, not however in terms of the detachment of words from sound, but as poles on a continuum of alternative combinations of 'phonetics, text, time, tone and timbre' (Seeger 1987: 46, 51). The significance accorded to hearing, as well as to speech and song, is highlighted through the massive expansion of the earlobes and (for men) the

lower lips, into which are inserted large discs of wood or rolled palm leaf. The word *ku-mba*, in the Suyá language, translates not only as 'to hear' but also as 'to understand' and 'to know'. It is the ability to 'hear-understand-know' well that defines the person as a fully social being. And where we might describe the memory even of spoken words in visual terms, as images in the mind, Suyá describe even a visual phenomenon such as a weaving pattern, that has been learned and remembered, as lodged in the ear (Seeger 1975: 213–14). The sense of sight, to the contrary, is associated in Suyá thinking with morally delinquent, anti-social tendencies. A person possessed of extraordinary powers of hearing is a paragon of virtue, but someone with extraordinary vision is a witch. The witch sees everything – his is a transparent world that offers no barriers to sight. 'He can look up and see the village of the dead in the sky; he can look down and see the fires of the people who live under the earth; and he can look around and see enemy Indians in their own villages far away' (1975: 216). In their elaboration of hearing as the morally superior sense, and their distrust and fear of people with vision, Suyá seem to establish 'some kind of opposition between vision and social virtue' which, Seeger suggests, may have resonances elsewhere – even in the traditions of the West (1975: 222).

The Umeda, like many other peoples of Papua New Guinea, inhabit an environment of dense, and virtually unbroken forest, in which things are visible only at close range, normally within a few tens of metres. Such an environment, Gell argues, 'imposes a reorganisation of sensibility', giving pride of place to hearing, along with smell (Gell 1995: 235). Thus out hunting, Umeda walk with their eyes to the ground, listening for game instead of looking for it, since it is by their sounds that animals announce their existence and presence in the world of the hunter. This is not a world of preconstituted, visual-spatial objects but is rather apprehended dynamically. Not only animals and plants, but also landscape features such as ridges, knolls and pools, are grasped in the first place as movements rather than static forms. Alert to these movements, the body resonates rather like a sounding cavity, and responds in kind through its own activity of speech (1995: 240). Thus the sound of the spoken word echoes to the movement of the being or feature in the environment to which it corresponds, giving rise to the 'phonological iconism' which, as Gell shows, is such a pronounced feature of the Umeda language. Through their speech, Umeda do not point to and label things in the world 'out there', but continually bring the world into being around themselves, even as they are continually brought into being through their own immersion in an ambience of sound. But Gell goes further, to propose that the predominance of hearing over seeing leads to a 'bias towards the expression of sympathy towards community members' (1995: 235). The 'auditory' culture of the Umeda, Gell claims, is a 'culture of sympathy'.

The anthropology of the senses: a first critique

What is so striking about the studies reviewed above is that in all three, a radical contrast is established between hearing and vision along lines which, as we have seen, are already sharply drawn within the Western tradition. Among the criteria of distinction, to recapitulate, are that sound penetrates whereas sight isolates, that what we hear are sounds that fill the space around us whereas what we see are things abstracted or 'cut out' from the space before us, that the body responds to sound like a resonant cavity and to light like a reflecting screen, that the auditory world is dynamic and the visual world static, that to hear is to participate whereas to see is to observe from a distance, that hearing is social whereas vision is asocial or individual, that hearing is morally virtuous whereas vision

is intrinsically untrustworthy, and finally that hearing is sympathetic whereas vision is indifferent or even treacherous. Yet there are puzzles and inconsistencies which suggest that these distinctions may reflect more upon the preconceptions of anthropological analysts than upon the actual sensory experience of the peoples among whom they have worked. Indeed it is hard to avoid the suspicion, voiced by Nadia Seremetakis (1994: 124), that in the imputation to non-Western 'Others' of heightened auditory (along with tactile and olfactory) sensibilities, they are being made to carry the burden of sensory modalities exiled from the sensory structure of Western modernity on account of the latter's attribution to the hegemony of vision.

Stoller, for example, devotes a whole chapter to arguing the need for anthropologists to transform themselves from ethnographic 'spectators into seers',[7] by opening up to the world of the other and allowing themselves to be penetrated by it. So convinced is he, however, that 'a person's spatialized "gaze" creates distance' that he can follow his own advice only by learning to *hear*, rather than to see, as the Songhay do (1989: 120). In this, his approach is entirely in accord with the convention that to attain real knowledge one must abandon the illusions of vision and yield to the guidance of the ear. The true 'seer' of the Western tradition is the blind prophet: in Seeger's words, 'one who physically cannot see' (1975: 222). Yet by Seeger's own account, this is not so for the Suyá, among whom the witch is certainly a seer rather than a spectator, albeit of a morally undesirable complexion. For the witch's all-around sight does not view the world from the outside, but opens it up from the inside. A similar inconsistency between analytic preconception and native experience appears in Gell's study of the Umeda. For having reasserted the now familiar proposition that 'hearing is (relatively) *intimate*, concrete, and tactile, whereas vision promotes abstraction', he goes on to tell us that Umeda themselves 'treat sight . . . as a climactic sense with connotations of *intimacy* and danger' (1995: 235, 239, my emphases). The intimacy of sight, for Umeda, lies in close-range, eye-to-eye contact, and its danger is linked to the ever present possibility of sorcery attack. An angry glance can terrify the one to whom it is directed. Umeda, it seems, would be the last to agree that vision promotes abstraction!

Commenting on the Suyá case, David Howes suggests that 'there may be a connection between aurality and sociability, on the one hand, and visuality and individuality (or an "asocial disposition"), on the other'. This connection, he argues, might even be rephrased as a general law: 'the more a society emphasizes the eye, the less communal it will be; the more it emphasizes the ear, the less individualistic it will be' (Howes 1991b: 177–8). Once again, however, this 'law' merely reproduces a homology between two dualities, individual versus social and seeing versus hearing, that has long been axiomatic in the Western tradition. And it glosses over fundamental differences between Western and (for example) Suyá understandings, both of the 'asocial individual' and of vision. The Suyá 'witch' is not at all, as Howes (1991b: 177) thinks, the counterpart of the Western 'individual'. For one thing, the witch's vision penetrates the world rather than catching reflections off its outer surfaces; for another he does not stand, as does the Western individual, *vis-à-vis* others in society, but embodies in his being the active negation of sociality as a principle of relationship. In this sense the witch is more *anti*-social than *a*social.

Like the Suyá witch, the shaman among the Inuit possesses extraordinary powers of vision, though these could be used for beneficial as well as harmful ends. He, too, is a seer rather than a spectator, whose sight could open up pathways into the parallel worlds of animals and spirits. In the cosmology of the Yup'ik Eskimos, according to Anne Fienup-Riordan, 'vision was an act constituting knowledge, and witnessing was a potentially

creative act' (1994: 316). The Eskimo cosmos, it transpires, teems with ever-watchful eyes. Among Inuit generally, there is a close association between seeing and hunting: it is through his clear and penetrating sight that the hunter initiates an encounter with the game animal, which in turn is consummated with the animal's willingly offering itself to the hunter (Oosten 1992: 130). These observations bring us back to Carpenter's seminal study of Inuit sensory experience. Why, in the face of overwhelming evidence for the centrality of eyesight to the Inuit perception of their environment, did Carpenter nevertheless insist to the contrary that, for them, the eye is subservient to the ear (Carpenter 1973: 33)? Could it be because he took with him into his study a preconceived notion of vision, as analytic and reflective rather than active and generative (Schafer 1985: 96), that was fundamentally incompatible with his fine appreciation of the dynamic potential and spherical topology of the Inuit lifeworld? And if, as Inuit ethnography suggests, it is perfectly possible to combine the perception of a lifeworld of this kind with a thoroughgoing ocularcentrism, albeit of a kind radically different from that with which we are familiar in the West, then how can we any longer attribute such perception to the predominance of hearing over sight in the balance of the senses?

Recall that it is on precisely these grounds that Gell accounts for the Umeda perception of animals, plants and the landscape. Judging from the descriptions of Gell and Carpenter, the parallels between the ways in which Umeda and Inuit constitute their worlds of experience are remarkably close. Their respective environments, however, could hardly be more different: dense, tropical forest as against treeless, arctic tundra. It is scarcely surprising that in these conditions, the Umeda hunter should be obliged to rely on his ears, and the Inuit hunter on his superior eyesight. Indeed Carpenter admits that when his Inuit companions used their eyes, 'it was often with an acuity that amazed me' (1973: 36). Yet to the extent that he depends on powers of vision rather than hearing, the Inuit hunter does not, in consequence, find his relation with the world turned inside out. He remains, like his Umeda counterpart, at the centre of a dynamic cosmos, caught up in the process of its perpetual generation. Beings do not, all at once, appear to him inert and thinglike, nor does the hunter feel himself any more an observer, or any less a participant.

Thus in comparing the sensory profile of Inuit or Umeda – or for that matter, Songhay or Suyá – with that of the West, it is clear that what is at stake is not the priority of vision over hearing, but the understanding of vision itself. Evidently, the primacy of vision cannot be held to account for the objectification of the world. Rather the reverse; it is through its co-option in the service of a peculiarly modern project of objectification that vision has been reduced to a faculty of pure, disinterested reflection, whose role is merely to deliver up 'things' to a transcendent consciousness. But while the eye, as Theodor Adorno argued, has had to get used to perceiving a reality of objects (or more specifically, of commodities), the ear has lagged behind in this development. There is something almost 'archaic', says Adorno, about hearing (Adorno 1981: 99). One of the ironies of the contemporary critique of visualism is that in calling for the restoration of hearing to its rightful place in the ratio of the senses, it actually reproduces this opposition between hearing and vision, and with it the very narrow and impoverished concept of vision to which its enlistment in the project of modernity has brought us. Having installed vision as the chief instrument of objective knowledge, leaving hearing to float in the primordial realms of emotion and feeling, we know what it means to hear sound but have effectively lost touch with the experience of *light*. To show how this has come about, I turn in the next section to a figure whose thinking is widely acknowledged to occupy a pivotal place in this transition – René Descartes.

The Optics of Descartes

Descartes began his *Optics* of 1637 by proclaiming his enthusiasm for the telescope. 'Since sight', he wrote, 'is the noblest and most comprehensive of the senses, inventions which serve to increase its power are undoubtedly among the most useful there can be' (1988: 57). And what more wonderful invention could one imagine than the telescope, which has so enhanced the power of sight as to open up whole new vistas for the human understanding of nature and the universe? In according pride of place among the senses to vision, Descartes was following in the footsteps of a long line of philosophers, reaching back to Plato and Aristotle.[8] Despite continuing doubts concerning the reliability of sight, as opposed to hearing, the superiority of both vision and hearing over the so-called 'contact' senses of touch, taste and smell was never in question. So far, I have had nothing to say about the latter. Taste and smell raise a whole gamut of problems of their own which lie beyond my present concerns, and while I admit that they would have to be included in any discussion of human sensory experience that claimed to be truly comprehensive, I do not intend to deal with them further here. But I can no longer put off some consideration of touch. For in treatments of perception in the Western philosophical tradition, it is above all to touch rather than hearing that sight has been compared. And in this, Descartes was no exception. Indeed it was through an analogy with touch that he chose to introduce the workings of vision.

Descartes invites us to consider a man who, blind from birth, is well practised in the art of perceiving objects around and about him through the medium of a stick. What happens is this. When the tip of the stick impacts upon an object (whether due to the movement of the stick, the object or both), a mechanical impulse is passed to the hand, whence it is further registered in the region of the brain from which the nerves of the hand originate. These excitations in the brain then provide the data upon which is done a mental act of calculation. Suppose, for example, that the blind man wishes to judge the distance of an object, which he touches at the same point with two sticks, one held in each hand. Knowing the distance between his hands, and the angle formed by each stick with the line connecting them, it is a simple matter to work out how far the object lies from the body. As Descartes himself remarks, the mental computational task involved in the estimation of distance calls for 'a kind of reasoning quite similar to that used by surveyors when they measure inaccessible places by means of two different vantage points' (1988: 67).

The import of the analogy is that for Descartes, this is precisely equivalent to what happens in vision. All you have to do is to substitute rays of reflected light for sticks, and the two eyes for the two hands.[9] Fluctuations in the patterns of reflected light reaching the eyes, due to the movement either of environmental objects or of the eyes themselves, are registered at the back of the retina, and thence in the part of the brain where the optic nerve-fibres have their source. The mind – or what Descartes calls the soul (in French, *âme*) – then gets to work on these patterns of excitation, resulting in that awareness of objects that allows us to claim to 'see' them. In defence of Descartes, it is important to recognise two aspects of this account which are often overlooked. First, it was plain to him that perception – whether visual or tactile – depended on movement. Were there no movement of the body and its sensory organs relative to the environment, nothing would be perceived. Ironically, this point has been lost in much of the subsequent psychology of vision, only to be rediscovered by advocates of an ecological approach to visual perception who adopt an explicitly anti-Cartesian stance. I return to this below. Secondly,

Descartes did not, as is commonly supposed, argue that the function of the eyes is to establish internal representations of external objects, which are then available for inspection by the mind. Indeed he was well aware of the absurdity of having to posit another set of eyes, inside the brain, to view the internal image. Whatever reaches the brain, and leads us to have sensory awareness of objects, no more *resembles* those objects than do the movements of the blind man's stick resemble the objects with which it comes into contact (1988: 64).[10]

It remains the case, however, that for Descartes, the act of perception naturally divides into two stages: the first leading from the physical encounter with an object to a pattern of nervous excitation in the brain; the second leading from these nervous impulses to a mental awareness of the object in the perceiver's line of sight. In which of these two stages, then, does the essence of vision reside? The comparison with touch suggests the former. Thus vision uses eyes and light-rays, touch uses hands and sticks. At a critical juncture in his exposition, however, Descartes shifts his ground. For it transpires that it is no longer in the work of the eyes that the essence of vision lies, but rather in the operations of the mind upon the deliverances of the senses. 'It is the soul which sees', he declares, 'and not the eye; and it does not see directly, but only by means of the brain' (1988: 68). Initially introduced as an active mode of bodily exploration of the environment, vision – as it were – 'goes indoors', and perforce has to build a picture of the outside world on the basis of intelligence received via the nervous system. Nor need this intelligence be received exclusively by way of the eyes. As a purely cognitive faculty, vision can also work upon the data of touch. Equipped with a stick, or even with bare hands, the blind can see! So can sighted people, walking without a light on a pitch dark night (1988: 58).

Thus we reach the extraordinary conclusion that vision, now conceived as an exclusively intellectual achievement, is no longer conditioned in any way by the embodied experience of inhabiting an illuminated world.[11] The role of light, being precisely equivalent to that of the blind man's stick, is to effect a purely mechanical transduction. One does not see light, any more than the blind man sees his stick. Rather one sees things *by means of* the light and the stick. For what is registered in the brain, in the form of patterns of nervous excitation, is information not about light, or about the stick, but about the bodies in the environment with which it comes into contact, or off which it is deflected. Once this information is inside the brain, at the point where vision proper begins, the light – like the stick – has done its job, and plays no further part in the proceedings by virtue of which the perceiver comes to 'see' the world spread out before him. At this point the eyes, that look but cannot see, hand over to the 'I', the Cartesian *cogito*, who sees but cannot look. Through the medium of light, my eyes can touch the world, and be touched by it; but *I* cannot. Yet I can see. Evidently, then, the superiority of vision over touch is not that of one sense over another, but that of cognition over sensation. This is why Descartes chose to explain sight by making an example of the blind man. It was his way of showing that light, in itself, is incidental to vision.

On the meaning of light

All this, however, still leaves us with a puzzle. If the power of sight lies in the cognitive operations of the mind rather than the physical work of the eyes, then why should Descartes have been so excited by the telescope, which surely augments the power of the eyes but does nothing to assist the mind? It is the soul which sees, says Descartes. But the

telescope, which is not a computing device, does not help the soul to see! Were we to maintain, to the contrary, that the power of sight lies first and foremost in the work of the eyes and not the operations of the mind, then the telescope might indeed be of some assistance, yet by Descartes' own argument there would no longer be any reason to elevate the sense of sight over the contact sense of touch. If one could, with all equanimity, substitute sticks for light rays, then what is so special about eyesight? The ambivalence, in Descartes' account, between eye and mind as the primary locus of seeing, or in other words between vision as bodily *observation* and as mental *speculation* (Jay 1993a: 29), was never resolved, and remains with us to this day. Moreover it has become entangled in our thinking with another, equally puzzling dilemma, concerning the very significance of the word 'light'. Does it refer to rectilinear rays which, reflected off the surfaces of things, strike the eyes and thereby give rise to certain sensations? Or does its meaning lie in the subjective experience that we have in consequence of these sensations, of a luminosity within which things are given to consciousness as 'visible objects'? Does light, in short, shine in the world or in the mind?

For the philosophers of antiquity, this question did not arise, or not at least in this form. Their physics was one that placed the figure of sentient man at the centre of the cosmos, and each chapter of physics corresponded to a particular area of bodily sensation. One such chapter was optics. It was about how knowledge of the surrounding world could be obtained through the eye. Light, denoted by the term *lux*, was both the source of illumination and the medium in which this knowledge was supposed to be represented. As such it originated from the centre, with man, rather than from the cosmic periphery. But the Copernican revolution overthrew this anthropocentric cosmology. By the first half of the seventeenth century, when Descartes was writing, humankind had been relegated to the periphery of a universe that was supposed to run on principles entirely indifferent to human sensibilities. The task of physics was now to discover these principles. Among them are those whereby some physical impulse is propagated that, along with other effects, stimulates a reaction in the eyes. This impulse came to be known as *lumen*. Now when Descartes tells us that it is the soul that sees in the light of reason, rather than the eye in the light of the physical world, the light he is referring to is clearly the *lux* of the ancients – the light that shines in the mind.[12] But when to the contrary, as throughout the *Optics*, he speaks of light as reflected rays that excite the eye, he evidently intends to refer to the *lumen* of the physicists. The paradox of the *Optics* is that while vision 'goes indoors', from the world to the mind, light 'goes outdoors' from the mind to the world. And as Descartes showed, this external light – *lumen* – is the one thing we cannot see. The result is a curious disjunction between light and sight: the former on the outside, the latter on the inside, of an interface between mind and world. In short, sight begins where light ends.

Although more than three centuries have passed since Descartes was writing, we are still no clearer about the meaning of light. From contemporary physics we learn that light is a form of radiation that consists of waves or photons. This is to understand light in the sense of *lumen*. Yet most people, naturally enough, continue to equate light – as the thinkers of antiquity did – with the *lux* that illuminates the world of their perception. They are convinced, however, that this *lux* is the same as the physicists' *lumen*, and therefore that it has an external existence quite independent of their own eyes. Thus it is said that light travels from external objects to the eyes, and that we see because of it. And it is supposed that even if we close our eyes, the environment is still illuminated, as it was before. Yet we know that in fact, whatever reaches the eyes from outside (waves, photons)

gets no further than the back of the retina. And the experience on which we report, of an illuminated world, is apparently possible thanks to what goes on beyond that point, in the optic nerves and the brain. So is there light only in consequence of the stimulation of the retinal surface? Does it exist only on the hither side of eyesight? And if so, how can we claim, at one and the same time, that light *reaches* the eyes from afar? Physics has colluded in this confusion, though in the reverse direction. For notwithstanding its redefinition from a physiology of the senses to an objective science of nature, it continues to describe as 'optics' that branch of study dealing with light and its propagation, even though in practice it has nothing whatever to do with the eye.

Vasco Ronchi, in the introduction to his *Optics* of 1957, illustrates these problems in the conception of light by drawing an intriguing parallel with sound. The equivalent of the distinction between *lumen* and *lux* is, in this case, that between mechanical vibration in the external medium and the sound we claim to hear when our ears are placed within its field of action. By rights, there should be no such thing as a physics of sound. For as there is no sound without an ear and a brain, the study of sound – that is, acoustics – could be undertaken only by combining the physics of vibratory motion with the physiology of the ear and the psychology of aural perception. Yet physicists, anxious to reserve acoustics for themselves, and not to get mixed up with subjective phenomena of mind and perception, persist in equating the vibrations that induce in the listener an experience of sound with the sound itself, thus perpetuating the error that 'sound is actually a physical, not a mental phenomenon' (Ronchi 1957: 17). And so everyone else is happy to go along with the illusion that sound actually travels through the air and is received as such by the listener, when in fact all that reach the ears are vibrations and there is no sound until these have been transformed into nerve impulses and carried to the mind-brain.

But if there is really no sound in the physical world beyond the brain, are we to conclude that this world is *silent*? And likewise, if there is really no *lux* in the external world, are we to conclude that the world 'out there' is *dark*? This is, indeed, the conclusion to which Ronchi moves. Our minds are filled with sound and light, even though neither vibrations nor rays reach there, while the vibrant and radiant world is actually silent and dark. Yet what can silence mean in a world without ears, or darkness in a world without eyes? Questions about the meaning of light, as of sound, are surely wrongly posed if they force us to choose between regarding light and sound as either physical or mental phenomena. They are wrongly posed because they continue to regard the organs of sense as gateways between an external, physical world and an internal world of mind.

Thus Ronchi, like Descartes before him, thinks of vision as a process that starts with a movement in the world which, via a propagation of waves or particles that happen to enter the eyes, causes impulses to travel along the optic nerves to the brain, and ends with these impulses being 'turned over to the mind' which – on the basis of a comparison with information already in its possession – 'creates a luminous and colored figure' (Ronchi 1957: 288). According to this view, a physiology of vision can tell us about what happens on the far side of the 'turn-over' point, and a psychology of vision can tell us what happens on the near side. Neither kind of account, however, can embrace the 'turning over' itself. How it is that nervous impulses are passed to the mind – or how they 'tickle' the soul, as Descartes rather quaintly put it (1988: 65) – remains a mystery.

It is my contention that there is no such interface between eye and mind. Far from starting with incident radiation and finishing up with a mental image, the process of vision consists in a never-ending, two-way process of engagement between the perceiver and his

or her environment. This is what we mean when we speak of vision, colloquially, as 'looking' or 'watching'. And what Ronchi presents as a turn-over point is not that at all, but a critical nexus in this process. It is at this nexus, rather than on either the near or the far side of it, that the phenomenon we know as 'light' is generated. This phenomenon is not the objective, external *lumen*, nor is it the subjective, interior *lux*. It is rather a phenomenon of experience, of that very involvement in the world that is a necessary precondition for the isolation of the perceiver as a subject with a 'mind', and of the environment as a domain of objects to be perceived. Establishing this understanding of the process of vision and of the nature of light will be our next task.

Three twentieth-century thinkers

In order to set out the groundwork for an alternative metaphysics of vision, I shall embark in what follows on a kind of theoretical triangulation. I do this by reviewing the ideas of three mid-twentieth-century thinkers, all of whom had important things to say about vision which were critical, in one way or another, of Descartes. The first, Hans Jonas, went out of his way to stress the differences between vision, hearing and touch as sensory modalities. For him, vision was indeed the superior sense, due not to its identification with reason, but to its peculiar phenomenal properties. The second, James Gibson, rejected the two-stage model of visual perception, and with it the classic Cartesian dualism of body and mind. Gibson argued that perception is an activity not of the mind, upon the deliverances of sense, but of the whole organism in its environmental setting. Vision is not, then, indirect, as Descartes maintained, but direct. The third, Maurice Merleau-Ponty, has perhaps gone further than any other recent thinker in recognising that vision is not just a matter of seeing things but is crucially an experience of light. Refusing to set up any absolute boundary, or line of demarcation, between the perceiver and the perceived, Merleau-Ponty held that light is tantamount to what we experience, in vision, as an opening up of the body onto the world.

Hans Jonas

The distinctiveness of sight, for Jonas, lies in three properties that are unique to this sensory modality: namely, simultaneity, neutralisation and distance (Jonas 1966: 136). The first refers to the ability to take in the world at a glance, so that a manifold that is present all at once can likewise be apprehended all at once. Neither hearing nor touch can achieve this. Reiterating a well-established view that we have already encountered, Jonas argues that whereas one can see things, one hears only sounds rather than the entities whose activity gives rise to them. Thus one hears the bark but not the dog, whose presence can only be inferred on the basis of non-acoustic information. And there is no sound that is not suspended in the current of time. The duration of the sound one hears is the same as that of one's hearing it; what is disclosed over time is also apprehended over time. True, distinct sounds may coexist or be juxtaposed, but each belongs to one of several 'strands' proceeding concurrently, and cannot be apprehended apart from the temporal flow. Arrest the flow and what you have is not a coherent snapshot, but a collection of atomic fragments. Touch shares with hearing this quality of temporality, at least so far as the perceiver is concerned. Yet unlike hearing, the data of touch can be synthesised to reveal the stable presence of objects. In this respect, touch comes closer to vision: thus, up to a point, the blind can achieve with their hands what the sighted achieve with their

eyes. Nevertheless, the difference between touch and vision remains fundamental. The discovery of objects through touch necessitates an active exploration of the environment: this calls for movement and takes time. With vision you have only to open your eyes, and the world is there, already spread out as a ground for any further exploration of it. Only with vision, therefore, is it possible to distinguish being from becoming, and hence to entertain a concept of change. For hearing and touch, since they can know the world only through the movement of perceptual activity, there is neither change nor stasis, only becoming (Jonas 1966: 136–45).

The second property of sight, what Jonas calls neutralisation, lies in the disengagement between the perceiver and the seen. Touching something entails an action on your part, to which the object responds according to its nature. Hearing presupposes an action on the part of the object which generates the sound, to which you respond according to your sensibility. Thus while the balance of agency shifts from the subject (in touch) to the object (in hearing), there is in both an engagement between them, of a kind that is entirely absent from vision. The object need do nothing to be seen, since the source of the light by which it is revealed lies elsewhere. And to see the object one does not have to take up an attitude towards it. 'In seeing', Jonas writes, 'the percipient remains entirely free from causal involvement in the things to be perceived' (1966: 148). Thus vision is neutralising since it reveals the object simply for what it is. What is lost in terms of an intuitive understanding of the connectedness of things is gained in terms of objectivity. Rather than *affecting* the perceiver, as touch and hearing do, vision offers to the perceiver an *image* which, handed over to thought, can be manipulated at will, without further consequence for the object itself. But precisely because of their neutralisation, the objects of vision are in a sense 'mute', since in revealing their presence they do not speak to us or address human concerns (Jonas 1966: 145–9).

The third property of sight, spatial distance, is relatively self-evident. In an environment free from obstruction we can see a long way. Touch does not extend beyond the reach of the body, augmented perhaps by sticks or other such prostheses. Sound carries further, but has its limits, and is especially susceptible to distortion at the margins. Moreover when I hear a far-off sound, though I may be able to estimate the direction and distance of its source from where I now stand, I still have no idea – from the acoustic information alone – of what lies in between. It is peculiar to vision, by contrast, that it reveals not only distant objects, but also an encompassing landscape that stretches out from my present location to the horizon. I could, then, set out along a path that would take me to any one of these objects, with some foreknowledge of what to expect along the way (Jonas 1966: 149–52). Yet in an appendix, Jonas adds a crucial qualification to this argument. As he now admits, vision would never reveal the world in the way it does, arranged in depth and stretching away from us, were we not already used to moving through it, and in so doing, incorporating its features into structures of tactile awareness. Touch, in a word, confirms the materiality of the visible. Hence the motility of the body is a factor in the very constitution of vision and of the seen world. At first glance, this proposition seems at odds with the thesis of the simultaneity of visual perception: that the world can be taken in at a glance, from a fixed standpoint. Jonas's solution to the paradox is to argue that we are able to view the world as a spectacle, from a position of rest, precisely *because* we do so in the light of the 'accumulated experience of performed motion' (1966: 154) resulting from a history of previous activities. In short, the dynamics of bodily movement establish the essential foundation for the static experience of vision, but are not themselves part of that experience (Jonas 1966: 152–6).

James Gibson

With this last point, Gibson would have found himself in fundamental disagreement. Movement, in his view, is as integral to vision as it is to touch; moreover there is no need for the one sense to be *validated* by the other (Gibson 1966: 55). I shall not here attempt a full review of Gibson's ecological approach to visual perception, as others have done so elsewhere (Michaels and Carello 1981, Reed 1988b; see also Chapter Nine, pp. 166–8). However there are three aspects of this approach that I am particularly concerned to bring out here. First, I shall explain more precisely what Gibson meant by saying that visual as well as other modalities of perception are direct rather than indirect. Secondly, I show how Gibson's conception of the senses as perceptual systems, rather than as stimulus-specific registers of experience, renders the distinctions between vision, hearing and touch far less clearcut than we are inclined to think. Thirdly, I want to explore the specific argument by which Gibson denies that we ever see light as such. In this, I suggest, his ideas are still firmly rooted in the Cartesian tradition.

For Descartes, it will be recalled, the mind is unable to mingle with the world. Locked within the confines of a body, all it can do is to perform various calculative manoeuvres, on the basis of stimuli registered in the brain, in order to build up a more or less accurate representation of the world outside. This is what Descartes meant by describing perception – whether visual or tactile – as indirect. Gibson maintains, to the contrary, that perception is direct. By this he does not mean that it can somehow bypass the brain; any such suggestion would obviously be absurd. His point is rather that we should cease thinking of perception as the computational activity of a mind within a body, and regard it instead as the exploratory activity of the organism within its environment. As such, it does not yield images or representations. It rather guides the organism along in the furtherance of its project. The perceptually acute organism is one whose movements are closely tuned and ever responsive to environmental perturbations. For this reason, visual perception can never be disinterested or purely contemplative, as Jonas claimed. *What* we see is inseparable from *how* we see, and how we see is always a function of the practical activity in which we are currently engaged.

On the face of it Gibson would seem to agree with Descartes, that sight and touch are strictly comparable as modes of sensory contact with the environment. 'In many respects', he writes, 'the [haptic] system parallels vision' (1966: 134). Moreover we have seen that Gibson's view that perception of any kind depends on movement of the perceiver relative to the perceived also finds resonances in Descartes. Beneath the apparent convergence, however, their respective positions are diametrically opposed. For on the axis of contrast that Jonas draws between neutralisation and engagement, and which for him distinguishes sight from touch, the Cartesian perspective would join touch with sight on the side of neutralisation, whereas the Gibsonian perspective joins sight with touch on the side of engagement. Or to sum up:

	Touch	*Sight*
Descartes:	Neutralisation	Neutralisation
Jonas:	Engagement	Neutralisation
Gibson:	Engagement	Engagement

It would be wrong, Gibson argues, to think of the eyes, the ears or the sensitive surfaces of the skin simply as loci for banks of receptor cells that are, in turn, hooked up to centres

of projection in the brain. Rather, they are to be understood as integral parts of a body that is continually on the move, actively exploring the environment in the practical pursuit of its life in the world. Sight, for instance, is not an effect of the stimulation of photo-receptors in the retina, coupled to processors in the visual cortex. It is rather an achievement of a system that also encompasses the neuromuscular linkages controlling the movement and orientation of the *organs* in which the receptors are located. These organs may be specified on a number of levels of increasing inclusivity: thus 'the eye is part of a dual organ, one of a pair of mobile eyes, and they are set in a head that can turn, attached to a body that can move from place to place'. Together these organs comprise what Gibson calls the *perceptual system* for vision (Gibson 1979: 53, cf. 1966). Much of this is shared with the system for hearing, and with that for touch. The head, for example, is common to vision and hearing: the action of turning the head so as to balance the auditory input from a sound source to the two ears, located on each side, also turns the eyes, at the front, so that they are oriented directly towards the source. As this example demonstrates, the perceptual systems not only overlap in their functions, but are also subsumed under a total system of bodily orientation (Gibson 1966: 4, 49–51; 1979: 245). Looking, listening and touching, therefore, are not separate activities, they are just different facets of the same activity: that of the whole organism in its environment.

Hence the idea, proposed by Jonas, that having made a thorough exploration of the world through movement, relying on the sense of touch, one could then stop still and take it in at a glance through the eyes, would have made no sense to Gibson. This is for two reasons: first, that we explore the world with our eyes open (and even when we stop we look about); and secondly, that vision does not yield a snapshot, or even a series of snapshots. It rather yields an appreciation of objects 'in the round'. We do not see an object, any more than we feel it, from a single point of view. Rather, by 'running our eyes over it' – as we might run our fingers over it in tactile perception – we discover its form as the envelope of a movement, that is of the continuous modulation of the array of reflected light reaching the eyes. Indeed it is because vision, like touch, takes place over time along what Gibson calls a 'path of observation' (1979: 197), that we can see aspects of objects which, at any particular moment, may be hidden by occluding edges. And since the information yielded by the operation of perceptual systems is specific to the things encountered, rather than to the particular sensory keyboard that is activated, a switch in the balance of stimulation – say from the tactile to the visual – may make little appreciable difference to what is actually perceived. Of course the *sensations* of vision are not the same as those of touch and hearing. But the 'patterns in the flux of sound, touch, and light from the environment', which specify the objects of one's attention, may be strictly equivalent (Gibson 1966: 54–5; 1979: 243).

This argument carries an important corollary. For if what we see is delineated by the patterning or modulation of reflected light as it is picked up by the moving organs of sight, then the one thing we never actually see must be light itself. To the question, 'Of all the possible things that can be seen, is light one of them?', Gibson answers categorically in the negative (1979: 54). Rather, he says, we see *things* by means of light. In view of Gibson's resolutely anti-Cartesian stance, this conclusion – which is fully in accord with Descartes' views on the matter – comes as something of a surprise. Indeed he admits to being vexed by the question of how certain phenomena seem to announce their presence directly, as radiant light, rather than by way of the illumination of their surfaces (1966: 220). Is this not how we come to perceive a flaming fire, a candle lamp, the sun and moon, a shaft of sunlight through the clouds, a rainbow, the glare of the sun reflected

from a glossy surface, or the scintillations of light off water? Intuitively, it seems that in every one of these cases light is just what we *do* see. Yet for each, Gibson has his answer: the fire and the lamp are 'specific objects and are so specified', as are the celestial bodies. We do not really see shafts of sunlight, but only illuminated particles in the air. Dazzled by the sun, what we actually perceive is a 'fact about the body', namely its excessive optical stimulation, experienced as a kind of pain. As for rainbows, scintillations and the like, these 'are all manifestations of light, not light as such' (1979: 55).

But as the examples mount up, Gibson's defence becomes less and less plausible. In what sense can we possibly regard a flame as an object? Ignoring the knowledge of science and schoolbooks, how are the sun and moon specified?[13] When it comes to beams of sunlight, common sense tells us that we see the light by way of airborne particles, and not vice versa. If excessive optical stimulation causes pain, does this make it any less an experience of light? What if the glare were less intense, and caused no appreciable discomfort: would we, then, cease to be aware of it? Finally, it is difficult to see how 'manifestations of light' can possibly be distinguished from 'light as such' without resorting to a highly reductive notion of what light actually is. Indeed this is precisely what Gibson does. 'All we ever see', he insists, 'is the environment or facts about the environment, never *photons or radiant energy*' (1979: 55, my emphasis). Gibson's 'light', in short, is the *lumen* of modern physics.[14] At no point does he ever think of it as anything other than a kind of energetic impulse, a source of stimulation that, if it exceeds a certain threshold, causes photoreceptor cells to 'fire'. The resulting sensations, he insists, do not in themselves constitute the basis for visual perception. No amount of light will cause us to see, unless that light is structured on account of its reflection from illuminated surfaces in the environment. Thus light carries the information for perception, but is never perceived *as such*.

Maurice Merleau-Ponty

It is here, above all, that Gibson's ecological psychology parts company with the phenomenology of Merleau-Ponty. Though they speak very different intellectual languages, there is much in common between what Gibson and Merleau-Ponty have to say. For both, the senses exist not as distinct registers whose separate impressions are combined only at higher levels of cognitive processing, but as aspects of functioning of the whole body in movement, brought together in the very action of its involvement in an environment. Any one sense, in 'homing in' on a particular topic of attention, brings with it the concordant operations of all the others. In his *Phenomenology of Perception*, Merleau-Ponty compares this integration of the senses in action to the collaboration of the eyes in binocular vision (1962: 230–3). Just as the unity of the object of vision is not the result of some 'third person process' which produces a single image out of two monocular images, but is rather given in the way the two eyes 'are used as a single organ by one single gaze', so the unity of a thing as an 'inter-sensory entity' lies not in the mental fusion of images founded on different registers of sensation, but in the bodily synergy of the senses in their convergent striving towards a common goal. Thus 'my gaze, my touch and all my other senses are together the powers of one and the same body integrated into one and the same action' (1962: 317–18). In short, for Merleau-Ponty as for Gibson, it is in their collaborative bearing on features of the world, rather than their common accountability to processing centres in the mind, that the senses are conjoined.

Like Gibson, too, Merleau-Ponty regards touch and vision as comparable modes of sensory engagement with the environment. This is not to say they are equivalent, since

each brings with it 'a structure of being that can never be exactly transposed' (1962: 225). That is why formerly blind persons, whose sight has been restored, initially find their predicament so bewildering: tactile experience turns out to be a poor guide to the visual world, not because it is relatively impoverished but because the tactile world is differently *structured* (1962: 222–4). Nevertheless, Merleau-Ponty surmises that the visual gaze functions as a 'natural instrument' of perception in much the same way as does the blind man's stick (1962: 153). The analogy, of course, is drawn from Descartes. Yet in his celebrated essay on 'Eye and mind', Merleau-Ponty takes it as the starting point for an all-out attack on the whole Cartesian programme (Merleau-Ponty 1964a: 169–78). His objection, however, is not to the comparison of the visual gaze to the tactile probe, but to the idea that both are harnessed to the project of constructing internal representations of an external reality. The truth, he maintains, is quite otherwise. For like the stick, the gaze is caught up in a dialogic, exploratory encounter between the perceiver and the world, in which every movement on the part of the perceiver is a questioning, and every reaction on the part of the perceived is a response. Thus 'the gaze gets more or less from things according to the way it questions them, ranges over or dwells on them' (1962: 153).

Both Gibson and Merleau-Ponty are adamant in their rejection of the Cartesian idea of vision, in Merleau-Ponty's words, 'as an operation of thought that would set up before the mind a picture or a representation of the world' (1964a: 162). Indeed the perceiver, they would say, has no need for such a picture in order to act in a way that is attuned to the features of his or her surroundings. Since my body inhabits the world, and since – to all intents and purposes – I and my body are one and the same (Merleau-Ponty 1962: 206), it follows that I, too, am an inhabitant of the world rather than of a space inside my head. And for the same reason, I can always consult the world to orient my movements, rather than an internal cognitive representation. Like Gibson, Merleau-Ponty stressed that while there cannot be vision without movement, this movement must also be visually guided: it must 'have its antennae, its clairvoyance' (1964a: 162). But whereas Gibson asked how it is possible for the perceiver to see objects in the environment, Merleau-Ponty went one step further back. For how could there be an environment full of objects, he asked, except for a being that is already immersed in the lifeworld, in 'the soil of the sensible' (1964a: 160), and therefore caught up in a visual field that is pre-objectively given? Such involvement must be ontologically prior to the objectification of the environment that Gibson takes as his point of departure. In short, before 'I see *things*' must come 'I can *see*'. So what does it mean, to see?

Merleau-Ponty's essay 'Eye and mind', his last published work, is an attempt to answer this question. The arguments of the essay are not easy to follow, but one can get the gist of them by performing a simple experiment. Close your eyes for a while, and then open them again. Do you have the impression that you are staring out upon the world through a hole (or perhaps two holes) in the front of your head? Is it as though you were looking through the windows of your unlit house, having opened the shutters?[15] Far from it. Rather, it seems that you are out there yourself, shamelessly mingling with all you see, and flitting around like an agile spirit from one place to another as the focus of your attention shifts. It is as if the walls and ceiling of your house had simply vanished, leaving you out in the open. In short, you experience seeing not as seeing *out*, but as *being* out – until, that is, you close your eyes again, at which point the spirit is instantly captured and put back inside, imprisoned in the dark and eery confines of a shuttered enclosure, your head. For Descartes the light of the mind (*lux*) was in this darkness, which is why he thought the blind could see. But experience teaches us differently. It is, as Merleau-

Ponty writes, that through vision 'we come into contact with the sun and the stars, that we are everywhere all at once'. Or again, vision 'is the means given me for being absent from myself' (1964a: 186–7). We now have a clue to what Merleau-Ponty meant by his repeated insistence on the indistinguishability of the seeing and the seen, or the 'sensor and the sensible' (cf. 1962: 214). This is primordially evident in the case of my body, which both sees and is seen, but equally true of the whole 'fabric of the world' in which it is caught up. And we can understand what he means by the assertion that vision is not *of* things but happens *among* them. For it is constitutive of the whole perceptual field, drawn around myself at its centre, which both they and I inhabit.

All this is a far cry from the picture that Jonas paints of the immobile and detached spectator, contemplating a world with which he has no causal involvement whatever. Returning to an opposition that I have already introduced in the context of my initial discussion of the anthropology of the senses, Merleau-Ponty replaces the image of the spectator with that of the *seer*. 'Immersed in the visible by his body', he writes, 'the seeer does not appropriate what he sees; he merely approaches it by looking, he opens himself to the world' (1964a: 162). Raise your eyelids, and you find yourself, almost literally, 'in the open'. Indeed, this little phrase perfectly captures what Merleau-Ponty portrays as the magic – or delirium (1964a: 166) – of vision. We live in visual space from the inside, we inhabit it, yet that space is already outside, open to the horizon. Thus the boundary between inside and outside, or between self and world, is dissolved. The space of vision both surrounds us and passes through us (1964a: 178). Elsewhere, Merleau-Ponty imagines himself gazing up at the blue sky:

> As I contemplate the blue of the sky I am not *set over against* it as an acosmic subject; I do not possess it in thought, or spread out towards it some idea of blue such as might reveal the secret of it . . . I am the sky itself as it is drawn together and unified, and as it begins to exist for itself; my consciousness is saturated with this limitless blue.
>
> (1962: 214, original emphases)

Compare this with Gibson, who answers his own question of how one might visually perceive 'a luminous *field*, such as the sky?', with the response: 'To me it seems that I see the sky, not luminosity as such' (1979: 54).

The sky presents a problem for Gibson precisely because he is unable to countenance the environment in any other way than as a world of objects 'set over against' the perceiver, and revealed through the patterns of ambient light reflected from its opaque, outer surfaces. Yet the sky has no surface. It is not a thing, like a building or a tree, off which light rebounds. On the contrary, the sky is openness or transparency itself, sheer luminosity, against which things stand out by virtue of their opacity or closure. To suppose, as Gibson does, that one sees the sky as distinct from its luminosity is like pretending that one hears thunder rather than its sound, or feels the wind rather than a current of air. What is thunder if not sound, or the wind if not airflow? On hearing thunder, or feeling the wind, it is as though one's very being mingles with the surrounding medium and resonates with its vibrations. Likewise, sunlight and moonlight present themselves to vision, in Merleau-Ponty's words, as 'kinds of symbiosis, certain ways the outside has of invading us and certain ways we have of meeting this invasion' (1962: 317). This is not to reduce light to radiant energy or photons, as in a physicalist description; nor is it to conclude, on the other extreme, that light shines only in the mind while the world might as well be pitch dark. It is to recognise that for persons who can see, light is the *experience* of inhabiting

the world of the visible, and that its qualities – of brilliance and shade, tint and colour, and saturation – are variations upon this experience.[16]

Perhaps Gibson was right, after all, to say that we do not see light 'as such', since light is not an object. It rather constitutes, for the sighted, the pre-objective foundation of existence, that commingling of the subject with the world without which there could not be visible things, or 'facts about the environment', at all. Light, in short, is the ground of being out of which things coalesce – or from which they stand forth – as objects of attention. Thus as Merleau-Ponty writes (1964a: 178), we do not so much see light as see *in* it. And for all who can see in it, the experience of light is perfectly real. Indeed we have no more reason to doubt the reality of light than we have to question the experience of blindness for those who *cannot* see in it. Yet we are all too ready to take it for granted: it is the very familiarity of our experience, of that openness to the world sensed as light, that causes it to hide from us. So busily preoccupied are we with all the things that vision reveals to us that we forget the foundational experience upon which it rests. The process of seeing in light is swallowed up by its products, objects of sight. And by the same token, the joy and astonishment of the discovery that 'I can *see*' gives way to the mundane indifference of 'I see *things*'. The message of Merleau-Ponty is that we need to reverse this perspective, to recover the sense of vision that is original to our experience of the world, and that is a precondition for its objectification.[17]

This, finally, is what motivates the work of the painter. A painting, for Merleau-Ponty, is not just another object of vision. You do not look at it, nor do you see it, as you would any ordinary thing. Rather, you 'see according to it, or with it' (1964a: 164). Like all sighted people, painters see in light, and it is the inspiration for their work. They cannot afford to dismiss their experience as an illusion, and nor can we, unless we wish to write off the history of painting as an aberration caused by the overstimulation of excessively susceptible minds (1964a: 186–7). However the painter's vision, Merleau-Ponty insists, 'is not a view from the *outside*, a merely "physical-optical" relation with the world'. It is rather a 'continued birth', as though at every moment the painter opened his eyes to the world, like a new-born infant, for the first time. The birth of his vision is, at one and the same time, the 'concentration or coming-to-itself of the visible'. And so the painting to which it gives rise is an embodiment of this creative movement: it does not *represent* things, or a world, but shows 'how things become things, how the world becomes a world' (1964a: 167–8, 181).[18] Thus to see with, or according to, a painting is to question the ordinariness of our everyday perception of objects, to rekindle in us the astonishment of vision, and to remind us that there are things in the world to be seen only because we first can see.

In the course of this review of the ideas of our three thinkers – Jonas, Gibson and Merleau-Ponty – we have progressed from a notion of vision as a mode of *speculation*, to one of vision as a mode of *participation*, and finally to one of vision as a mode of *being*. For Jonas the visual world is presented to the disinterested observer as a scene or spectacle; for Gibson it becomes an environment that surrounds the engaged participant but whose preformed surfaces nevertheless remain closed and impenetrable to the eye. For Merleau-Ponty the visual world is given to subjective experience as a cosmos that is open and transparent, that one can see into rather than merely look at, and that continually comes into existence around the perceiver. As we have already seen, recent debates in both anthropology and philosophy concerning the role of the senses in human societies have tended to assume that vision is inherently speculative, and have paid little heed to the possibility of alternative modalities. When it comes to touch and especially sound, however, a quite

different view prevails, and this has led to the positing of a great sensory divide between visual perception on the one hand, and auditory and tactile perception on the other, and with it, between Western societies in which the former allegedly dominates, and non-Western societies which are said to be given over to the latter. My aim, now, is to replace the orthodox, speculative notion of vision with a participatory or existential one. Once this is done, the 'great divide' simply vanishes.

The hearing eye and the seeing ear

After that long excursion into theories of vision, our immediate priority must be to return to sound and hearing. Earlier on, I cited a passage from the work of the musicologist Zuckerkandl, *Sound and Symbol* (1956), in which he contrasts the properties of sight and hearing by way of a rather gross characterisation of the attitudes of deaf and blind people. I shall consider what such people have to say about their own sensory experience in the following section. For the moment, however, I intend to look rather more closely at Zuckerkandl's study, for two reasons. First, I want to bring out the close parallels between the way Zuckerkandl speaks of the musical experience of sound, and the way Merleau-Ponty speaks of the painterly experience of light. These experiences, it turns out, are virtually identical. Secondly, although Zuckerkandl maintains that vision and hearing are generally opposed, he admits that this is not universally so, and towards the end of his study he speculates that this opposition may not have been given from the start, either in the development of the individual or in the evolution of human culture. If he is right in supposing that vision split off from hearing in the course of an evolution towards modern Western civilisation, then it is clearly inadmissible to retroject the resulting distinction between these sensory modalities onto humanity at large.

For the most part, Zuckerkandl is quite categorical about the difference between the way in which the world is perceived through the eye and through the ear. The eye reinforces a barrier separating two domains: the inner domain of the mind or consciousness, and the outer domain of the world. It keeps things at a distance. They stay 'out there', fixed in their proper places in an overall spatial array that can be mapped out in terms of intervals and boundaries. The space of vision is one from which you, the viewer, are excluded, a space where things are but you are not. Thus the visual experience of space is essentially disjunctive. The domains of 'inner' and 'outer', as Zuckerkandl writes, 'face each other like two mutually exclusive precincts on either side of an impassable dividing line'. But in hearing, the distinction between 'precincts' is transformed into one between 'directions'. In the inward direction, the world penetrates consciousness; in the reverse, outward direction, consciousness penetrates the world (1956: 368–9). In place of the barrier that the eye throws up around the perceiving subject, the ear builds a bridge which allows a two-way flow of sensory traffic. When you see things that are far away, they are perceived to be *at* a distance, but when you hear far-off sounds they seem to be *coming from* a distance (p. 291). The space of hearing, then, is not set over against you, the listener, but streams towards you and into you. It is a space not of places but of flows, where nothing can be divided and nothing measured. Your auditory experience is essentially participatory, one of immersion in a 'boundless indivisible oneness' (p. 336). And so the quality 'out there', that we experience in vision, is replaced by the quality 'from-out-there-toward-me-and-through-me'. Or in other words, the step from visual to auditory perception is 'like a transition from a static to a fluid medium' (p. 277).

What I find so remarkable about Zuckerkandl's account of hearing is that it matches point by point, almost down to the details of the rhetoric, what Merleau-Ponty has to say about vision. We have only to recall Merleau-Ponty's conception of visual space as both 'surrounding' and 'passing through' the perceiver, of consciousness as 'saturated' with luminosity, of the seer as 'immersed' in the visible, of the outside 'invading' us and of our 'meeting this invasion' (1962: 214, 317; 1964a: 162, 178). Echoing Zuckerkandl's notion of inward and outward currents, Merleau-Ponty speaks of an 'inspiration and expiration of Being, action and passion so slightly discernible that it becomes impossible to distinguish between what sees and what is seen' (1964a: 167). Revealing, too, is the fact that in order to convey the sense of what he means by vision, Merleau-Ponty has occasional recourse to auditory metaphor – the precise reverse of the use of visual metaphor to describe auditory experience that we have already encountered in the Saussurian notion of the sound-image. 'Quality, light, colour, depth', he writes, 'are there only because they awaken an echo in our body and because the body welcomes them' (1964a: 164). If for Saussure it sometimes seems as though the sounds of speech were seen and not heard, for Merleau-Ponty it can seem as though we listen with the eyes. In other words, though our experience may be one of seeing in light, it is nevertheless an experience that has all the qualities of hearing.

This thought had also occurred to Zuckerkandl. It arises in the context of a discussion of the pros and cons of either playing or listening to music with the eyes closed. According to one view, the eye is so closely implicated in a particular apprehension of space, occupied by 'corporeal things in their places', that it actively inhibits our involvement in the fluid space of forces that music opens up to us. It holds us back, and makes us unwilling to entrust ourselves with the whole of our being to sound. But Zuckerkandl is not fully convinced. Is it really necessary, he asks, to blind ourselves temporarily in order properly to hear? Is vision capable only of seeing things in their places? 'Can the eye perhaps hear too?' (1956: 341). Zuckerkandl believes that it can, albeit exceptionally, and that there are indeed 'activities of the eye that go beyond the function of seeing a thing in a place – and go beyond it in a particular direction, *which it seems natural to compare with the mode of perception of the ear*' (p. 344, my emphases). To exemplify the point Zuckerkandl imagines himself, just as had Merleau-Ponty before him, gazing into the blue sky. What he sees is not a 'thing out there' but 'boundless space, in which I lose myself'. But whereas Merleau-Ponty uses this example to illustrate the coalescence of the perceiver and the world which he takes to be fundamental to apprehending the space of vision, Zuckerkandl uses it to clarify his conception of auditory space! For him, the experience one has, looking up at the sky, is precisely what it means to hear.

It seems, then, that the kind of opening up to the world that Merleau-Ponty calls seeing is more or less identical to that which Zuckerkandl calls hearing. In Zuckerkandl's book, everything that Merleau-Ponty has to say about painterly vision would fall under the rubric of 'hearing with the eyes'. Indeed it is above all in the realm of painting, he thinks, that we find a perception of forces and dynamic relations strictly akin to the hearing of tones in music. The space of the picture, along with the things represented therein, 'is not simply set off from the observer; rather it opens itself to him, takes him into itself, passes into him' (Zuckerkandl 1956: 345). But reversing the perspective, all of what Zuckerkandl says about hearing could be regarded, from Merleau-Ponty's angle, as 'seeing with the ears'. This expectation is confirmed in the *Phenomenology of Perception*, where Merleau-Ponty devotes special attention to 'the sight of sounds'. Thus 'when I say that I see a sound, I mean that I echo the vibration of the sound with my whole sensory being' (1962: 234). This equivalence of seeing and hearing, however, raises an intriguing question. When

we hear with the eyes, or conversely when we see with the ears, is the experience one of light or sound?

Before we can answer this question, we have first to recognise that sound is no more a physical impulse that arrives from outside than it is a purely mental, 'inside the head' phenomenon. Indeed everything we have said about light applies to sound also. Like light, sound exists neither on the inner nor on the outer side of an interface between mind and world. It is rather generated as the experiential quality of an ongoing engagement between the perceiver and his or her environment. Sound is the underside of hearing just as light is the underside of vision; we hear in one as we see in the other. Now it would be foolish to suggest that gazing up at the sky yields anything other than an experience of light. Yet as seeing is tantamount, in this case, to hearing, it would be equally foolish to deny that it could also, and at the same time, be experienced as sound. Poets, as Zuckerkandl points out, have never had any difficulty with the idea (1956: 341). A particularly eloquent example of the sight of sound, or hearing with the eye, is offered by the poet David Wright, who speaks of how he 'hears' things, or rather movements, which most of us take to be silent:

> I take it that the flight of most birds, at least at a distance, must be silent . . . Yet it *appears* audible, each species creating a different 'eye-music', from the nonchalant melancholy of seagulls to the staccato flitting of birds.
>
> (Wright 1990: 12)

The particular poignancy of this example derives from the fact that Wright is himself deaf. He cannot therefore hear with the ears, as other people do. But for precisely that reason, his visual experience has an auditory dimension that is missing for most people with normal hearing, placed in similar situations.

Much has been made of the phenomenon of synaesthesia, the apparent capacity of certain perceivers to register an experience in one sensory modality on the basis of sensations delivered in another. The synaesthetic may, for example, claim to see certain forms or colours on hearing a musical melody, or to hear particular sounds on watching a silent movement. Wright's report of hearing the flight of distant birds might well be taken as an instance of the latter. Yet built into the very definition of synaesthesia is a two-fold distinction between sensation and perception on the one hand, and between discrete sensory modalities on the other. Following both Gibson and Merleau-Ponty, I have suggested that the eyes and ears should not be understood as separate keyboards for the registration of sensation but as organs of the body as a whole, in whose movement, within an environment, the activity of perception consists. 'My body', as Merleau-Ponty puts it, 'is not a collection of adjacent organs but a synergic system, all the functions of which are exercised and linked together in the general action of being in the world' (1962: 234). Sight and hearing, to the extent that they can be distinguished at all, are but facets of this action, and the quality of the experience, whether cast in light or sound, is intrinsic to the bodily movement entailed, rather than possessed 'after the fact' by the mind. So if I hear the flight of birds it is because, following their course across the sky, the movement of my own body – of my eyes, of my hand, indeed of my entire posture – resonates with theirs. From this point of view, the 'problem' of synaesthesia simply vanishes.

For Zuckerkandl, too, when Dante speaks of Hell as 'a place dumb of all light', or when Goethe declares that light 'trumpets', they are referring not to synaesthesia but to 'a real perception through the eyes, but which nevertheless has the characteristics of hearing' (1956: 341). Under all normal circumstances, Zuckerkandl maintains, this kind of

perception is overshadowed by the ordinary sight of things, and re-emerges only during rare moments of ecstasy when the boundary between the perceiver and the world appears to dissolve. But for the new-born baby, opening its eyes upon the world for the first time, or the previously blind person to whom sight has been restored through a medical procedure, the experience must be overwhelming. As William James wrote, with acknowledgement to Condillac, 'The first time we see *light* . . . we *are* it rather than see it' (James 1892: 14). Light – or 'I can see', which is another way of saying the same thing – is in this situation quintessentially an experience of being. Ihde notes that the first impressions of a blind person, on gaining sight, are often reported to be akin to those of listening: the patient 'is impressed by what we might call the *flux* and *flow*' (Ihde 1976: 63).[19] For the baby, of course, there are not yet *things* to be seen, for the separation of the self from the world, and the consequent process of objectification, have hardly begun. But long before it first opens its eyes, the baby can already hear quite well. For every new-born, as Schafer says (1985: 96), hearing precedes vision. Thus while Berger (1972: 7) may be right to say that in the life of the child, 'seeing comes before words', it is still the case that the infant hears the sounds of speech, and above all its mother's voice, long before it can see. It is therefore entirely understandable that the earliest visual perception should be experienced as a hearing with the eyes.

The conclusion to be drawn from this, as Zuckerkandl recognises, is that the 'normal' function of the eye – 'the perception of things in places' – is not given from the start but is the result of a development in the field of vision, 'whose earlier stages are not so sharply differentiated from hearing as later ones' (1956: 342). From this conclusion, Zuckerkandl launches into an argument which, by his own admission, is entirely speculative, but which is nevertheless of profound significance for the anthropology of the senses. If vision gradually diverges from hearing in the life-history of the individual, could this not also occur, along the same lines and through similar stages, in the evolution of culture? Could the congruence of sight and hearing, so quickly overtaken in individual development, have once characterised an entire epoch? And could it persist, perhaps, in the 'magical abilities of . . . primitives, . . . based upon a direct seeing of space as force, a dynamic communication between within and without'? If so, then 'we should have in music the miraculous echo of a world that once lay open to sight' – a world that otherwise survives only in the visual arts, especially painting (1956: 343–5). While the ontogenetic and evolutionary assumptions built into this argument, and especially the identification of 'primitive' perception with that of children, may no longer be acceptable today, Zuckerkandl's remarks nevertheless suggest something very important, namely, that the distinction between vision and hearing, as generally understood in the Western tradition, is not natural or universal to humanity but the outcome of a specific historical development. In comparisons between Western and non-Western societies, therefore, the distinction cannot form part of the explanation for differences in sensory experience, but is part of what has to be explained.

The sensory experience of blind and deaf people

It is now time to return to the two thought experiments with which I began. To recall, in the first you listen blindfold to the sound of an oncoming train; in the second you watch it pass with your ears plugged. In the one case, you suppose, the sound gets inside you and shakes you up; in the other it is as though the train glided by in a world apart from the one you inhabit. Now these experiments do indeed tell us much about the ways we

imagine vision and hearing to work. But they turn out to be a poor guide to what is actually going on, at least in the case of people whose eyes and ears are functioning normally. Seeing with the ears stopped is qualitatively different from seeing without, for the simple reason that a good deal of the information controlling the movements of the *organs* of sight, including the eyes, head and whole body, is picked up by hearing. Without that information, vision is disoriented, which is precisely why, in the second experiment, your visual attention seemed so detached from the train's movement. Conversely, hearing blindfold is qualitatively different from hearing with one's eyes open, for although the ears (unlike the eyes) are immobile relative to the head, hearing is affected by head and body movements which are partially guided by information picked up by the operations of sight. Again, it is the lack of such information, and the ensuing loss of auditory control, that accounts for the violence with which the sound of the unseen train seems to assault your senses.

If our experiments mislead us when it comes to normal vision and hearing, could they nevertheless tell us something about the experience of people who are deaf or blind? Is the deaf person, of necessity, an impassive observer of things in a world from which he or she feels somewhat alienated? And are the blind, conversely, participants in a world in which all is movement and becoming, yet inevitably at the mercy of its currents? Such views are commonly encountered; I have already cited, as an example, a passage to this effect from Zuckerkandl. They are not, however, supported by the testimony of blind and deaf people themselves. These people do not feel that their experience of the world is any less complete, or has any less integrity, than that of anyone else. In this respect it is quite unlike the experience of normally sighted and hearing persons, on finding themselves suddenly but temporarily blinded or deafened. Is it the case, then, that those for whom blindness or deafness is a permanent condition compensate for the lack of one sense by augmenting the powers of those remaining? Once again, the answer appears to be 'no'. Indeed David Wright, speaking as one who is profoundly deaf, argues that the theory of compensation is a mistake, and an irritating one at that (Wright 1990: 12, 111). It is in error for two reasons: first, aural perception actually deteriorates when it is not oriented by vision, and vice versa; and secondly, the theory mistakes a heightened sensitivity to specific movements – aural or gestural – which are critical for the interpretation of what is going on for a general enhancement of the sense as a whole. Blind and deaf people, like everyone else, sense the world with their whole body, and like everyone else, too, they have to cope with the resources available to them. But their resources are more limited, and for this there is absolutely no compensation. The life of the blind person, as John Hull puts it, 'is experienced as being intact, although the scope of activity has in many ways become smaller'. It is not like a round cake from which a substantial slice has been cut out. It is more like a smaller cake (Hull 1997: xii).

Granted that the experience of the blind or deaf person is not any particular segment, or 'cut', of the total experience of the visually and aurally unimpaired, but is a totality of a very different kind, I believe (with Ihde 1976: 44) that we can still learn a great deal about how visual and auditory perception work – even for people with normal sight and hearing – from a comparison of these different experiences. The comparison is of course complicated by the fact that there are individual variations in degrees of blindness and deafness. In what follows I shall assume the total non-functioning of eyes and ears respectively. I begin with blindness, drawing on the superb and extremely moving account by John Hull of his own experience of going blind, and of adjusting to this condition, as an adult. The account is revealing in two ways. First, it highlights features of visual perception that we normally rely on but tend to take for granted, by bringing out the problems

that ensue from their absence. Secondly, it reveals unexpected properties of aural perception that are critical for the blind, but which may be equally at work among sighted people although not recognised for what they are. Apropos the first, I shall focus on eye-to-eye contact; apropos the second, I shall consider the phenomenon of echolocation. As a prelude to both, however, a few general remarks are in order about how blind and sighted people, respectively, perceive the space around them.

Being blind

There is much in Hull's account that corroborates the ideas of Hans Jonas, reviewed in an earlier section. The perception of the blind person, dependent as it is on touch and hearing, is fundamentally suspended in the current of time. Visual space is presented to the sighted all at once, but tactile space has to be assembled by the blind, bit by bit, through a repetitive and time-consuming exploration with the fingers. Thus the blind person may take days 'to discover what the sighted person will grasp in a split second' (Hull 1997: 183). Acoustic space is similarly temporal. Unlike the objects of touch, however, which can always be touched again, the manifold inhabitants of acoustic space have an ephemeral nature, passing in and out of existence along with the sounds they make. This is not a world of being – 'the silent, still world where things simply are' – but a world of becoming where there is only action, and where every sound marks a locus of action (pp. 72–3). In this world, 'sounds come and go in a way that sights do not' (pp. 145–6). So do the agents, especially people, who make the sounds. As a sighted person, I can see when someone else is in the room before he or she begins to speak or approaches to shake my hand. But for the blind person, the voice or handshake comes from nowhere. One has the feeling of being grasped or accosted, unable either to resist or to choose one's assailant (p. 87). Other people, with their voices and tactile gestures, appear suddenly and disappear equally abruptly. 'The intermittent nature of the acoustic world', Hull writes, 'is one of its most striking features' (p. 73). The seen world can never escape one's eyes, it is always there, and one can return to it again and again. But the world of sound escapes as fast as it comes into being. And the sound that has passed can never be recovered (p. 145).

Can the blind person, then, ever enjoy an experience comparable to that of the sighted, of being placed in something like a landscape that can be taken in as a totality, with its infinitely variegated surfaces, contours and textures, inhabited by animals and plants, and littered with objects both natural and artificial? There is one circumstance in which this is possible, in Hull's experience, namely when it is *raining*. For the sounds of raindrops, which are perceived to come not from any particular point but from all quarters at once, reveal in every detail the surfaces on which they fall. 'Rain', Hull writes, 'has a way of bringing out the contours of everything; it throws a coloured blanket over previously invisible things; instead of an intermittent and thus fragmented world, the steadily falling rain creates continuity of acoustic experience . . . This is an experience of great beauty' (1997: 26–7). There is indeed a certain parallel between the ecstasy of hearing that Hull describes and what, for the sighted, I have described as the astonishment of vision, when the world is revealed to the seer as though the fog in which it had been enveloped were lifted, and he or she were gazing upon on it for the first time. Rain does for the blind what sunshine does for the sighted, bathing the world in sound as the sun bathes it in light. Immersed in the audible, to borrow and adapt Merleau-Ponty's words, the listener opens himself to the world: 'My body and the rain intermingle, and become

one audio-tactile, three-dimensional universe, within which and throughout the whole of which lies my awareness' (Hull 1997: 120).

Now in my earlier discussion of the maxim 'vision objectifies, sound personifies', I noted that it is closely bound in the Western tradition with a certain construction of the person, according to which an inner essence, identified with the voice, is supposed to hide behind – but nevertheless to sound through – an outer mask identified with the face. The voice can be heard, the face seen – unless, that is, one is in the company of another who happens to be blind. Yet the view is commonly expressed that for the blind their inability to see the faces of others can be a positive advantage. For they are not, like the rest of us, susceptible to outward impressions. Thus did David Hume, in the eighteenth century, address a blind acquaintance, the Edinburgh poet Thomas Blacklock: 'Your passion . . . will always be better founded than ours, who have sight: we are so foolish as to allow ourselves to be captivated by exterior beauty: nothing but beauty of the mind can affect you' (cited in Rée 1999: 40). In our present times the blind French writer Jacques Lusseyran takes the same view: the blind inhabit a world 'free of the deception of physical appearances, where what and how something is said reveals its true purpose' (cited in Hill 1985: 109). But in Hull's experience matters are not that simple. For him the face is not a mask but is as intimately bound up with the life and identity of the self as is the voice. And of all the components of the face, the most revealing, and the topic of our greatest attention and fascination, are the eyes.

If there is a critical difference between face and voice, it is not so much that one is seen and the other heard, than that you can hear your own voice whereas you cannot see your own face. 'I live in the facial expressions of the other', writes Merleau-Ponty, 'as I feel him living in mine' (1964b: 146). From this stems what John Berger calls 'the reciprocal nature of vision' – a reciprocity that is even more fundamental, in Berger's view, than that of spoken dialogue. For in eye-to-eye contact, he writes, 'the eye of the other combines with our own eye to make it credible that we are part of the visible world' (Berger 1972: 9).[20] Thus your visibility, your identity, indeed your very existence as a person, is confirmed in the sight of others. In normal circumstances, to see another person is to know you can be seen by them; to see a place is to know that you could, in principle, be seen by someone standing there. But when the other person is blind the reciprocity of vision breaks down. Suppose that I am sighted and you are blind: while I can see your face, I am also aware that you are not looking at me. It seems that I am not there for you. But not being able to see the faces of others leads you to imagine that others, conversely, cannot see you. Hull vividly describes the nagging fear of having no face, the loss of consciousness associated with perceived invisibility. 'Because I cannot see, I cannot be seen . . . It would make no difference if my whole face disappeared. Being invisible to others, I become invisible to myself'. It requires a real effort of will, if you are blind, to remind yourself that you can still be seen (Hull 1997: 51–2).

Far from leading to deep intersubjectivity, to a greater sense of belonging, connectedness and participation, as the received stereotype implies, blindness results – at least in Hull's experience – in an overwhelming feeling of distance and withdrawal. 'People', as he puts it, 'become mere sounds', and 'sounds are abstract' (1997: 21, 48). For him, quite contrary to conventional wisdom, vision personifies, whereas sound objectifies. Hull writes as one who has been fully blind for only a few years: he knows very well what it is like to be able to see the faces of others, and what he says must surely resonate with the experience of every sighted person. Why then, against all the evidence of our senses, do we cling to the illusion that sight is inimical to sociality, that it individualises, isolates and

abstracts? Is it because we take, as a prototypical scenario of vision, the situation of looking *at* an inert, opaque object, rather than that of looking *into* the eyes of an active, lively subject – whose eyes are also looking into one's own? If so, does this not provide further proof of what has already become apparent from my first critique of the anthropology of the senses: namely, that it is not vision that objectifies the world, but rather the harnessing of vision to a project of objectification that has reduced it to an instrument of disinterested observation? Our very familiarity with the reciprocal, intersubjective nature of vision, it seems, has conspired to hide it from us. It becomes the tacit ground against which is projected an explicit image of vision as the sight of things.

Blind people, of course, cannot see things any more than they can see faces. But they can listen to them. Blind participants in a study conducted by Miriam Hill reported listening to mailboxes, signs, openings, doors, posts, poles and trees, as well as 'the sounds that bounce off buildings' (Hill 1985: 102). The ability to perceive objects in this way, beyond the reach of touch, seems to be based on a principle of echolocation. Just as for the sighted, recalling Gibson's argument, the presence and forms of environmental objects are revealed through modulations in the array of reflected light reaching the eyes of a moving observer, so for the blind they are revealed through modulations in the array of reflected sound. Yet it is not only the ears that are at work in this process. 'What the blind person experiences in the presence of an object', as Lusseyran explains, 'is pressure' (cited in Hill 1985: 107). Hull reports on precisely the same experience, describing the pressure as sometimes so intense that one instinctively wants to put up a hand to the face to protect oneself.

> One shrinks from whatever it is. It seems to be characterised by a certain stillness in the atmosphere. Where one should perceive the movement of air and a certain openness, somehow one becomes aware of a stillness, an intensity instead of an emptiness, a sense of vague solidity.
>
> (Hull 1997: 23)

For the blind actor-musician Tom Sullivan, it seemed that he could feel, on his face, waves of air that had been pushed away by the body during movement and returned at an angle from some obstacle (Sullivan and Gill 1975: 68). He called this 'facial vision'. Not surprisingly, it does not work well in windy weather (Hill 1985: 103).

There is some doubt, then, as to whether facial vision is a form of hearing or of touch: indeed the phenomenon raises in a peculiarly acute form the problem of the distinction between these sensory modalities. Hull claims that 'the sense of pressure is upon the skin of the face, rather than upon or within the ears' (1997: 24). Elsewhere he describes the sensation of being in an empty building as one that goes beyond mere hearing; 'there must be a certain sensitivity of the entire body to vibrations and to air pressure as well as to inaudible echoes' (p. 85). Evidently the same vibrations which, as they excite the membrane of the ear, are discerned as sound can also excite receptors distributed over the skin, but are then discerned as 'pressure'. Paul Rodaway (1994: 50) regards facial vision as a form of 'global touch', by which he means the body's general contact with the environment, across all its surfaces. But as he points out, it could just as well be described as a subtle form of auditory perception. The implication, that we hear not just with the ears but with the whole body, is, as we shall see in a moment, of great significance for understanding the sensory experience of the deaf. For the present, I should like to conclude my discussion of the experience of blindness with three points.

First, the clear distinction that sighted people are inclined to make between touch and hearing may in fact be a *consequence* of vision, and of the precise delineation of tangible surfaces, at the interface between solid objects and the surrounding medium, that it affords. This may be why the multimodal feeling-hearing of the blind, which is neither touch, echo, nor motion but a blending of all of these, may be so hard for the sighted to grasp (Hill 1985: 104). Secondly, the commonplace supposition that vision is inherently spatial and hearing inherently temporal needs to be qualified. Through the principle of echolocation, hearing *can* disclose a world of stable forms – of things in their places – just as vision can. And while it is true that such disclosure depends upon the perceiver's motion relative to the perceived, the same is equally true of vision (Rodaway 1994: 124–5). In essence, both looking and listening are aspects of a movement that, being generative of both space and time, is ontologically prior to any opposition we might draw between them. Thirdly, it seems probable that even sighted people, albeit unawares, are significantly guided by echolocation or 'facial vision' (Ihde 1976: 67–70). They simply do not pay any attention to it. As Rée writes, for all of us 'becoming acquainted with buildings or landscapes is partly a matter of getting to know their acoustic profiles – listening to the sounds they produce and the echoes they give back' (1999: 53). To be at home in a place, especially in the dark, means knowing how it sounds and resounds.[21] Thus listening is just as much a means of active inquiry and of orienting oneself in the world as is looking.

Being deaf

Turning now to the experience of the deaf, there are two aspects of what Wright aptly calls 'deafmanship' (1990: 113) on which I want to focus. For the first, I return to the point that we hear with the whole body, in order to bring out the range of auditory experience even for people who, like Wright himself, have no use of the ears whatever. Secondly, I refer to the sign language of the deaf, in order to show that the contrast between hearing and vision as sensory modalities of verbal communication is far less fundamental than is commonly supposed. On the first point, and judging from Wright's autobiographical account, it seems that deafness is never absolute in the way that blindness can be (Wright 1990: 9, see Ihde 1976: 45, Rée 1999: 36–7). This is because what we experience as sound is caused by vibrations in surrounding media and surfaces, to which the ears are not alone in responding. Standing on a resonant surface such as wooden floorboards, one can 'hear' approaching footsteps through the feet. But one cannot do this if the surface is, say, of stone or concrete. In speech, one hears the sound of one's own voice, in part, through an internal conduction of vibrations set up in the bones of the head. Insofar as these vibrations bypass the mechanism of the ear, they may still be sensed by a speaker who is deaf. In addition, deaf people can judge the quality of their voice by placing a finger to their neck, at the location of the larynx, and they can likewise 'hear' the sound of a musical instrument, radio or record player by touching the sound box or amplifier (Rée 1999: 36).

But in these instances of 'touch-hearing', what is heard is nothing like the complete sound as it would be experienced by a listener whose ears are functioning normally. Much depends on the particular resonant properties of the surfaces with which one comes into contact, principally through the hands and feet. As a rule, however, the sound 'comes across as a blurred bumble of noise' (Wright 1990: 9). Timbre and pitch are indeterminate, but there is an overwhelming concentration on frequencies at the lower end of the spectrum. The sounds that can be 'heard' at these frequencies tend to be abrupt and

percussive, like explosions or the noise of heavy machinery. Since they cannot be placed within the finely differentiated acoustic field of background and foreground sounds such as is revealed by the ears, it is hard to pin them down to specific sources or locations. They tend, rather, to appear and disappear, suddenly and without warning. Moreover low-frequency external noise, picked up through bodily vibration, is easily confused with that generated internally in the course of normal metabolic and respiratory processes – of the kind that the doctor can 'hear' by means of a stethoscope (Rodaway 1994: 100–1, Rée 1999: 53–4).

Besides this touch-hearing, however, Wright reports on another kind of experience of sound, registered not through feeling but through *sight*. Only where nothing moves, as on a perfectly calm day, does the world appear to be shrouded in total silence. Upon the slightest movement, this silence is shattered. I have already referred to such experience as an instance of the 'sight of sound', exemplified in Wright's observation that 'birds, flying, sing with wings instead' (1990: 3, 11–12). Yet he admits that this 'visionary noise', unlike the palpable sensations of touch-hearing, is actually a thing of the imagination. It does not really exist. I have to say that I am not convinced by the implied distinction between real and imaginary sound. For even the sounds that people with normal hearing routinely describe as real are no less phenomena of lived experience, and it is perfectly clear from Wright's description of vision-hearing that the sounds he sees are, for him, every bit as vivid as are the sounds that other people hear, for them. Wright himself wonders whether his eye for sound may owe something to unconscious childhood memories, for deafness did not strike him until the age of seven. He recalls that at the time, he did not notice he was deaf, and only gradually became aware of his condition on account of his inability to pick up the sounds of unobservable movements like the ticking of a clock (1990: 22, see Rée 1999: 37). In the case of visible movements, the fact that his ears had ceased to function made no perceptible difference, at least at first, to what he heard. This surely furnishes compelling evidence for the view that even for the aurally unimpaired, hearing is critically guided by the 'antennae' of sight. And it fits with Hull's observation that when people go blind, their hearing does not improve but rather deteriorates (Hull 1997: 117).

Now when people are speaking to one another, the movements of their speech may be visible in the face, and especially the lips. This is the basis for the skill of lip-reading. It is normal, too, for speech to be accompanied, and amplified in its expressive force, by visible gestures of the hands. In communities of the deaf, gestural systems have been elaborated to the point of constituting languages in their own right, fully commensurate with spoken ones. These are conventionally known as signed languages (Armstrong, Stokoe and Wilcox 1995). Neither speech nor sign has quite the intimacy of eye-to-eye contact, since in both cases there is a functional differentiation, within the overall bodily system of perception and action, between the organs of sense and motion. In speech the division is between the ears and the voice; in sign it is between the eyes and hands. But as speech and sign are formally equivalent in this regard, the possibilities of establishing a direct, mutual involvement of self and other through sign must be just as great as they are through speech. This is the point at which to remind ourselves of what McLuhan, Ong and their followers have to say about the properties of thought and expression in the oral-aural modality. For setting aside the likelihood of deaf signers' familiarity with the written word, there seems no good reason to doubt that these properties should be attributable to the manual-visual modality as well.

Recall that for Ong, people in a primarily oral culture hear words not as things, as though they were looking at them, but as sound. Similarly for deaf signers, gestures are

movements to be watched, not objects to be looked at (Armstrong, Stokoe and Wilcox 1995: 83–4). There is no holding them still for inspection. Like speech sounds, signed gestures exist only in their passing. The fact that they are seen and not heard makes them no less fleeting, no more thing-like, than spoken sounds. Moreover the movements of the hands in gesture respond to visually perceptible movements in the signer's surroundings much as, in the oral context, speech sounds resonate to the properties of the acoustic environment, yielding the 'gestural iconism' that is such a pronounced feature of the signed language of the deaf – the precise counterpart of the phonological iconism in the speech of supposedly 'auditory' cultures such as the Umeda (Gell 1995: 247–8). Taking all these parallels into account, we can only come to the same conclusion as Jonathan Rée, in his study of the history of deaf education. 'The idea that there is a metaphysical gulf dividing communication by visible gestures from communication by audible words', he writes, 'is a fantasy without foundation, a hallucination rather than a theory' (Rée 1999: 323–4).

McLuhan and Ong, of course, were above all concerned to contrast the properties of speech and *writing*. Their mistake, as should now have become clear, was to imagine that these contrasting properties could be deduced from the differences between hearing and vision. The critical feature of writing, by which it is distinguished from both sign and speech, is that it is inscribed upon a durable surface. Is it, then, their inscription, and not just their visibility, that renders words as things? Not exactly, for the perception of inscriptions as objects depends upon a still more limited set of conditions. The trace of a gesture, such as the calligrapher's brush stroke, may be apprehended as a movement in just the same way as the gesture itself. In this, the reader's eye follows the trace as it would follow the trajectory of the hand that made it. The written word is perceived as a thing only when it is read not as the *trace* of a visible gesture but as the *representation* of a vocal one. Thus, lurking behind the argument that writing leads us to see words as 'quiescent objects' (Ong 1982: 91) lies an assumption, still widespread even among linguists, that the only proper languages are spoken languages, and therefore that writing exists for the sole purpose of representing the sounds of speech. This phonocentric assumption betrays a deep-seated and obstinately persistent prejudice to the effect that manual signing is an imperfect form of communication that scarcely qualifies as 'language' at all.[22] And it is precisely this disqualification of gesture from language proper that has given rise to the idea that language can be made visible in no other way than through the representation of speech in writing.

The interchangeability of visual and auditory perception

In conversation with Georges Charbonnier, the painter André Marchand describes his perception of the visible world as one in which he is already submerged, and which opens up to him, as it were, on the inside:

> For example, in a forest, I have felt many times that it was not I who was looking at the forest. On some days I have felt that it was the trees that were looking at me, that were speaking to me. For myself, I was there . . . listening.[23]
>
> (Charbonnier 1959: 143)

This experience is surely familiar to anyone who has wandered in the woods. There are two aspects of it to which I want to draw attention. First, it lends compelling support to the idea of the reciprocity of vision, to which I have already alluded in connection with

the ordeals of blindness. Unable to see, the blind person becomes convinced of his own invisibility, as though his very existence were thrown into question. Conversely, to 'be there', to have a presence in the world, and so to be able to see, is to exist in the sight of others. Thus we feel that the trees around us have eyes and are looking at us, for if they were not, where would *we* be? Secondly, notice how readily Marchand slips from the language of sight to that of sound. The trees look, but they may as well be speaking; we watch, but we might as well be listening. It is to this interchangeability of visual and auditory perception that I now wish to turn.

I begin with a musicological example, which takes us back to Zuckerkandl's question of whether it is preferable to listen to music with the eyes open or closed. In his autobiography, the composer Igor Stravinsky argues passionately for the former view. 'I have always had a horror', he writes, 'of listening to music with my eyes shut, with nothing for them to do. The sight of the gestures and movements of the various parts of the body producing the music is fundamentally necessary if it is to be grasped in all its fullness' (Stravinsky 1936: 72). Watching the movements of the drummer, the violinist or the trombonist gives shape and direction to our hearing, which would otherwise be empty and aimless. We hear less well with the eyes closed, according to Stravinsky (and as Hull also found with the onset of his blindness), since we lose this visual steering of auditory perception. Cut loose from the bodily movement of its production, musical sound appears abstract and incorporeal. It has often been remarked of hearing that it is a passive sense, that all it can do is succumb to imperatives issuing from the outside world. Jonas, for example, maintains that 'in hearing, the percipient is at the mercy of environmental action' (1966: 139), while for Adorno, hearing appears 'dozy and inert' (1981: 100). It is just this kind of passive hearing, as 'mere supine susceptibility' (Rée 1999: 53), that Stravinsky attributes to those who like to listen to music with their eyes shut. Such people, as he caustically remarks, far from listening to the music itself, prefer to 'abandon themselves to the reveries induced by the lullaby of its sounds' (1936: 73). They allow the sound to wash over them – or to 'float through experience', as Ihde (1976: 78) puts it – oblivious to the fact that it is being produced by players with instruments. Once we open our eyes, however, we cease to be mere consumers of sound, and join silently in the process of its production. Hearing is roused from its slumber, and becomes active and engaged.

This leads us to a conclusion of paramount importance. If hearing is a mode of participatory engagement with the environment, it is not because it is opposed in this regard to vision, but because we 'hear' with the eyes as well as the ears. In other words, *it is the very incorporation of vision into the process of auditory perception that transforms passive hearing into active listening*. But the converse also applies: it is the incorporation of audition into the process of visual perception that converts passive spectating into active looking or watching. That is why Marchand found that in looking at the trees – which were also looking at him – he was also silently listening to them. He was 'looking' with the ears as well as the eyes. Marchand's experience would be entirely familiar to the Koyukon people, who follow a life of hunting, trapping and fishing in the forests of Alaska. They 'live in a world that watches', according to their ethnographer Richard Nelson, 'in a forest of eyes' (1983: 14). But it is a forest of ears as well. The principal trees of the forest, namely spruce and birch, as well as many of its diverse animal inhabitants, are invested with spirits which, like people, can hear as well as see. That is why, for the Koyukon, it is always important to be careful in what you say, so as not to cause any offence. They see because you see; they hear because you hear. But whether on the side of people or spirits, it is the element of auditory attention that converts vision into watchfulness.

Among the Yup'ik Eskimos, too, there was a similar awareness that people are constantly under the watchful scrutiny of spirits. The cosmos itself (*ella*) – sentient, knowing and responsive – was conceived as an immense eye, but it was one that could hear as well as see. It could also smell. Thus for their own and everyone else's safety, mourners and menstruating women were subject to restrictions such that they 'remained odorless, inaudible, immobile, and invisible to the eye of *ella*' (Fienup-Riordan 1994: 248). The knowledge that the eye of *ella* was watching, and that human activities were visible to the spirit world, controlled every aspect of everyday Yup'ik life. To witness a spirit directly was to see it as a *face* which, like the cosmos itself, was circular in form and centred on the eyes. However the face was not a mask covering over the *persona* of the spirit, and through which its voice could be heard. To the contrary, the face would be revealed through a process of unmasking akin to the retraction of a hood – a dissembling of outward appearance as given to ordinary, quotidian vision so as to uncover the being within. To encounter another person 'face-to-face' was not, therefore, to be set over against them, as in the image of the *vis-à-vis*, but to be enveloped in the intense, intersubjective intimacy of eye-to-eye contact. Unmasked, the eyes of the spirit would literally catch the glance of the beholder in their sight. But this implies that as an aspect of being, the face is as much on the 'inside' as is the voice. If the voice is the sound of being, then the face is its look.[24] And hence, too, to listen to another person, whether human or spirit, is equivalent to looking at them. As one Yup'ik man explained: 'A speaker will not scold you for looking at him too much. But looking all the time while someone is teaching, that is how one must keep listening' (Joe Beaver, in Fienup-Riordan 1994: 316). To this, Fienup-Riordan adds that 'watching a person's face . . . was particularly revealing'.

Some sort of distinction is nevertheless entailed, here, between two kinds – or levels – of vision: on the one hand, the ordinary sight of pre-existing things that comes from moving around in the environment and detecting patterns in the ambient light reflected off its outer surfaces; on the other hand, the revelatory sight experienced at those moments when the world opens up to the perceiver, as though he or she were caught up in the movement of its birth. This distinction is effectively equivalent to the one I introduced earlier, in comparing the theories of visual perception of Gibson and Merleau-Ponty, between vision as a mode of *participation* and as a mode of *being*. In neither case can vision be radically separated from hearing. In the former, as I have shown, it is the co-option of hearing by vision that turns merely contemplative seeing into active looking or watching. In the latter, our inquiry into the convergences between what Merleau-Ponty and Zuckerkandl have to say, respectively, about the painterly apprehension of light and the musical apprehension of sound, showed that they were, in principle, all but indistinguishable. To illustrate the contrast between these two levels of vision, and the different relations with hearing involved in each, I turn briefly to another example.

Earlier, I told of how I know the cuckoo by its sound, and that only through being seen does it come to be perceived as a thing that makes a sound. Among the Ojibwa, indigenous hunters and trappers of the Canadian North, there is said to be a bird whose sound, as it swoops across the sky, is a peal of thunder. Few have seen it, and those who have are credited with exceptional powers of revelatory vision (Hallowell 1960: 32; see Chapter Six, pp. 92–3, 99, for a more detailed account based on Hallowell's ethnography). What is the difference, then, between seeing a cuckoo and seeing a thunderbird? Birdwatchers would surely be among the first to recognise the importance of hearing to active, exploratory vision. Listening out for birdsong and other sounds – the beating of wings, or the rustling of leaves – the watcher's sight homes in on the source from which

these sounds issue. Thus the organs of hearing constitute an auditory guidance system that serves to orient vision towards its target. The enigma of the call, *cuc-koo*, emanating from somewhere in the trees, is resolved as soon as we spot the bird that is producing it. Naming the bird by the sound of its call, we regard it as just another individual of a species, a living thing, whose presence and activity, moreover, are unaffected by the watcher's neutralising gaze.

The thunderbird, by contrast, is not a thing of any kind. Like the sound of thunder, it is a phenomenon of experience. Though it is by thunder that the bird makes its presence heard, this sound is not *produced* by the thunderbird as the cuckoo produces its call. For the thunder *is* the bird, in its sonic incarnation. Therefore to see it is not to resolve the cosmic mystery of the sound, as though one could take a step back from one's involvement in the world and say 'Oh, so that's where it's coming from!' One is rather drawn further in. The bird presents itself to vision as an experience of light in just the same way that it presents itself to hearing as an experience of sound. If sound, here, is intrinsic to sight, this is not because it guides vision towards its object but because *hearing is seeing*. As a specific form of the experience of light, the thunderbird is not set over against the perceiver as an object of vision, but invades the perceiver's consciousness, whence it is generative of his or her own capacity to see. Much the same could be said of the experience of sunlight or moonlight, and indeed the sun and moon are apprehended by the Ojibwa, along with the thunderbird, as beings of similar kind. They are, in short, not so much visible things as manifestations of light.

Whereas in Western society such revelatory vision is the province of the painter, in many non-Western societies it is closely associated with the activities of the shaman. The metamorphosis of sound into light and vice versa – that is, hearing with the eyes and seeing with the ears – is peculiarly characteristic of shamanic practice. A fascinating example of this phenomenon has been documented among the Shipibo-Conibo Indians of eastern Peru by Angelika Gebhart-Sayer (1985). In a ritual of healing the shaman, suitably entranced, becomes conscious of an aura of radiant light that seems to float towards him, covering the surfaces on which it falls with elaborately reticulate, geometric designs. Where they touch his lips, these luminescent designs are at once converted into melodious song. The shaman sings along with his attendant spirits, and other villagers (who hear only the shaman's voice) join in, following his example. As the combined voices are wafted through the air, they turn once more (though only in the shaman's sight) into designs that penetrate the patient's body and settle there, becoming ever clearer as the cure proceeds (Gebhart-Sayer 1985: 162–4). The shaman's songs, as Gebhart-Sayer puts it, 'can be heard in a visual way, . . . and the geometric designs may be seen acoustically' (p. 170).

The designs themselves are of extraordinary intricacy, and were once recorded on cotton fabric sheets bound into 'books' – leading to speculation that the Indians in this region might have possessed a form of hieroglyphic writing. None of these books survive today, but the villagers among whom Gebhart-Sayer carried out her fieldwork recalled that an old man from a nearby village, the son-in-law of a shaman, had kept a school exercise book whose pages were filled with minute red and black patterns. One woman remembered how, as a child, she had managed secretly to get hold of the book and to copy four of the designs before being caught and scolded by her grandmother. She claimed never to have forgotten them, and was able to redraw them from memory (Gebhart-Sayer 1985: 155). One of her drawings is reproduced in Figure 14.2. It is not hard to see why European observers should have been moved to compare such graphs to writing. It seems, on the face of it, that the Shipibo-Conibo shaman apprehends the sounds of song in much the

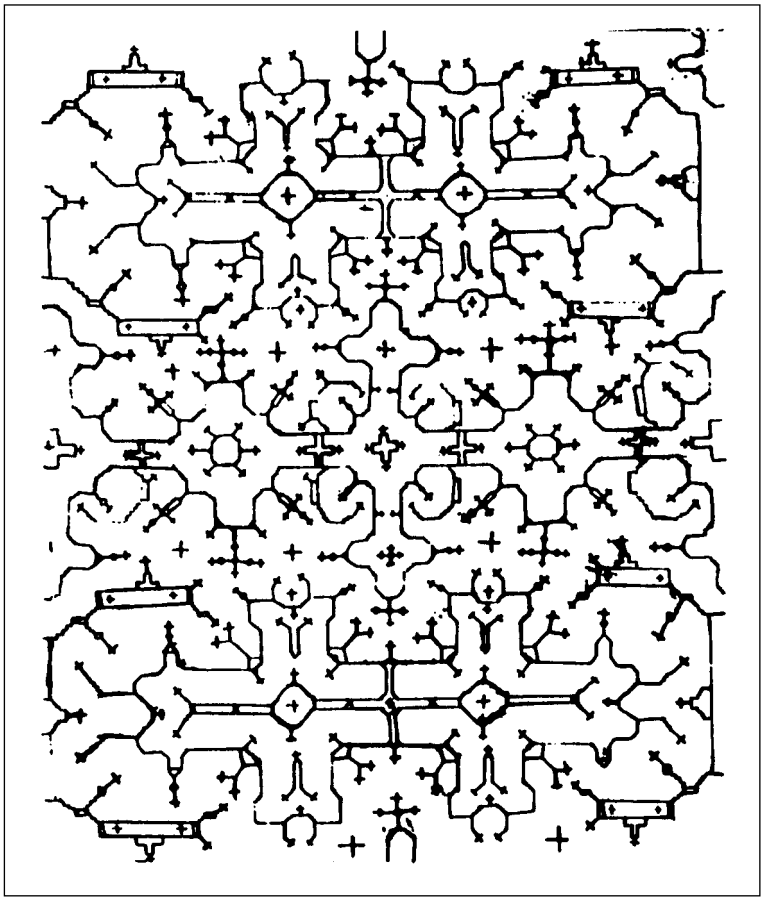

Figure 14.2 One of the designs from the sacred book of a Shipibo-Conibo shaman, drawn from memory by a woman from the village of Caimito in 1981.

Reproduced from A. Gebhart-Sayer, The Geometric Designs of the Shipibo-Conibo in Ritual Context, *Journal of Latin American Lore*, 11: 2, 1985, p. 158.

same way that people in the literate West are supposed to apprehend the sounds of speech – that is, as if they were looking at them. The geometric design lodged in the shaman's vision bears an uncanny resemblance to the Saussurian 'sound-image'. And if the written word is a transcription of the image from the mind onto paper, could not the same be said of the graphic designs in the shaman's 'books'?

It is true that in a sense, the Indian shaman 'sees' songs, and that in another sense, people raised in the Western tradition of print literacy 'see' spoken words. But the senses of seeing adduced in these two instances could not be more different. This difference corresponds, rather precisely, to the way in which Western thinkers have conventionally distinguished vision from hearing. To recall Zuckerkandl's formulation, it is the difference between the experience of a world 'out there', and that of a world coming 'from-out-there-toward-me-and-through-me' (Zuckerkandl 1956: 368). For the Westerner to see words is to apprehend them as things, exterior objects to be grasped by way of the

images or representations that are formed of them in the mind. The shaman's vision, by contrast, is not a seeing of things but an experience of light, which is felt to be streaming towards him and into him. As it does so it turns to sound. It is at the interface where inflowing light is converted into outflowing sound that the designs are generated in his perception. In the healing ritual, this conversion takes place upon the shaman's lips. Thus where the design is inscribed upon a surface, such as cotton fabric or paper, that surface is transformed into an interface of the same kind as the lips. This immediately makes sense of native claims to the effect that the surface, with its designs, speaks directly to the person who 'reads' it (Gebhart-Sayer 1985: 154).

If this is indeed reading, then it is more akin to lip-reading than to the reading of the written word. In the graphic traces on the page of the shaman's book the voice is rendered visible, just as it is, for the deaf lip-reader, in the movements of the speaker's lips and face. As the eye of the beholder follows the traces, his lips move to pronounce the corresponding sounds. This interpretation is corroborated by Peter Gow, in a study of reading and writing among another native people of the Peruvian Amazon, the Piro. The study focuses on the story of one man, Sangama, reputed to be the 'first Piro who could read'. According to the story, told in the 1940s by his younger cousin Zumaeta, Sangama used to pick up printed books and newspapers and read them, 'his eyes following the letters and his mouth moving' (Gow 1990: 91). What he saw, however, were not words on paper. He saw the paper itself as the red painted lips of a woman, speaking to him. And he was convinced that this was what his European bosses saw when they read their newspapers: 'When the white, our patron, sees a paper, he holds it up all day long, and she [the paper] talks to him . . . The white does that every day' (in Gow 1990: 92–3). If Europeans were predisposed to treat Indian designs as an instance of writing, what could be more natural than for the Indian, Sangama, to treat the printed texts of European books and newspapers as instances of design? Sangama's claim to be able to read, as Gow shows, was based on his understanding of shamanic practice. In accord with this understanding, he approached the graphs on the page not as 'representations' or 'symbols' of vocal sounds, but as the voice itself, shining forth as a pattern of light. It is probably along these lines, too, that we should interpret Seeger's observation that among the Suyá, another Amazonian people, visual designs such as weaving patterns are seen acoustically. On learning such a design, they say 'It is in my ear' (Seeger 1975: 214).

The anthropology of the senses: a second critique

We can now pick up the threads of my critique of the anthropology of the senses, from where I left off earlier in this chapter. The common flaw, running through all the work in this field that I have reviewed so far, lies in its naturalisation of the properties of seeing, hearing and other sensory modalities, leading to the mistaken belief that differences between cultures in the ways people perceive the world around them may be attributed to the relative balance, in each, of a certain sense or senses over others. Thus it is supposed that where vision predominates, people will apprehend the world in one way, and where hearing predominates they will apprehend it in another. This approach is exemplified in the work of David Howes, who formulates the key question in the anthropology of the senses as follows: 'What is the world like to a culture that takes actuality in less visual, more auditory or olfactory, gustatory or tactile terms than those to which we are accustomed?' (Howes 1991a: 6). By 'we' he means people of modern Western societies, steeped in a hyper-visual aesthetic that turns the world into a spectacle laid out before the 'detached

and observing eye' (Romanyshyn 1989: 31). As an antidote to this kind of spectacular vision, epitomised by the representational techniques of linear perspective, Howes invites us to consider the graphic designs of the Shipibo-Conibo Indians, such as the one reproduced in Figure 14.2. Unlike the perspective drawing where everything is geometrically fixed in its proper place, these designs, he says, fairly *pulsate* (Howes 1991a: 5).

What is the explanation for this contrast? Why should the impact of Shipibo-Conibo shamanic designs be so very different from that of the drawings of Renaissance draftsmen? For Howes the answer lies in the 'pluri-sensorial' quality of the Shipibo-Conibo aesthetic, as against the 'almost exclusively visual' aesthetic of the West. He seems to think that vision is an inherently objectifying sense, that it naturally sets things off at a distance from the observer, but that these distancing effects can be counteracted by adding liberal doses of non-visual experience to the sensory mix. Thus in shamanic healing, the luminescent designs mingle with songs and fragrances to bring about a cure, whereas in the viewing of Renaissance art sounds and smells are screened out, leading to a stultification of the non-visual senses and a corresponding stepping up of 'the natural power of the eye to survey things from afar' (Howes 1991a: 5–6). This is hardly a convincing argument, however. For one thing, it is no more in the nature of the eye that it should function as an instrument of detached speculation than that it should open the seer to experiences of the most intimate revelation. Besides, it is simply not the case that people in Western societies exercise their powers of sight in an environment sheltered from acoustic and olfactory stimuli. Certainly, the sight of designs moves the Shipibo-Conibo shaman to song, and the odours of selected plants form an important part of the ambience of the healing ritual (Gebhart-Sayer 1985: 171–2). Yet who would deny the power of fragrance and song, alongside visual images of sacred significance, in the Catholic Mass? The aesthetic experience of the Western church-goer is surely just as 'pluri-sensorial' as that of the participant in a Shipibo-Conibo ceremony. Adding more sounds and smells will not make any difference to the way he or she sees.

If the centrality that the Western tradition accords to the eye were due to nothing more than an inattention to hearing, along with touch, taste and smell, then it could be easily corrected. So far as hearing is concerned, we would have only to speak up in praise of sound – which, in itself, would be no bad thing (Ihde 1976: 9). But as Ihde points out, the situation is complicated by the fact that the reduction *to* vision, in the West, has been accompanied by a second reduction, namely the reduction *of* vision. One cannot escape this reduction, inherent in the rhetoric of visualism, simply by erecting an antivisualism in its place (Ihde 1976: 21, see Feld 1996: 96). For its source lies not in any bias towards the eye over other organs of sense, but in what Johannes Fabian (1983: 123) calls a particular 'cognitive style' – one that is likely to prejudice our understanding of all kinds of perceptual experience, whether predominantly visual or not. It is in this style, rather than in anything to do with the ratio of the senses, that we find the answer to our question of how Renaissance drawing differs in its impact from Shipibo-Conibo design. Incorporated into Western techniques of depiction, it leads us to equate vision with visualisation – that is with the formation, in the mind, of images or representations of the world. Incorporated into techniques of anthropological analysis, however, this very same cognitive style is what leads us to regard the process whereby people 'make sense' of their world as a cultural construction of reality.

At the heart of this approach is a representationalist theory of knowledge, according to which people draw on the raw material of bodily sensation to build up an internal picture of what the world 'out there' is like, on the basis of models or schemata received through their education in a particular tradition. The theory rests on a fundamental distinction

between physical and cultural dimensions of perception, the former having to do with the registration of sensations by the body and brain, the latter with the construction of representations in the mind. And despite vigorous protestations to the contrary (Howes 1991b: 169–70), the anthropology of the senses remains fully committed to this version of Cartesian mind/body dualism. It turns out that it is not, after all, concerned with the varieties of sensory experience, generated in the course of people's practical, bodily engagement with the world around them, but with how this experience is ordered and made meaningful within the concepts and categories of their culture. Moreover the same logic that divides bodily sensation from mental representation, as a physical rather than a cultural fact, also reifies the senses as aspects of a universal human nature. In its movements and responses, such as in looking, listening and touching, the body may furnish symbolic resources for projects of cultural cognition, but it is not from these bodily processes themselves that culture springs. In short, to adopt a useful distinction from Csordas (1990: 40 fn. 2), the body with its various senses is taken to comprise the cognitive rather than the existential ground of culture (see also Chapter Nine, pp. 169–70).

This position is exemplified by Constance Classen, in her book *Worlds of Sense* (1993). Her concern here is quite explicitly with the expressive rather than the practical significance of sensory experience – that is, with the ways in which such experience may be selected, metaphorically, to 'stand for' the central concepts and values of a culture. These values and concepts add up to what she calls the *sensory model*. Thus Western culture, for example, has fastened on the experience of vision to signify the value of objective knowledge. In another culture, with a different sensory model, core values might be expressed through metaphors of hearing, or touch. This is what Classen means by the cultural 'shaping', or 'conditioning', of perception. 'Sensory models', as she insists, 'are cultural models, and sensory values are cultural values'. But just because here vision, or there touch or hearing, have been singled out as vehicles for symbolic elaboration, this does not mean that people will see, hear or touch any differently in consequence. Whether the mode of engagement with the environment of greatest practical importance to people is looking, listening, or touching, or some amalgam of these, is immaterial. What is important, so far as the 'cross-cultural exploration of sensory orders' is concerned, is that the meanings and understandings of the world gained through perceptual activity are *expressed symbolically* by way of metaphors drawn from one or another domain of sensory experience (1993: 135–7, see also Classen 1997).

The same objectification of the bodily experiences of looking, listening and touching, and their conversion into metaphorical resources for the expression of extra-somatic, cultural values, is also evident in the work of Howes. To his credit, Howes does recognise that human beings are not simply endowed by nature with ready-made powers of perception, but that these powers are rather cultivated, like any skill, through practice and training in an environment. For this reason they can vary from one individual to another, even within a single society. The musician, for example, may develop a fine sense of hearing, and the chef an equally subtle sense of taste, even though both may belong – as they do in the West – to a society that is inclined to describe the knowledge and judgement of each through metaphors of sight. We could even expect that these variations of sensory skill would be manifested neurophysiologically in the differential development of the cerebral cortex, such that were we to map the surface of the human body on a scale that varies in proportion to the space that each region takes up in the cortex, the resulting figure – known as the 'sensory homunculus' (see Figure 14.3) – would differ, say, from the musician to the chef, reflecting their contrasting 'sensory profiles'.[25] For Howes,

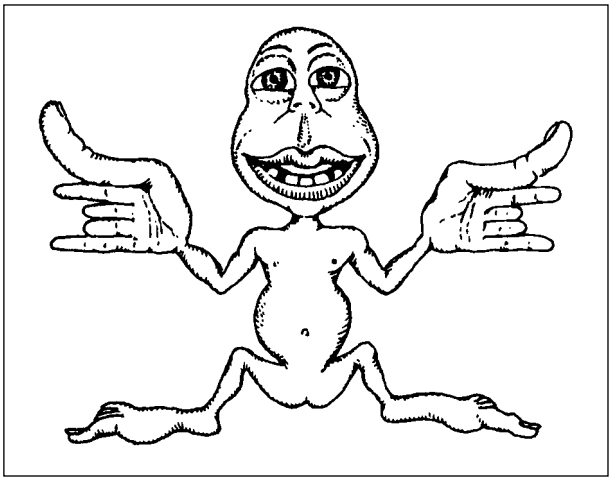

Figure 14.3 The sensory homunculus, an illustration of how the surface of the body is represented in the somatosensory cortex. Larger areas of the cortex are devoted to the more sensitive parts of the body, such as the fingers and lips.

however, these individual variations in practical, perceptual ability are simply irrelevant. He wants to show how the 'map of the senses' differs, not between individuals, but between whole cultures or societies (Howes 1991b: 168–9).

The effect of this move is to uphold a notion of cultures as consisting in systems of collective representations, over and above the conditions and contexts of practical life within which people develop and embody their own skills of action and perception. Howes sets out his position on the matter as follows:

> Differences among individuals (by age, sex, occupation, or temperament) only take on meaning against the background of the culture to which they belong. It is the sense in which *whole* societies can be classified as more tasteful than others, . . . or more aurally than visually minded, . . . that is of primary interest to the 'anthropology of the senses'.
>
> (1991b: 168, original emphasis)

In an 'aurally minded' society, for example, people would express their ideas of knowledge or understanding by drawing on metaphors from the realm of acoustic experience. Where we, in our 'visually minded' society, say 'I see what you mean', they might say 'I hear what you mean'. But this implies nothing about the relative development of their powers of hearing or seeing. Thus Howes is fatally confused in supposing that what he envisages as a 'cultural map of the senses' is merely a scaled-up version of the sensory homunculus (1991b: 168–9). For as the level of analysis shifts from the individual to society as a whole, so the domain that is 'mapped' is no longer of bodily but of conceptual space. Instead of tracing a set metonymical connections between the sense organs and regions of the brain, the 'cultural map' establishes a system of metaphorical correspondences between the material realm of sensory experience and the ideal realm of mental representations. To grasp the logic of this, one has only to substitute a 'plane of sense' for the 'plane of sound' in Saussure's depiction of language (see Figure 14.1).

Like the earlier anthropology of the body (see Jackson 1989: 123; Chapter Nine, pp. 169–70), the anthropology of the senses – as presented in the work of scholars such as Howes and Classen – seems determined to leave lived, sensory experience behind in the search for what it stands for, namely the incorporeal 'ideas' and 'beliefs' of a culture. Far from helping us to understand how the whole body perceives, and how meaning is generated within the contexts of its activities of looking, listening and so on, this approach reduces the body to a locus of objectified and enumerable senses whose one and only role is to carry the semantic load projected onto them by a collective, supersensory subject – namely society – and whose balance or ratio may be calculated according to the proportion of the load borne by each.[26] Now in criticising this approach, I do not intend to downplay the importance of examining the ways in which sensory metaphors are mobilised in

discourse. The fact that we say 'I see what you mean' is surely significant. But in resorting to this figure of speech, I am not expressing one thing, a concept of understanding, in terms of another, a specific objectification of the bodily sensation of sight. I am rather inviting you to compare the experience of unison arising from our mutual engagement in verbal dialogue to the experience, with which both you and I are familiar, of unison between perceiver and perceived in the activity of watching or looking. But what if you were *not* familiar with the latter experience? What if you were blind?

For Howes and Classen, whether or not you can actually see, or just how one's sensory capacities are practically deployed in activities of perception, is beside the point so far as the sensory characterisation of a whole society is concerned. These are merely questions of individual idiosyncrasy. Fieldwork among the 'aurally minded', in a society which has elected to articulate its core values by means of metaphors of hearing, will not tell us anything about the experience of the blind. But as Hull shows, in a meditation upon the blind person's response to the expresssion 'I see what you mean', matters are not that simple. Should he refrain from using the expression? That, Hull remarks, would be absurd. To opt out of the verbal conventions of one's society would be to compound one disability with another. Yet he cannot avoid the fact that the expression, which invites comparison between his understanding and a form of perceptual experience which he does not share with his interlocutors, does not have quite the same resonance for him as it has for them. There is, he says, 'a subtle shift in the whole character of communication between sighted and blind people' (Hull 1997: 26).

The lesson to be learned from this is that the verbal conventions of a society do not come ready-made, nor are they simply superimposed upon the experience of its members so as to 'make sense' of it. Rather, they are continually being forged and reforged in the course of people's efforts to make themselves understood – that is to 'make sense' of *themselves* to others. They do this by drawing comparisons between their own sensory practices and experiences and those attributable to their fellows. I suppose you are familiar, as I am, with the sound of thunder and the sight of lightning. I want you to understand what it felt like when I stood by the railway tracks as the train passed by. 'It thundered past me', I say, 'in a flash'. But in having recourse to this metaphor, it is my *experience* that I want to convey to you, not some conceptual prototype of a 'passing train' for which the auditory and visual sensations of thunder and lightning happen to provide apt vehicles of symbolic expression. Instead of abandoning the lived experience of individuals for the collective sensory consciousness of society, it is surely to this creative interweaving of experience in discourse, and to the ways in which the resulting discursive constructions in turn affect people's perceptions of the world around them, that an anthropology of the senses should primarily direct its attention. 'Making sense', in short, lies not in the subjection of human nature to social conditioning (Classen 1993: 5), but in the involvement of whole persons with one another, and with their environment, in the ongoing process of social life.

Epilogue

Martin Jay closes his monumental study of attitudes to vision in the recent history of Western thought, above all in the Francophone tradition of scholarship, with the following words:

> The trip began by acknowledging . . . how ineluctible . . . is the modality of the visible, not merely as perceptual experience, but also as cultural trope. It thus seemed fruitful

> to follow the unfolding of a loose discourse about visuality, rather than to try to document actual transformations in sensual practices.
>
> (Jay 1993a: 587)

If there is one, principal conclusion to be drawn from my critique of the anthropology of the senses, it is that any attempt to separate out the discourse surrounding vision from the actual practices of looking, watching and seeing is unsustainable. The same, indeed, goes for any other sensory modality. For what is discourse, if not a narrative interweaving of experience born of practical, perceptual activity? The meanings to which it gives rise, as I have shown, are not added 'on top' of lived, bodily experience, but lie in the ways in which the strands of this experience are woven together. Historians of philosophy are surely deceiving themselves in imagining that what has been thought and written *in terms* of the senses can be neatly partitioned off from what has been lived and felt *through* them. As Rée says, 'the historical development of philosophy will never make much sense if it is treated as a bloodless struggle between great books, with all the local flavours, fragrances, noises, temperatures, and colours of ordinary experience left out' (1999: 383).

Indeed the conceit of the philosopher who would write a history of vision without regard to how people actually see mirrors that of the physicist who would construct an optics that makes no reference to the eye. Both, in effect, reproduce a dichotomy between mind and nature, within which all knowledge takes the form of representations of reality. It is through its assimilation to this framework that vision has come to be characterised, by admirers and detractors alike, as having a natural propensity to turn whatever it encounters into objective 'things', to be grasped dispassionately from a distance (Levin 1988: 98). And having been cast in this role, as either the hero or the villain of the drama of modernity, any tendency towards imagining the world as a domain of exterior objects, to be seized by the senses and analysed by the mind, is automatically construed as 'visualism' (Fabian 1983: 106–7). It is as though vision had been compelled to take on the mantle of a particular cognitive style, and all the virtues and vices that go with it. Naturally, critics of visualism have concentrated on the vices (Jenks 1995). David Levin, for example, insists that vision is 'the most reifying of all our perceptual modalities' (1988: 65),[27] whose hegemony in modern society can be linked to a will to power, technoscientific exploitation and political surveillance. And while he admits that vision might have its more open, caring or gentle side, this is to be found only on the margins, in the 'play of shadows and reflections' which reveal to us that 'we are, after all, phenomena of light' (pp. 429, 431).

However, to make the charge against vision stick, as Stephen Houlgate shows, one would have to show that seeing in *actual practice*, rather than as imagined by philosophers, harboured within itself a tendency towards reification (Houlgate 1993: 98–9). One would, in other words, have to breach those artificial barriers that separate life from discourse, allowing the realities of experience to intrude upon the hallowed turf of intellectual debate. Anthropologists do this all the time, indeed the creative tension between theoretical speculation and lived experience is the very driving force of anthropological inquiry. Historians of philosophy, on the other hand, are loath to mix the two, fearing that any move in that direction would threaten the integrity of their own, essentially literary project. That is why philosophical critics of visualism would never dream of asking the kind of question with which a hard-nosed psychologist like Gibson, for example, begins his study of visual perception: 'How do we see the environment around us?' (Gibson 1979: 1). For them, the answer is already presupposed: to see is to reduce the environment to objects that are to be grasped and appropriated as representations in the mind. The irony is that this

answer, which critics of visualism are inclined to take for granted, has its source in the very Cartesian epistemology that they seek to dethrone. What they offer, then, is not an account of visual practice, but a critique of modernity dressed up as a critique of the hegemony of vision.

From the arguments and evidence presented in this chapter I hope to have shown that the case against vision is comprehensively disproven. Indeed it should never have been brought in the first place. It is as unreasonable to blame vision for the ills of modernity as it is to blame the actor for crimes committed, on stage, by the character whose part he has the misfortune to be playing. With Houlgate (1993: 106, 111), I believe that the responsibility for reducing the world to a realm of manipulable objects lies not with the hegemony of vision but with a 'certain narrow conception of thought'. And it is this conception, too, that has led to the reduction of vision – that is, to its construal as a sensory modality specialised in the appropriation and manipulation of an objectified world. Through this reduction, as I have shown, vision came to be opposed to hearing. But there is nothing natural or pre-ordained about this opposition: as often as it is reasserted in academic books, it is belied by our own experience. It is my contention that by exploring the common ground between vision and hearing, rather than by abandoning the one for the other through a 'turn to listening' (Levin 1993: 3–4), we may be guided not only towards a better appreciation of the richness and depth of visual experience, but also towards a more generous, open-ended and participatory understanding of thought.