A Puzzle

1 can know another person as a person only by entering into personal relation with him. Without this I can know him only by observation and inference; only objectively.

John Macmurray, Persons in Relation

How do babies come to understand people? Can babies be aware of others' minds? Do they perceive people as “persons,” as psychological beings? I used to think babies were dull. I found them neither sweet nor interesting. Five-year-olds, on the other hand, were amazing. They did interesting things, made outrageous observations without concern for propriety, and, above all, you could hold conversations with them. But then my children were born and I was seduced by a new language. It seemed that if I let myself engage with them and learn their language, a new world was opening up for me—one which the textbooks didn’t believe existed. The most striking thing my babies were telling me was that they could understand me and others as persons. They were teasing, joking, playing with our expectations and attitudes and interests, being shy, and showing off long before they were able to speak. Understanding other minds didn’t seem to be a problem to them.

Yet, when I started to report studies investigating these infant abilities, I ran into a strange problem. Psychologists found the observations interesting—even amazing—but my interpretation (that these were revealing infants’ awareness of other people’s intentions and expectations and attentions) was seen as unacceptable. I was continually being told—like the users of British trains—to “Mind the Gap”! Infants, I was told, could perceive people’s bodies but lacked the intellectual skills to grasp other minds. The idea of this gap mystified me. Why such a barrier? Why should minds be necessarily closed?
to babies? Had I simply bumped into the fact that the modern science of understanding people fails to take seriously any knowledge that comes from inside the realm of personal relation? Or a still more powerful determination in psychology to keeping mind and body separate? In trying to answer these questions, I discovered that babies were an exciting “test case,” not only for one of the most central questions in both psychology and the philosophy of mind—how we understand minds—but for the methods that the psychological sciences use to understand people.

The answer I am developing in this book—a second-person approach to knowing other minds—is part of a broader philosophy of science, something that is relevant not only to the question of how infants understand people but how adults—and people from different cultures—understand each other. It is also a part of a philosophy of personal relations: about how we could—and should—be open to each other in our adult, parental, therapeutic, educational, or working relationships. In a sense this book is an invitation to shift perspective. Things can be thought of differently. And we need to shift our thinking if we are to go beyond the traditional rats and hang-ups of a psychology which holds on, surreptitiously, to dualisms it claims to have discarded and, more openly, to methods of investigation it knows are more appropriate to non-sentient subjects. I will use observations from infant lives, which may violate our experimental desires and offend our scepticism, but which are the closest we can get to engaging with infants on paper. To grasp the significance of these events in infants’ lives and awareness, you may need to let down the boundaries between your life as a reader and your life as a person.

Bumblebees, Tuna Fish, and Babies: Similar Problems?

When my daughter was 9 months old, I was videotaping an ordinary family meal time to be shown in my class on pre-verbal language development. I caught an interaction on video which the family referred to confidently as “teasing.” Watching it again and being impressed by what seemed my daughter’s awareness of what other people wanted and expected of her, I stumbled on my first problem with the theoretical assumptions of the day. “Why talk about awareness of mental things like intentions and attention and expectations?” was the common academic response. “Why not just talk about awareness of behaviour? Why not just call them tertiary circular reactions or learning?” Similar comments followed with every new phenomenon I presented: “Why not call it conditioning? Or reflexes? Why use the term awareness?” Whatever the problem was, it was deep and puzzling. Why the “just,” the implied “merely”? Why was it so objectionable to argue that babies were aware of mentality and of psychological (rather than merely physical) phenomena? It seemed both unnecessary and inconsistent with other claims in psychology. All the alternatives that were offered to explain these subtle and impressive engagements that infants were managing seemed only to be aimed at explaining them away.

The problem could be likened to the old—and probably apocryphal—story about bumblebees not being able to fly. Involving (in some versions) Swiss scientists doing back-of-the-envelope calculations in pubs, the story goes that mathematical models of aerodynamics simply could not explain the flight of bumblebees. Their round, heavy bodies and tiny wings simply did not add up in terms of the lift needed for flight. But of course they did fly, at the rate of 3 metres per second! And there is a story told by Andy Clark involving the blue fin tuna. In terms of muscle power they are far too weak to swim at the high speeds with the rapid pick-up and quick manoeuvring ability that they achieve. And yet they are real swimming prodigies.

Are human infants in something of a similar situation where science tells us babies can’t understand people as something more than physical objects, although babies act as if they do? In the case of the bumblebee and the blue fin tuna, the theoretical problem came from a mis-assumption—from thinking of the organism’s capacities separately from the environment in which it functions. The blue fin tuna swims so well because it manoeuvres its body in precise relation to the alternating clockwise and anti-clockwise vortices created by the clicking of its own tail. A similar story emerges in the case of the bumblebee. The bee manages to fly by creating vortices in the air around it through its rapid wing beats and then moving in the sea of vortices. If we talk of the abilities as lying within the fish or the bee, if we look at the organism in isolation from its environment and analyse its capacities without looking at what it does with the environment, we have to conclude that the bee can’t “really” fly and the fish can’t “really” swim. And that is absurd. But think of the swimming ability of the blue fin tuna and the flying ability of the bumblebee as belonging to an organism which is an active part of its environment, and we don’t fall into this contradiction.

Could the problem for babies, too, be resolved by re-embedding the baby into the world of people? After all, we (in psychology) often think and talk about understanding other people as if it were a case of one completely
A Puzzle

separate person—and completely separate mind—trying to understand another. We don’t tend to talk about people or minds as already intrinsically connected. But what if we did? What would this mean? What if we think of the starting point for understanding people as being, not isolation and ignorance, but an emotional relation and a psychological awareness? The idea of starting from emotional relation could powerfully change the way we approach the question of understanding minds. Rather than being belated consequences of a rationally constructed understanding, emotional engagements could be moments of intimacy, where a powerful awareness of the other is both revealed and forged. They could be similar to what Daniel Stern calls “now” moments, in which not only is there some new insight into each other, but the relation itself changes, creating new things to be understood.3

So, one problem leading to the puzzle might come from thinking of the baby as dis-embedded from other minds (and indeed from the world of objects and activities in which minds live). But is there an even deeper problem for us in talking about how babies understand minds—a problem of dis-embodying the mind? After all, much of psychology does think of mind as something private and opaque—something that is hidden behind the mask of the body, sometimes revealed in the body’s behaviour but sometimes not. Indeed, many psychologists define the mental precisely in terms of its separation from the physical. Essentially, textbook psychology sees mind as bearing no fundamental concordance with the actions of the body (otherwise mind would be transparent to perception). In doing so, it seems to have dis-embodied mind. And this is where the real problem begins. If minds are indeed so hidden, then of course babies couldn’t begin to grasp the first thing about them. Not having the intellectual and deductive skills of adults, when babies look at other people (given the assumption of the hidden-ness of minds), what else could they perceive except their physical movements and sounds? They would be completely denied access to others’ psychological existence.

These two problems (the dis-embedding and the dis-embodying) make it really hard to build a coherent explanation of how minds can ever come to be understood—not only by babies, but also by adults or other animals or indeed by psychologists. If minds are only to be inferred, certainty becomes impossible, and psychology itself becomes a dubious, rather magical, enterprise—filled with ungrounded theorising, imaginary “Rubicons” for babies or species to cross, and, most important, an inability to take action seriously.

Very often we also end up with double standards for judging the significance of actions and interactions. Observations adequate for demonstrating mind knowledge in children become inadequate for infants because of the general belief that infants are incapable of such understanding. And the things that are the most meaningful to us in everyday life in terms of our understanding of others—the little everyday emotional engagements (the tell-tale glances, the knowing looks, the cheekiness of a smile, the startled pause, the surges of feelings) developed in established personal relationships—tend to get sheepishly sidelined when it comes to reporting scientifically on how we understand people. These double standards open up several questions about evidence for mind knowledge. To what extent do we need academic detachment for understanding other minds? Is detachment the way in which we understand minds in everyday life? Does understanding lie in experiencing the detail or in grasping the theory: in the doing or in the theorising? Who is the expert when it comes to understanding people—the detached scientist or the ordinary person in everyday life? Would re-embedding the baby into psychological relation with people and re-embodied minds solve the contradiction between what babies seem to understand about minds and what science thinks they don’t understand? But does it matter how science conceives of babies?

Does It Matter?

Does it matter if science thinks that babies cannot understand us while parents think something else? After all, parents have been getting on with their infants and infants with their parents for millennia, entirely without the help of philosophers and psychologists and their arguments or misassumptions.

I think it matters profoundly. The views of science and philosophy influence people’s actions even in something as fundamental as being with children. Pop psychology and parenting culture exchange information and values with the culture of the “experts,” and the recommendations change and shift like fashions in the width of trousers. How we deal with the question of knowing other minds affects not only how we understand our children but also how we act towards them. If we think that infants have little in the way of thoughts and feelings and perceptions, then we will do less to look for or respond to what others might see as infants’ thoughts or feelings. It was not so long ago, after all, that folk wisdom had it that human infants
were born unable to see or hear, and that they were capable of little more than “mewling and puking in their nurse’s arms,” as Shakespeare put it. It was not so long ago either that medical science asserted (without parents being able to challenge it) that neonates cannot feel pain and thus justified a variety of intrusive practices like surgery without anaesthesia.

The implications of assuming infant ignorance about our minds are even more immediate; if we think infants have little access to our emotions and thoughts, we will make little effort to express them (perhaps when positive) or disguise them (perhaps when negative). We will create the kinds of interactions appropriate for an infant who cannot understand us—observing them, training them, keeping them happy, but not really engaging with them.

But engagement is vital. Its consequences are immediate in terms of affording or denying the baby the experiences that could emerge from them, and also, of course, for affording or denying the parent the experience of the baby that comes from those engagements. The way in which we allow ourselves to engage with others circumscribes the way in which we can know them; you might say, the more we engage with others, the more we can engage with them. Although this book isn’t going to provide “shoulds” and “should nots” about engaging with babies, it is fundamentally based on descriptions of such engagements and on the premise that emotional engagement matters—not just for infants, but for adults, for other animals, and even for psychologists in their own quest to understand other minds. Neither infants nor adults nor other animals nor psychologists stand much chance of understanding if they stand aside from people and watch them without emotion and without engagement.

Trying to answer these questions has been more exciting than I had imagined, and you can’t answer them without unpicking the philosophical assumptions we make about minds and babies and behaviour—assumptions that we cannot afford to be unaware of. So that’s where I will begin in the next chapter. But for those who are less than keen on philosophical quagmires, you might want to skip ahead to Chapter 3, where I suggest an alternative approach for understanding our awareness of other minds.

CHAPTER 2

Minding the Gap

Like one who doubts an elephant,
Though seeing him stride by,
And yet believes when he has seen
The footprints left; so I.
Kālidāsa, Shākuntala

Minds are supposed to be impossible to “see”; yet we manage to deal with them pretty easily. In this chapter I will do two things. First, I will look at the roots of the assumption that mind is fundamentally opaque and hard to access. Is that assumption necessary? Does the gap that I was warned to mind really need minding? It seems to make problems not just for explaining how babies know people, but also for how we as adults, and indeed we as psychologists, do so. Second, I will look at possible answers to the question of how, if we think there is such a gap, we come to know minds.

Standard answers can be grouped into two kinds, proposing either a first-person or a third-person bridge across the gap. Both, I will argue, are unsatisfactory. They assume a fundamentally bystander or spectator stance towards other people, rather than one of participation and engagement. In different ways, both first-person and third-person approaches retain a “gap,” the problem of the fundamental opacity of other people’s minds. I will propose that there is an alternative approach, a second-person approach, which I will elaborate in the next chapter. But first, what is this gap?

The (Impossible) Gap

When I spoke about babies revealing an understanding of minds in their everyday engagements, I was advised to respect the gap between mind and
behaviour. What was this gap exactly? It seemed to be something that divided behaviour and mentality, the physical and the psychological, the surface and the depth. Babies were allowed to access the surface, the physical, the behavioural, but not the psychological, the mental, the depth. This is actually quite puzzling. Psychology in recent decades has credited very young infants with all sorts of understanding: for instance, an understanding of gravity and solidity and an understanding of number and size. So why, if babies can understand simple physics and simple mathematics, should simple psychology be so out of bounds to them? Why should the infant be dealing with us at a level of physical movements rather than mentality? Why should there be a gap that banishes minds to the realm of invisibility and inaccessibility? This was particularly puzzling coming from a psychology which had, a good half century earlier, rejected mind-body dualism.

For some theorists, the gap exists between one mind and another: put crudely, their problem could be glossed as “I know my own mind but yours is a problem.” Piaget, arguably, took this position, as do many modern “Simulation” theorists. For others, the gap exists between the physical and the mental: again put crudely, their problem is “I can see your body (or mine), but I haven’t got a clue that you (or I) have a mind inside.” The modern “theory of mind” theorists could be said to adopt this starting position. But assume either kind of gap and knowing other minds becomes a problem; for both, other minds are opaque and unperceivable.

Here is a common modern way of phrasing the problem which rather blends the two types of gap and poses the profound frustration of the problem. How do infants come to realise that what they experience in themselves—their bodily feelings, the “internal” information about their own movements and discomfort, their feelings and perceptions—can also be experienced by another person of whom they can only perceive the “outside”? How do infants connect and recognise as similar the proprioceptive information they get about themselves with the distal perceptual information they get about other people? How, to put it yet another way, do they connect the direct “first-person” information they have of themselves with the very indirect “third-person” information they can get about other people? In fact, the problem is not dissimilar to that set up by Rene Descartes, the French Renaissance philosopher.

Descartes’ Problem

Descartes argued that there are two kinds of substances in the world, mental and physical. The mental substance—res cogitans—thinks, while the physical substance—res extensa—essentially just takes up space. We think we can perceive physical substance (bodies, trees, tables, stars), but we could be deluded by sensory evidence—as happens in dreams and hallucinations. Our senses and our convictions about external reality are unreliable. However, when we think about this and experience this doubt, we undoubtedly experience the mental substance. So the only thing we can be certain about, Descartes argued, was this one thing: the existence of our own doubting and thinking mind. Hence his famous dictum “I think therefore I am,” or cogito ergo sum. Given his assumptions a “QED” seemed warranted here.

The problem was as follows: if minds were only open to private experience, how could one be sure that other minds even existed? The answer had to be that one couldn’t. Not with any certainty. As with the existence of the world itself, one could not know with certainty—one could only speculate or guess. For Descartes, the mind was an isolated, unworlidy, and disembodied thing, with no direct access to anything other than itself. As a consequence, individual minds (or people) were not only reaching across a profound gap for knowing or relating to other minds, but were also reaching across a gap in relation to knowing or relating to the world around them. Their relations were necessarily limited to their own—possibly hallucinatory—ideas about the world or other minds. How did Descartes survive in this strange world? His solution was to trust that God would not have misled him in speculating about the existence of the world around him or about the existence of other minds. But in psychological terms at least this was of course a cop-out.

Modern Mind-Behaviour Dualism

Today, no one takes this divine route to knowing other minds. And no one adheres to Descartes’ idea of a mind-body dualism or separation: the seventeenth-century notion of separate mental and physical substances is banished to realms occupied by phlogiston, the life force, and other mystical concepts. And except for some extreme views, most theories of perception adopt some degree of realism: the organism, at least to some extent, is seen as picking up information about the physical world rather than constructing it all. Nonetheless, the modern rejection of mind-body dualism is not
without its contradictions. While we might be passionately committed to a deep and profound connection between the body and the mind, we are likely to be equally passionately committed to the distinction between the terms mind and body, and even more oddly, to the opacity of one and the observability of the other. We seem to have rejected Descartes’ mind-body dualism, but retained one of its implications—a mind-behaviour dualism. It is almost the first principle of student training manuals on how to observe behaviour that description must be separated from interpretation—in other words, that physical movement is separate from its psychological meaning. The behaviour of the body is seen as transparent to the observer, while its “mental” or “intentional” meaning is seen as opaque and only accessible to interpretation and inference. Only first-year undergraduates may be forgiven for confusing behaviour with its “meaning.” A belief in the deep unreliability of the connection between behaviour and mind is often asserted as strongly as a religious tenet.

Strangely, two diametrically opposed schools of psychology are both premised upon this distinction and this assumption. Behaviourism in the early twentieth century rejected all talk of mind and, by the very act of doing so, retained the dualism. And cognitivism in the late twentieth century, reacting against the behaviourist rejection and focusing on mind as its primary quest, sidelined the actions of the body—its behaviour—and therefore equally embraced the same dualism.4

Even more absurdly, the two allegedly opposed camps are not only theoretically compatible with each other, but one even requires the other: Cognitivism needs to stand on the shoulders of behaviourism to explain lesser phenomena. For instance, if the development of a complex cognitive representational ability is to be explained, what can the theorist do to explain the understanding present before this ability develops? The theorist has to offer not only a developmental explanation of how the cognitive representation develops, but also an explanation of what’s going on before it. To do this, the cognitive representational theorist logically has to resort to explanations involving understanding of “mere” and “outward” behaviour, with the “understanding” based on association, learning, or conditioning. Deemed not to be the “real” thing in terms of understanding, but presented as either stepping stones (direct precursors) or simply “pseudo” skills, these earlier phenomena are always described in behavioural terms. Cognitivism, it appears, necessarily presupposes a behaviourist stage in development! In relation to understanding minds, this implies a stage during which no recognition of mind is possible, only the perception of behaviour and its regularities, a stage then overturned by conceptual advance. This is quite explicit in some texts—the infant is seen to begin life as a behaviourist, and only in adulthood to become a cognitivist. And the same analogy continues in considerations of the evolutionary development of knowledge of minds—monkeys such as macaques and baboons may be depicted graphically as “ethologists” (who just observe and describe behaviour), while the great apes are depicted as “psychologists” (who interpret behaviour in mentalistic terms). There is a meta-theory at work here, which puts behaviouristic and cognitivistic understanding on a single, sequential developmental path, whether in evolutionary terms or in terms of human development, leading to a conclusion that behaviouristic understanding is a (necessary) step towards cognitivistic understanding.5

This is not only a metaphysical problem (the split between “reading minds” and “reading behaviour” assumes a deep dis-embodying of mind) and a developmental problem (it is very difficult to explain convincingly the jump from simply seeing behaviour to conceiving of the presence of minds) but also a methodological problem. If the two are categorically separate, you simply cannot test one against the other—each sphere of explanation is complete unto itself. And we are left with an unsatisfactory evolutionary and developmental picture in which our representational explanations become no more than conjecture. Cartesian doubt is alive and well in the mind-behaviour dualism of modern psychology. Even when scientists are happy to describe the mind in physical terms—for example, seeing it as the software to the hardware of the brain—they nonetheless end up depicting it as ultimately inaccessible (except to informed guessing). In such models, it is implied that the user cannot read the software but only knows its effects and acts in interaction with them. However, unlike computational software, which can be directly written and read by the expert, mental software in this scheme cannot be read even by the expert—except, according to some, by a futuristic neuroscience. Where minds are concerned, both psychologists and ordinary humans are seen to be ignorant of what’s in the alleged software; they can only guess at it. This modern model of the mind is therefore not different from the Cartesian one when it comes to postulating a gap between mind and behaviour, and even when rejecting the distinction in ontological terms, it steadfastly holds on to it in epistemological terms.6 Other minds are, according to both models, invisible and inaccessible except...
to conjecture. But why is this a problem? I will identify three problems here: uncertainty, disembodiment, and privacy.

Problems with the Gap

The Intolerability of Uncertainty

The first problem is that of certainty. We aren’t willing to accept Descartes’ “out,” which allowed a divine verification of our guesses about minds. Today’s science is seriously empiricist, believing that knowing can only come through the experience given to us through our senses. As a consequence, being certain about other minds now becomes an insoluble problem for science. If we cannot know anything other than our experience, and if we cannot directly experience minds other than our own (or even our own, if we adopt what has come to be known as the “theory-theory”), then it follows with an inevitable logic that we have absolutely no way of knowing the experience of others. We can never with any certainty know about either the nature or the existence of other minds. This is the essence of what has become known as the “problem of other minds”: given our assumptions, knowing other minds is impossible; but, given our social lives, knowing other minds is a fact. Descartes, it has been suggested, suffered from a truly bad dose of the problem—painstakingly writing to persuade other minds of his lack of conviction that other minds existed. But you could argue that for ordinary people it doesn’t matter. Ordinary people are not scientists concerned with establishing the truth about the existence and nature of other minds. Certainty isn’t central to their everyday dealings with people in the same way as it is claimed to be for a philosopher or scientist. However, ordinary people, too, would not be able to survive or function with real uncertainty.

I used to teach an undergraduate course called Knowing Other Minds. The most interesting thing about this course was the frustration it unfailingly caused students in about Week Two. Most started out confidently asserting that it was never possible to be certain about the “contents” of another’s mind. Yet they also, equally confidently, held two other beliefs: one, that they had no doubt at all that other people around them did have minds, and two, that in their own lives they sometimes were certain about others’ thoughts and feelings. The reasons for the first belief were obvious: they thought of minds as invisible, inaccessible things whose “contents,” therefore, no one else could ever be certain about. The reasons for the second and third beliefs were also clear: they interacted with people everyday with certainty rather than with probabilistic guesses about the existence and nature of their minds. And since you cannot both deny yourself certainty and claim certainty, their frustration came from finding no satisfactory way out of this contradiction. Although they were convinced about the unquestionable privacy of minds, they were also deeply committed to the possibility of interpersonal understanding and trust and appalled by the absurdity of having (by their own logic) to doubt that other minds existed.

Contradictory beliefs about the transparency of minds are not unusual. On the one hand, most cultures have sayings that vouch for the impenetrability of minds. Take, for instance, the Russian proverb “Another person’s soul is unfathomable,” or the Urdu saying “Gold, you can test by scraping it, but man, you cannot test even by scraping him” or even Shakespeare’s “There’s no art to find the mind’s construction in the face.” And everyone knows from personal experience that deception happens all the time, and often effectively in close relationships, too. On the other hand, people deeply value knowing and being sure of other people’s thoughts and feelings. There is a scene in Tolstoy’s Anna Karenina in which the newly betrothed Lev and Kitty, standing in a formal Russian drawing room full of people, correctly guess each other’s increasingly coded speech and thrill to the incredible intimacy of knowing each other’s unspoken thoughts.

We conduct most of our personal lives knowing rather than doubting or guessing people’s feelings and thoughts. We really would not be able to accept the implications of an ultimate inability to know the minds of those we cherish. Life wouldn’t be worth living if we were so entirely alone or uncertain in our mental lives. We would be entering a grey half-world in which the world is and becomes only what we think it to be. As Ursula Le Guin puts it: “There is a bird in a poem by T. S. Eliot who says that mankind cannot bear very much reality; but the bird is mistaken. A man can endure the entire weight of the universe for eighty years. It is unreality he cannot bear.”

But the problem is greater than simply the unbearable loneliness of uncertainty. If we really lived within a framework of doubt we could never function, never really be open to engagement. We need, if not certainty, at least the absence of uncertainty in order to do things with other minds. And we need to do things with other minds in order for them (and us) to continue to exist and develop as minds.
The Impossibility of Disembodiment

Disembodiment is the second problem with mind-behaviour dualism. Can observation of behaviour be separated from its interpretation? It may, in fact, be impossible to separate mentality from bodily movement. "O body swayed to music, O brightening glance, How can we know the dancer from the dance?" asks W. B. Yeats, reflecting a difficulty in separating the person from the person's actions. If we cannot separate the action as some ideal form (the dance) from the contextual manifestation of the action (the dancer), how can we separate in everyday life our mentality in its ideal and unexpressed forms (the mind) from its actual expression (the behaviour)? Is the mind ever separable from the movements of the body?

For Descartes the body was irrelevant to the business of knowing minds. He "de-souled" the body, as some put it. For other philosophers, however, such as the phenomenologists, far from being a depersonalised and unreliable machine obeying the commands of the mind, the body was itself an intentional thing. It was the intentional, expressive core of our being. And it was the connection between bodies which formed the basis of knowledge of other minds. As the French phenomenologist Maurice Merleau-Ponty put it, "it is precisely my body which perceives the body of another person, and discovers in that other body a miraculous prolongation of my own intentions, a familiar way of dealing with the world." Modern neuroscience comes very close to closing this gap between bodies with its discovery of so-called mirror neurons (although talking about perceiving another's bodily expressions as perceiving another's mentality is still fairly taboo). For Darwin, too, interested in continuities in the evolution of mind, the body was an intentional entity in itself, and so for him the question of a separate system of interpretation for this intentionality (separate from a system of perception of bodily movements) would have been an evolutionary absurdity. From this point of view, mind becomes the way in which a living body acts, not something separable from, hidden behind, or leading to its actions. To borrow Gilbert Ryle's phrase, mind is better seen as an adverb qualifying action than as a noun. For example, we sit anxiously, step carefully, move confidently, pause thoughtfully, look attentively, reach purposefully, and so on. The mentality in these actions is not seen as a separate process but rather as a quality of the action itself. The implication of such views about mind for knowing about them is obvious. If minds are what bodies do, they are public, not private. We don't need inference or theory or stories to get at them; they are transparent to perception. This is not to say that infants (or adults, or other animals, or psychologists for that matter) therefore necessarily, or always, perceive these qualities of action. In order to say that, we would need evidence of discrimination and meaningfulness. But in principle, at least, they could.

Another sense in which mind has been dis-embodied has been through portraying it, not as a kind of crypto-entity hidden behind the mask of the body, but as a purely conceptual or "mental representational" entity—something that must be inferred by an act of intelligence and thus exist in "representations." This view is common amongst some modern approaches, where mind is seen as "real" only through imagination or inference. Defining the mental or the psychological as a hypothetical entity, as not real, presents its own problems for explaining how organisms with minds engage with the world. The implications for knowing about them, however, are similar: until that point in development when the non-real can be hypothesised and imagined, minds are out of bounds. Other theorists, without quite adopting this emphasis on a purely conceptual reality, focus on "representing" as the primary business of minds. The child's task in understanding minds according to this emphasis is therefore to understand representation. However, while representing is one aspect of what minds do, focusing exclusively on this aspect is problematic for understanding the psychological engagements of infants and other people, in fact for understanding how even representing could come about. As we will see in some of the next chapters, it invites a misleading neglect of action.

Privacy

The third problem is commitment to the privacy of psychological phenomena. If we can perceive the mental qualities of actions in other people—a thought striking someone in mid-conversation, a smile that they are trying to suppress at someone's side of a meeting, the concentration in a child's brow at a piece that won't fit in the puzzle, the joy in the smile that greets the sight of a chocolate cake, or the deceptive intent in the hurried hiding of the biscuit under the toy box—how private are minds? Certainly some mental experiences can be private, but are they necessarily and developmentally so? There are two serious reasons to question what we think of as the unassailable privacy of our experiences. One is developmental, and the other (fundamentally related to this) is cultural.
The developmental problem with privacy. The standard way of thinking about private and shared experiences is to think of privacy as the starting point from which communication about private mental states can occur, though never quite adequately. Developmentally speaking, however, this is not true. First, developmentally speaking, to be private is more difficult than to be public. In many ways, we know this to be true. We see an infant cry or smile or turn to look or frown, and there is no question that the distress and joy and interest are publicly available. While we could doubt them in an adult, we could not do so in an infant. And this is an important difference. Second, joint action and shared experience are developmentally prior to the communication of private experiences. Telling others about one’s thoughts and feelings and perceptions and intentions happens only after a long history of engagement with each other’s thoughts and feelings and perceptions and intentions. And the well-established finding that private speech can only occur after “public” speech adds further weight to this argument. These developmental factors—that doubt about mental states is more appropriate later in development and that communication about mental states occurs after a prior history of sharing mental states—suggest that we could in fact turn the tables on the standard story and reverse the direction of effects. The story makes better developmental sense if we argue that it is shared experience of mentality that allows privacy. The “public”—sharing—is a developmental step necessary for allowing the “private”—concealment—and not the other way around. It may even be that genuine engagement—mutual psychological contact—can lead to an understanding of the self that would not have been possible without it.

The cultural problem with privacy. There is another angle that might help us to think about the question of privacy: culture and the very different cultural practices that can exist in relation to private and shared experiences. In Western and Westernised cultures, we tend to think of ourselves so much as separate individuals with separate problems and experiences and reactions that we find it hard to see this way of living as only one of a number of possible ways. In some cultures a problem, loss, difficulty, victory, doubt, indecision, or hardship never belongs to just one person: rather, it is always owned by those around the person as well. This concept may be hard to believe (and very hard to live with!) if your experience is totally within a Western culture. But because I have a foot in two different cultures, I am constantly struck by the difference in experiencing an event when it is not yours alone. For instance, it is fairly normal in Western cultures to express sympathy to a bereaved person by enquiring how they are feeling. However, it may be less common in more “collectivist” cultures. And to never be asked by visitors, “How are you feeling?” is profoundly telling. It lifts the responsibility for the feeling, and indeed the ownership of the grief, right off your shoulders. It makes the event, the feelings, and the responsibility for any actions unquestionably shared. The interesting thing for us here is that having everyone around you be aware of and “meddle” constantly with the events in “your” life might actually change how private or public your mental life can be.

Nico Frijda and Batja Mesquita conducted an unusual study on cultural differences in people’s expectations about knowing what others are feeling or thinking. They found that people in more traditional cultures claim more knowledge about the feelings and mental states of others in hypothetical situations than do people in industrialised modern cultures. In itself this difference might mean nothing. Presuming knowledge doesn’t mean that you have it. However, these claims happened in groups which also reported high levels of expecting to do something to deal with, help with, or resolve other people’s problems. Now the point here is this: could it be that frequent and intense action involved with other people’s “situations” actually leads to less privacy of mental states in those situations? This claim may seem strange, but it is potentially powerful. When two people closely share responsibility for not only knowing about but doing something about their respective problems, when the lived situation is shared, how private can mental states actually be? Fantasies and imaginations, too, might end up being shared.

The question is not, “can privacy of experience exist?” Of course it can. Better questions are, rather, “does it always exist?” and “what conditions does it not exist in?” It seems that the more public a situation is in terms of being shared in joint action and responsibility, the more the mental experiences of each also become public in terms of being known by others. The more privacy of action is expected of people, the more private their mental experiences are, too. There is something about doing things together which is fundamental to knowing about each other.

This idea must be evident in differences not only between cultural groups but also in relationships. There is a lot you know about a person’s thoughts and intentions and perceptual tendencies and even fantasies, if you are closely involved over a long period of time in working with that person or in jointly dealing with situations in which these things play a part. The question of deception in close relationships is often used as evidence of the irrelevance
of shared lives in knowing about each other's minds. But this is a weak argument. Shared lives can vary enormously in the extent to which different aspects of life are shared. You can live with someone for fifty years but live and experience separate events separately. This is a sharing not of life events but merely of space and time. For sharing lives you need a sharing of concerns and purposes, to borrow a phrase from Margaret Donaldson. Doing things together—engagement over time—can not only reveal "private" experiences, but actually create more public experiences. Privacy seems to be doubly problematic for engagement—preventing engagement on the one hand and reducing mental experience on the other.

So these are the three problems associated with the gap—uncertainty, disembodiment, and privacy. But since a gap is commonly assumed, how is it supposed to be bridged?

Views across the (Alleged) Gap

How can the infant—or child or adult or other animal (or psychologist!?)—get to know other people as psychological beings across this alleged and profound gap? Standard answers to this question can take two routes. There is what we can call the first-person route, which basically argues that other minds are known through reference to the self. Generic knowledge in philosophy as the argument from analogy or in modern adaptations as simulation theory, the first-person route argues that you look across the gap, see another body, and recognise in that body a similarity to (or something of) yourself. Seeing yourself in the other allows you to recognise the other as a person. Another is what we might call the third-person route, which is known in philosophy as the best fitting hypothesis approach or in modern terms as the popular theory of mind theory. The argument here is that, looking across the void, the infant sees neither the other person nor herself but rather physical patterns in self and other. Interpreting those patterns and co-occurrences can lead to hypotheses (which can be continually revised) about the existence and nature of minds. It is through logical deduction that the infant comes to discover people as people.

What these two solutions share in common is the premise of the gap—the idea that other minds cannot be directly accessed and that a bridge is therefore necessary to cross the gap. This bridge, in order to reach the minds at both ends, must be made of mental substance or, in modern terms, must involve mental representations. The two solutions differ in two respects:

where these representations derive from (from experience within the self versus from observation of others) and how they develop (through reference to the self versus through hypothesis-testing). Each of these solutions offers a powerful insight into some of the ways in which we as adults understand other people and how this process of bridging the gap might occur. But there are also problems with each (both in terms of their logical adequacy and their explanation of development from infancy).

Analogy: Starting from First-Person Experience

John Stuart Mill provided what some say was the first argument from analogy. Assuming, as Descartes did, that we have direct and privileged access at least to our own mental states, Mill describes the process by which, for example, we understand that another person is angry: we see that person making vigorous movements with the fists and stamping movements of the foot, and we recall previous occasions when we had made the same movements and had experienced a feeling of anger. We infer, through analogy with our own experience, that other bodies must also have the same sort of mental states that we have. Understanding through analogy is familiar to us in everyday life, and that's why this solution seems so credible to us. We say, for example, that no one who has not personally experienced some trauma—a divorce, the death of a child, the loss of a parent, a child's transformation into a teenager—can possibly know what it is like. We must all have memories, on one hand, of failing to grasp what someone was feeling because our own experience was limited at that time or, on the other hand, of insights that we suddenly gained into someone's state on the basis of a realisation of its similarity to something in our own past.

But is analogy really the basis of our knowledge of other minds? As a bridge to awareness of the existence of other minds, it seems incredibly fragile. Analogy usually works by extension from at least a few proven cases. In the case of other minds, however, if all we can ever have is the experience of our own, we are making a huge overgeneralisation from one case. If our experience really was so solipsistic, why would we even be tempted to make the generalisation that other minds existed? Furthermore, if analogy provided our only access to other minds, it would tie our knowledge of others totally to our own experience.

The philosopher Ludwig Wittgenstein offered a profound criticism of this assumption of the "privileged access to the self" as the source of mind
knowledge. His argument centred around language and was aimed at rejecting the possibility of a private language; nonetheless, it is deeply relevant to this debate about minds. Wittgenstein saw the sharing of mental experiences between people as a prerequisite for, rather than a consequence of, knowing one's own mental experience. If we only ever experienced the feeling of anger in ourselves, and never either knew it in others or engaged with others about it, how would we know it as something? The feeling of anger would be beyond our awareness as a "something." It is only because we can share it as an aspect of engagement that it becomes an entity, one which subsequently becomes named and is further shared.

A modern version of the argument from analogy, called simulation theory, adopts more sophisticated concepts but offers an essentially similar explanation of how infants come to know other minds. Perceiving the similarity of behaviour between bodies, the individual has only to access her own mental experience usually accompanying that behaviour and use this experience as an internal model for the other's mind. Recognising situations that the other is in, the individual can run "simulations" of the experiences she would have if she were in that situation, and through these simulations she can feel or think what the other feels or thinks. Understanding the other's mind is an attribution based upon the self.

How is this similarity of body or similarity of situation actually recognised in order for the simulation to be applied? How does the infant realise that the perceptual information she has about the other is actually connected to the proprioceptive information and the (apparently) same sort of experiences she herself has? One modern answer within these premises is in terms of representations of similarity or "like-me" representations. Still preserving the psychological gap between self and other, this answer maintains that any awareness of mentality in others is the result of attribution, not perception. However, the bodily gap between self and other is abandoned. The starting point for bridging the gap is seen as the possession of the same neurological "body scheme" allowing the recognition of other people as "just like me." The next step in understanding comes through imitation of the other's body movements, which generates a subjective state in the infant. Once the infant experiences this mental state in the self, she can then attribute it to others. Other versions of this recognition of similarity to self differ slightly: starting not from an immediate recognition of the similarity of actions, but from an innate propensity to identify with people "like me," the infant then attributes to other people what she has already experienced in herself. And as her knowledge of her own mental states develops, she attributes these correspondingly to others as well. In fact, these modern answers are not purely "first-person" accounts: the reference to the self can even be in the form of a "third-person" account, as primitive forms of theorising or "an initial theory of action."

More recently, theorists at the University of Parma, following the discovery of responsive neuronal activity, have offered a much more direct account of "experiencing" another person's state. Vittorio Gallese suggests that by means of a shared neural state realised in two different bodies and through similar sensations evoked in the observer "as if" he or she were doing the same thing, the "objective other" becomes "another self." These theories have hit on the huge psychological significance of sharing the same body with other people. This route is necessary for any bridge across the gap, but it isn't enough for the infant to be able to recognise other people as being the same as the self or to see "the self in the other." A perception of similarity is not enough to provide the motivation for engagement and communication or to explain the responsive emotions that fuel engagement. Something more is needed, which not only establishes the connection between bodies as this solution has done, but also, by not portraying bodies as merely data for establishing the perception of psychological similarity, establishes a route for responsiveness and relatedness.

Theory: Starting from Third-Person Observation

To overcome some problems with the idea of analogy, and to avoid the problematic assumption that we have some sort of privileged access to our own mental experience, one philosophical solution is to assume a general ignorance of all mentality, which can only be dispelled by a more solidly (i.e., broadly) based deductive process. Not restricted to special knowledge of one case, we could start with a sort of intellectual mystery about the meanings of observed behaviour, develop a hypothesis or theory that "behind" such behaviour lies something like mind, test the hypothesis in everyday life, then either abandon it or revise it, and settle eventually for the version of the hypothesis which fits the data best. Minds, according to this solution, are hypotheses— theoretical postulates—rather than the "real" and experienceable substance that Descartes and the argument from analogy assumed. Rather like scientists testing their hypotheses, and gradually rejecting those which are untenable, this solution suggests that we live
with the least uncomfortable hypotheses we can find. And that is all we ever know in dealing with people—hypotheses about them.

Examples of such theorising and hypothesis-testing in everyday life are not hard to find, which shows why this account seems to make sense. Most of us have probably at some time in our lives been driven in desperation to create or seek theories about, for example, why teenagers grunt, why men avoid talking about problems, and so on. We have all probably also experienced situations when we use a sort of theory even to understand ourselves: saying, for example, ‘I seem to cry all the time; therefore I must be depressed,’ or ‘Maybe I don’t really want to go on this holiday—I keep avoiding booking the flights.’ Theories lead not only to testable predictions but also to changes in practice; a theory that constant weeping indicates depression, or that avoidance indicates dislike, leads to specific actions—for instance, a reduction in the stresses one inflicts on oneself or a cancellation of the holiday one is avoiding. Theories about minds, like theories about diseases, can not only explain why people do what they do, but they can be very useful in knowing how to act appropriately with people (even oneself).

Since the late-twentieth-century version, this solution has taken developmental psychology by storm. Calling itself the theory of mind theory (or the theory-theory for short), it argued that children get to know minds, not only others’ but also their own, through the development of a theory of mind, at about 4 years of age. There are many modern versions of the theory-theory. But all of them assume that we need a rational deductive route to minds: that some abstraction (whether a concept or a hypothesis or a theory) from otherwise meaningless sense data is necessary to derive the idea of the psychological. Prior to this reflective realisation, the sense data are portrayed as a jumble: chaotic, disordered. Once transformed, this knowledge allows the recognition of minds and enables meaningful actions upon them. The theory (or other reflective realisation) is seen as a prerequisite for engagement with other minds and indeed for experiencing one’s own. The pre-theoretical infant could neither understand other people’s actions as anything other than behaviour patterns nor play with or react to others’ psychological states per se.

More recently, others have argued that the infant is an observant analyst of body movements, able to detect all manner of physical contingencies but not able to grasp any mental qualities. The human infant, they say, does have an innate propensity for, and preparedness to engage in, affective interchanges with caregivers. However, this is seen merely as an evolutionary device which leads to the development of a social-intentional scaffold for the infant’s subsequent theoretical ‘discovery’ of minds: these affective interchanges are not in themselves seen as reflecting any awareness on the part of the infant of what the other’s subjective state is, or indeed that the other experiences a subjective state at all. This a priori reluctance to describe infants as intersubjective is telling: it can only make sense within the Cartesian dualism of mind and behaviour. And yet, the dislike of the Cartesian ontology is so strong that these theories sometimes portray intersubjectivity itself as a neo-Cartesian notion. The confusion here is profound: if intersubjectivity were seen as an ascription of one’s own subjectivity to others, it would indeed be a neo-Cartesian concept. However, if intersubjectivity is seen as the engagement between subjectivities, then it is profoundly non-Cartesian. Both the reluctance to acknowledge infant intersubjectivity and the assumption that it must involve privileged access to self stem from the same source: the assumption that mental qualities cannot be directly perceived in others. This is a neo-Cartesian dualism in which the infant can see behavioural patterns but not mentality; the infant is innately driven to engage with caregivers’ affective behaviour but not with their affects; the infant is driven to seek and enjoy control over producing effects on, but not responses in, contingent caregiver behaviour.

The reason for such distinctions is often attributed to the scientifically respectable desire for parsimony. Parsimony, however, exists only in a theoretical context: if, and only if, we accept a theory which says that perceiving the physical is simpler than perceiving the mental, is it more parsimonious to suggest that infants perceive only physical qualities. But if we reject the dualism of separating mind from body (as modern psychology has largely done), it may well be more parsimonious as well as more coherent to reject the dualism of separating the perception of the body from the perception of the mind.

However, even if infants can be said to only perceive the physical, can we really understand subjective experiences through theories about them? Qualia, as the philosophers call the quality of subjective experiences, can be feelings, like the feeling of redness, the feeling of a heart racing, or the feeling of the warmth of a fire seeping over one’s body. How could a theory about mentality and mental experiences ever capture such feelings? First-person theorists are quite right when they insist on direct experience being the basis for knowing other minds. In this notion they differ profoundly from those who espouse theory-theory. It is only the experience of something
which can let us access its feeling qualities. But, as I will discuss in Chapter 3, by presuming that the only access to other people’s experiences is to feel the same as they do, strictly first-person approaches miss the opportunity to portray access to others’ experiences through often different responses to them.

Unlike first-person theories, a theory-theory would have problems not only with sensations but also with emotionality. How can one theorise emotion without ever experiencing it? It would be rather like assuming that a Martian—or better still, one of Star Trek’s famously unemotional Vulcans—given the task of understanding human psychology—could ever do more than build a rather detached theory about human oddities, vulnerability, and excessive emotionality. Their understanding of emotion has to be different from—we would call it more impoverished than—ours, because it is devoid both of the experience of emotion in the self and of the experience of emotional engagements with others. At the very least, it is a different understanding: more like the understanding of a bystander than that of a participant. And any theory-theory is necessarily wedded to this type of detached understanding.

Above all, the theory-theory is a rationalist enterprise. It invites the same criticism which was levelled against Piaget when he argued that the epitome of intellectual development—whether in humans or in evolution—was the emergence of de-contextualised, abstract, scientific thought: an ethnocentrism of sorts. In the same fashion, the theory-theory is practising another culturo-centrism, epitomising the psychologist’s ultimate fallacy: I am a psychologist because I observe people and understand them through detached hypothesis-testing and theories; this must therefore be how anyone does it. It seems, oddly, the perfect example of the practice of analogy and thus is subject to every one of the same criticisms as the argument from analogy!

So We Have a Problem: Once You Postulate the Gap You Can Never Cross It

Once we assume that one or other version of Descartes’ gap exists, the routes open to bridging the gap between minds are inadequate to the task. A first-person route—through recognising the self in the other—emphasises the need for experiencing mind and mental states in order to know them in others. But, although it tries to close the bodily gap between people, it still sees minds as disconnected from each other. The jump to other minds is still seen as an attribution of some sort based on the experience of the self. And although modern versions make action crucial to the discovery of the similarity of self and other, a first-person approach cannot convincingly explain interaction or dialogic engagement. Dialogue needs more than a recognition of similarity—it needs a recognition of difference and the ability to respond as well.

A third-person route, through theorising about minds, deals with some of these problems—for example, the narrowness of such an experiential base by giving the knowledge of other minds a genuinely wide base—but it raises other more unpalatable ones. In ignoring any experiential basis for mind knowledge, the theory-theory makes itself totally attributionist, much less grounded than a simulation view and even less able to explain engagement. Because of this neglect of the role or presence of direct experience, this route is even-handed—the theories of an alien or a non-participant bystander are as good or bad as anyone’s. But, as I will show in later chapters, bystanders’ theories about minds are likely to be a poor substitute for participants’ experience of minds. Both routes, even when they assume that interaction is the essential source of data, run the risk of positing an observer and an observed, of thinking of “mind-reading” primarily as a “spectatorial” process. Both first-person and third-person routes see the knowledge of other minds as an attributional process—something which requires more than just perceiving the psychological. But there is an alternative which starts from questioning the very assumption of a profound gap between minds. In the next chapter I will suggest that this alternative—a second-person approach—changes the way we think about the “gap” and even suggests that psychology’s methods for understanding people need to be changed. As we will see through the rest of the book, it offers a better explanation about what babies do with people in everyday life.