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# 1

## Commonsense Psychology, Theory of Mind and Simulation

What is distinctive about understanding and interacting with other people? Our social relations are diverse in nature; people are encountered as strangers, the holders of certain social roles and statuses, neighbours, competitors, lovers, friends or family. And we interact with each other in all sorts of ways. Negotiating one's way along a busy shopping street alongside several hundred others, with the occasional exchange of nods, smiles or frowns, is very different from a free-flowing conversation with a good friend about assorted trivia. Playing a well-matched and familiar opponent at chess is far removed from answering a request for directions from a stranger. And, despite the diversity of social life, it seems that all our relations with people are somehow different in character from our interactions with inanimate objects. We do not ordinarily experience, understand and interact with each other in the same way that we do rocks, artefacts or (most) non-human animals.<sup>1</sup>

This book is an exploration of the structure of interpersonal understanding. Are there any practical skills, concepts, patterns of reasoning, experiences, feelings and so forth that are specific to our ability to understand and interact with people? If so, which are most central and how do the various elements of interpersonal understanding interconnect? A comprehensive answer to such questions is likely to cast considerable light on our conception of what it is to *be* a person.<sup>2</sup> Given the assumption that interpersonal relations are not just a matter of non-conceptual practical skills but also of applying certain concepts, it seems likely that the concepts we employ to interpret and interact with people will be closely related to, if not the same as, the concepts that constitute our sense of what people are.

So where do we start? Despite the apparent heterogeneity of social life, there is a remarkable degree of consensus concerning what interpersonal

understanding most centrally involves. The same account is explicitly stated or implicitly assumed throughout much recent work in philosophy of mind, cognitive science, developmental psychology and several other disciplines. According to this account, interpersonal understanding is accomplished by means of a 'folk' or 'commonsense' psychology. The terms 'folk' and 'commonsense' are used interchangeably to indicate that it involves an intuitive, *everyday* ability that we acquire independently of what scientific theorising might tell us about mind and behaviour. The term 'psychology' indicates that it is an understanding of *mental states*, involving the deployment of psychological concepts. As Churchland (1998a, p. 3) puts it, folk psychology is 'the prescientific, commonsense conceptual framework that all normally socialized human beings deploy in order to comprehend, predict, explain, and manipulate the behaviour of humans and the higher animals'.

Almost all those who claim or assume that we understand people by employing a folk psychology also agree on (a) what the fundamental constituents of folk psychology are and (b) what its primary role is. In this chapter, I will begin by outlining the orthodox conception of folk psychology and will then offer an overview of issues that arise concerning the cognitive abilities that facilitate it, how they develop during childhood and how they might have evolved. In so doing, my primary aim is to show that, despite heated debates concerning the mechanisms that enable folk psychology, their development and their evolution, almost all participants in these debates share the same view of what folk or commonsense psychology consists of. Although this view is often stated by its proponents in such a way as to make it seem so obvious as to require no justification, it is a view that I have increasingly come to doubt, and this book is the culmination of those doubts. My approach throughout the book is to explore the structure of interpersonal understanding through a critique of commonplace descriptions of folk psychology. The positive account of interpersonal understanding that I develop through this critique is not an elaboration, revision or supplementation of the orthodox account of folk psychology. Instead, it departs from that account in just about every respect, the implication being that what is labelled an 'everyday', 'commonsense' or 'folk' psychology and routinely accepted as the core of human social life is actually nothing of the sort and bears little relation to how people understand each other. A more detailed summary of my various arguments and conclusions is provided in the final section of this chapter.

## **Belief-desire psychology**

How do we understand each other in everyday life? Folk psychology is generally taken to consist primarily of an ability to attribute internal mental states to people on the basis of behavioural observations. The emphasis is on intentional states, including beliefs, desires, perceptions, memories and emotions, and it is generally agreed that the concepts of 'belief' and 'desire' are central. For example, Fodor (1987, x) refers to a 'commonsense belief/desire psychology', indicating that commonsense psychology is most fundamentally a matter of possessing and competently applying the concepts of 'belief' and 'desire'. Belief, desire and other kinds of mental state posited by folk psychology are usually referred to as 'propositional attitudes', meaning that they take the form 'A believes that p', 'B desires that q', 'C remembers that r' and so forth, where p, q and r are propositions with any intelligible content you like, such as 'the car won't start', 'the Empire State Building is in New York', 'it is raining', 'cats don't like dogs' and 'human beings are rational'. As Davies and Stone (1995b, p. 2) put it:

The conceptual repertoire constituting folk psychology includes, predominantly, the concepts of belief and desire and their kin – intention, hope, fear, and the rest – the so-called propositional attitudes.

However, not all mental states are propositional attitudes. For example, pains and itches are not communicable in the form 'B pains or itches that p'. Although such states might have perceived locations and characteristic feels, they do not seem to stand in a relation of 'aboutness' to anything. Thus it is arguable that they are not intentional states (although there is some controversy over this). Some accounts acknowledge that our conceptions of non-intentional mental states also enter into folk psychology. For instance, Goldman (1995, p. 75) enquires as to how we 'arrive at attributions of propositional attitudes (and other mental states)'. Nevertheless, all discussions make clear the centrality of propositional attitudes to interpersonal understanding. Most of them refer exclusively to propositional attitudes and some restrict themselves even more specifically to beliefs and desires. The term 'intentional state' has a more general application than 'propositional attitude', encompassing states such as emotions, which are not generally regarded as propositional attitudes. However, the two terms are sometimes employed interchangeably in the folk psychology literature and I will criticise this practice in Chapter 7.

Most authors writing on folk psychology state or assume that the ‘folk’ think of propositional attitudes as internal states of agents that stand in causal relations to each other and to behaviour, rather than as mere dispositions towards certain behaviours. People are taken to be realists about the internal states they attribute, rather than regarding belief-desire psychology as a useful tool with which to interpret people’s behaviour. In addition, it is generally agreed that there is a clear ‘folk’ distinction between the roles of belief and desire. Beliefs provide information and guide action, whereas desires incorporate goals and thus motivate action.<sup>3</sup>

What role is folk psychology, construed in this way, said to have? The consensus is that our primary aim, when attributing propositional attitudes to someone, is to predict her behaviour. Successful social co-ordination and co-operation require each party to be able to predict what the other will do. And achieving a desirable outcome in non-co-operative and competitive exchanges, which might involve deceit or attempts to conceal intentional states on the part of one or both parties, similarly requires an ability to predict what another person is likely to do. In both kinds of case, it is claimed that the way we do so is to think about the internal causes of a person’s past, current and future behaviour; her beliefs and desires.

Folk psychology is also claimed to play a key role in *explaining* behaviour, although its role in prediction is presumably much more widespread, given that we only seek to explain a small proportion of people’s activities. An explanation might be offered in conjunction with a prediction or we might want to explain a behaviour that has already occurred, whether that behaviour is one’s friend kicking a traffic cone five minutes ago or Napoleon invading Russia in 1812. Such explanations, it is claimed, often look something like ‘B acted in such and such a way because B believed that p and desired that q’ but can involve much more elaborate combinations of beliefs, desires and other intentional states, interconnected in systematic ways.

Let us assume for now that ‘commonsense’ belief-desire psychology is an adequate characterisation of something that we do. In which circumstances do we employ it? Consider the following scenarios:

- An intimate conversation between lovers
- A professional meeting with several colleagues
- Buying a loaf of bread from someone in a shop
- Anticipating the actions of someone approaching you on a quiet, poorly lit street

Lecturing to a group of students  
A telephone conversation with an old friend  
A job interview  
An email exchange with an unfamiliar person  
Negotiating one's way past others on a busy shopping street  
Playing a game of chess  
Taking an order in a restaurant  
Asking for directions from a stranger  
Being on holiday in a foreign country and trying to communicate with an irate stranger in the absence of a shared language  
Exchanging nods with a colleague as you pass in the corridor.

Social life is not homogeneous and, at first glance, it would seem that there are many different kinds of social situation, which make quite different demands on us and are likely to draw on a wide range of abilities. One way to address the issue of where belief-desire psychology comes into play would be to rigorously classify social situations and tasks, dividing them into types and looking at the various demands that each type places upon us. However, proponents of belief-desire psychology have not done so. One reason for this omission is that many of them assume the centrality of belief-desire psychology to *all* social life, thus dispensing with the need for a more specific account of where it does and does not apply. For example, Wellman (1990, p. 1) states that 'an understanding of the mind is also fundamental to an understanding of the social world. Children come to understand that the overt actions of self and others are the products of internal mental states such as beliefs and desires'. Frith and Happé (1999, p. 2) similarly claim that belief-desire psychology 'appears to be a prerequisite for normal social interaction: in everyday life we make sense of each other's behaviour by appeal to a belief-desire psychology'. These claims and many others like them suggest that the ability to attribute internal propositional attitude states is taken to lie at the core of all the social scenarios that I listed above. Hence recent debates over folk psychology are not concerned with *whether* belief-desire psychology adequately characterises something that we do; most participants assume that its employment is very widespread or even ubiquitous. Instead, the emphasis has been on two broad issues:

- (a) Whether commonsense belief-desire psychology will cohere with what empirical science tells us about the mind.
- (b) Which mechanisms underlie our folk psychological abilities, how these mechanisms develop during childhood and how they evolved.

Turning first of all to (a), under the assumption that we are, in everyday life, committed to the existence of internal propositional attitude states, there is the question of whether commonsense has got it right. Fodor (1987) assumes that people are realists about propositional attitudes and also argues that folk realism is defensible, which is fortunate because he thinks that folk psychology is utterly indispensable. Although we only tend to explicitly contemplate people's beliefs and desires when things do not proceed as expected, Fodor claims that belief-psychology is also quietly at work on all those other occasions when nothing untoward happens. He remarks that, while misattributions of intentional states are the stuff of 'excellent theatre', 'the successes of commonsense psychology, by contrast, are ubiquitous and – for that very reason – practically invisible' (1987, p. 2). Hence explicit utterances of belief-desire psychology are just the tip of the iceberg. Fodor construes our largely implicit understanding of mental states as a systematic and highly complicated 'theory', which has considerable predictive power and incorporates law-like generalisations concerning the relationships between concepts such as 'belief', 'desire', 'intention' and 'action' (p. 7). This theory, he thinks, is so engrained in our psychology that we could not manage without it. To quote a well-known passage, 'if commonsense intentional psychology really were to collapse, that would be, beyond comparison, the greatest intellectual catastrophe in the history of our species' (1987, xii). He goes on to suggest that, if the concepts of representation and computation are combined, the result is compatible with what the core of commonsense psychology tells us about mental states. So our most deeply cherished theory is left largely intact.

A very different view is offered by Churchland (1981, 1998a,b), who disagrees concerning both the utility of folk psychology and the reality of psychological entities, such as propositional attitudes. Like Fodor, Churchland construes folk psychology as an everyday, pre-scientific *theory* of mindedness. He claims that this theory has considerable shortcomings. Despite the more general conceptual integration occurring between the empirical sciences, folk psychology remains isolated, cut off from an increasingly cohesive scientific picture of the world. While the sciences have progressed, folk psychology has failed to change, to expand, to accommodate new discoveries or to interact productively with the mature sciences. Furthermore, there just does not seem to be a place in current neuroscience for entities like propositional attitude states, suggesting that there are no such things to be found residing in our heads. Churchland adds that the predictive power of folk psychology is much over-rated. In fact, it has nothing informative to say about much of our mental lives, including dreams, perceptual illusions and most kinds of psychopathology.

Thus it has all the hallmarks of a degenerating research program, the scope of which is progressively narrowing. He therefore advocates 'eliminativism' concerning folk psychology, anticipating its replacement, rather than revision, once neuroscience has reached a sufficiently advanced stage.

However, there is an important sense in which Churchland does not reject the orthodox account of folk psychology. Like Fodor, he assumes that propositional attitude psychology *does* play a central role in everyday social life. In fact, he says that it 'embodies our baseline understanding of the cognitive, affective, and purposive nature of people' (1998a, p. 3). What he questions is (a) whether folk realism concerning propositional attitudes is defensible and (b) whether propositional attitude psychology is as successful as it is made out to be.<sup>4</sup>

A position lying somewhere in between Fodor's realism and Churchland's eliminativism is offered by Dennett (1987, 1991a), who refers to folk psychology as the adoption of an 'intentional stance'. According to Dennett, the intentional stance is a highly effective predictive device when deployed upon certain entities, especially other human beings. However, its predictive power is not due to its accuracy at detecting internal states but to its picking up on certain patterns in behaviour. These patterns do not, strictly speaking, reside *in* the behaviour or cause it, given that the same behaviour and all its causes could be comprehensively described from a purely 'physical stance' that made no reference to intentional states. However, any physical description of human behaviour able to support accurate prediction would be very complicated indeed and far too cumbersome to use in everyday social situations, where time and cognitive resources are limited. What the intentional stance manages to do is utilise much coarser, less detailed patterns that have far greater practical utility when it comes to interpreting, predicting and explaining behaviour. By analogy a simple road map is a far more effective tool for the driver than a detailed description of the environment, including every bend, tree and hill. The map incorporates less detailed but more useful patterns. The patterns revealed through an intentional stance take the form of interconnected intentional states, bound together in systematic ways by a presumption of rationality that is constitutive of belief-desire psychology.<sup>5</sup> Dennett describes the stance as follows:

. . . first you decide to treat the object whose behaviour is to be predicted as a rational agent; then you figure out what beliefs that agent ought to have, given its place in the world and its purpose. Then you figure out what desires it ought to have, on the same considerations, and finally you predict that this rational agent will act to further its

goals in the light of its beliefs. A little practical reasoning from the chosen set of beliefs and desires will in many – but not all – instances yield a decision about what the agent ought to do; that is what you predict the agent *will* do.

(1987, p. 17)

As is clear from this passage, although Dennett is not committed to the view that beliefs and desires are internal states of an organism, with distinct causal roles, he does accept that they are central to interpersonal interpretation, the goal of which is to predict what an organism will do. Furthermore, although Dennett himself is not a realist about propositional attitudes, construed as states in heads, it is unclear whether or not he takes the ‘folk’ who adopt the intentional stance to be realists. One could maintain both that people are realists about internal intentional states when they adopt an intentional stance and that the realism integral to the intentional stance turns out to be misguided, despite it being part of a very useful predictive device.<sup>6</sup>

In summary then, folk psychology is construed as an everyday, pre-scientific ability to attribute propositional attitudes, principally beliefs and desires. It is generally assumed that the ‘folk’ take these to be internal causes of behaviour, which stand in systematic relations to each other, although whether folk realism is defensible turns out to be a tricky philosophical issue. The ability to apply folk psychology is often taken to be central to all social life. Even when we are not explicitly thinking about people’s mental states, we are, it is claimed, implicitly assigning them in order to predict behaviour.

### **Theory or Simulation?**

Recent debates concerning folk psychology do not address the question of what we do but, rather, that of how we do it. Churchland (1981), Fodor (1987) and many others argue that folk psychology is a matter of possessing and applying a *theory* of mental states. In everyday life, we are oblivious to the full complexity of the theory, as it is largely tacit. However, everyday utterances are claimed to give us some clues as to its structure, other aspects of which can be revealed through more rigorous philosophical and scientific scrutiny. Simple examples along the following lines are often offered:

B desires that q.

B believes that action p will achieve q.

All other things being equal, B will do p.

This sort of example is generally taken to be an everyday 'platitude', the kind of claim that any sufficiently educated person will accept without hesitation. A vast number of such platitudes can be listed, all of which seem to incorporate structured relations between kinds of mental state and action. It is arguable that our appreciation of such platitudes is symptomatic of a unified, conceptual appreciation of the connections between mental states and actions. This appreciation, it is claimed, involves an elaborate set of law-like generalisations relating mental states to each other and to behaviour, a largely tacit theory that we ordinarily apply effortlessly when understanding other people. But what is meant by the claim that folk psychology involves possession and application of a *theory*? As already noted, Fodor emphasises concepts, law-like generalisations and predictive power. However, more recent discussions have offered further criteria for theory-hood. Botterill (1996) emphasises the need for a theory to contain '*principles that provide a systematic integration of knowledge*' (p. 107). That is, a theory must comprise a cohesive whole that unites various phenomena under a common framework and be simpler in structure than an inventory of the phenomena that it encompasses. As Botterill puts it, a theory must be more like Newtonian mechanics than the disparate snippets of advice that make up 'gardening lore' (p. 109). He lists several other criteria, including reference to unobservables, incorporation of explicitly or implicitly defined concepts, employment to predict and explain phenomena and an ability to handle counterfactuals (p. 106). Given these criteria, folk psychology seems to fit the bill. All manner of behaviours are brought together under a common framework, which is employed to predict and explain what people do. This framework is clearly conceptual, at least in part, given the explicit inclusion of concepts such as 'belief', 'desire' and 'intention'. Mental states are generally taken to be unobservable causes of behaviour. Furthermore, beliefs and desires often feature in counterfactual claims. For example, if I had not desired to study philosophy, I would have studied medicine instead.<sup>7</sup>

An alternative to the 'theory of mind' account of folk psychology emerged in 1986, in the guise of 'simulation theory'.<sup>8</sup> While 'theory of mind' or, as it is sometimes known, the 'theory theory', emphasises possession and deployment of a body of conceptual knowledge concerning mental states and their interrelations, variants of simulation theory emphasise the role of practical skills, of knowing how to do something, rather than knowing that something is the case. The basic idea is fairly simple; under the assumption that my own cognitive processes are sufficiently similar to those of other people, I can, given the right inputs, use the outputs of those processes to predict what they will do. I can do

so without resorting to a theoretical knowledge of how the relevant cognitive processes work, as the assumption that I am like them in certain relevant respects takes the place of a theory of mind. As Heal puts it:

I can harness all my complex theoretical knowledge about the world and my ability to imagine to yield an insight into other people *without any further elaborate theorizing about them*. Only one simple assumption is needed: that they are like me in being thinkers, that they possess the same fundamental cognitive capacities and propensities that I do.

(1995a, p. 47)

She suggests that this procedure is particularly useful when it comes to predicting what others will do. The primary role of simulation is to get you from another person's current mental states to their predicted mental states and/or behaviour.<sup>9</sup> One takes the person's current mental states and feeds them into one's own practical reasoning mechanism. Instead of acting on the basis of the output, one ascribes it to the other person.

However, the question arises as to how one acquires the right input states. How does one pick up on those features of the environment that are psychologically relevant and recognise which mental states a person is likely to have in a given situation? It is arguable that simulation presupposes a background of theory, given that further procedures, which may well involve concepts, inferences, law-like generalisations and so forth, might well be needed to arrive at an appropriate starting point for the simulation. It is also arguable that theory plays a role in deciding when simulation is likely to be effective. In certain cases, it may well be that the two systems are not sufficiently similar to warrant the assumption of a common output, even given the same input states.

Others have made stronger claims on behalf of the role of simulation. For example, Goldman (1995, p. 83) maintains that it not only gets us from current to future states but is the 'fundamental method' by which we ascribe mental states to others, including non-propositional states, such as pains and emotions. To acquire knowledge of another person's current mental states, one considers what one would perceive and think in her situation and ascribes, via inference or analogy, the same or similar states to her. To predict her future mental states and actions, one just maintains the analogy and asks what one would think and do, given such a psychological starting point. An objection to this view is that it faces the charge of phenomenological implausibility. Given that we are frequently unaware of using ourselves as models in order to

predict what others will think and do, what grounds are there for maintaining that such practices are widespread? Heal suggests that simulation is a 'personal level' activity; it is something that we knowingly do via an exercise of the imagination and thus something that we should be aware of doing. But phenomenological implausibility is perhaps not a problem for her, given that she takes its role to be more limited. Goldman deals with the problem by suggesting, unlike Heal, that the process often proceeds tacitly and is not always phenomenologically accessible. Furthermore, although he claims that simulation is fundamental to our understanding of others, he adds that it need not be something we always rely upon. We first come to understand another person via simulation but, with increasing familiarity, we might later rely on scripts and routines instead.

Gordon (1995a,b,c, 1996) argues that simulation plays an even more fundamental role. It not only comprises our most basic access to others' intentional states but is also the source of the concept 'belief'. He offers an account of simulation that does not include any reliance at all on inference, analogy or theory. According to this account, simulation involves two imaginative shifts. First of all, I imagine what I would do in another person's situation. The next shift is to imagine what she will do in her situation, which requires somehow adopting her perspective on the world, rather than my perspective in her situation (1995a, p. 63). Having undergone this perspectival shift, there is no additional need to simulate specific mental states or cognitive processes. Once I have adopted the other person's perspective, everything else takes care of itself; mental states arise in exactly the same way that they would if I had retained my own egocentric perspective. The shift is from self to other, rather than from having my beliefs to adopting her beliefs; an 'egocentric shift' or change of 'point of view' is what does the work (1995b, p. 56). Hence I do not entertain the thought 'B believes that p' when simulating but take it to be the case that p, from within B's perspective. The concept of belief, Gordon argues, originates in the ability to tie a statement of fact to a context of simulation. I adopt B's perspective and, in so doing, take p to be the case; 'B believes that p' means the occurrence of 'p' within a B simulation (1995a, p. 68).

One potential problem with this view is that, although theory seems to be absent, the ability to adopt another person's point of view remains unexplained. Gordon attributes it to 'our capacity for recentering our egocentric maps' (1995b, p. 63). However, there is the question of what this capacity involves. Magical transference into another's psychological predicament is presumably not an acceptable solution; what is

required is an appropriate series of adjustments to my own psychology (Gordon, 1995b, p. 57). But a problem with this is that my adjusted psychology is still 'mine' and so a grasp of what it is to be 'another psychology', rather than 'a modification of my own egocentric point of view', remains unaccounted for. Even assuming that adjustments to one's own psychology can yield reliable predictions of others' behaviour, there is still the question of which adjustments to make and this opens the door for some kind of theory, given that a systematic body of knowledge could underlie the ability to achieve the right kinds of egocentric shift.

As with Goldman's account, there is also the concern of phenomenological implausibility. When I interpret and interact with other people, I seldom undergo an explicit shift in perspective. Gordon, like Goldman, suggests that simulation need not be an achievement that we are always able to verbally report. It can operate at a 'sub-verbal level', enabling us to anticipate the behaviour of others and perhaps, sometimes, our own behaviour. He states that we employ our own cognitive mechanisms 'offline', indicating that simulation is something achieved by the mechanisms that underlie folk psychology, rather than something that we knowingly perform (1995a, p. 70).<sup>10</sup> However, it remains unclear how one is supposed to undergo a change in one's 'point of view' without any associated phenomenology.

Hence there are quite different conceptions of what simulation is and what it achieves, each with different limitations and shortcomings. But what appeal do any of these have over the theory theory? Heal (1995b, p. 36) stresses the relative economy of simulation. In most everyday situations, an enormous amount of information could potentially enter into our deliberations. In getting from input states to output states, any number of factors could come into play. But we somehow manage to focus on only a few of them, rather than going off in all manner of directions and getting nowhere. Our ability to interpret each other must somehow accommodate this grasp of relevance. A 'theory of relevance' would be cumbersome to say the least, and theory theorists have given little indication of whether and how such a theory might operate. A far more economical solution, Heal suggests, would be to let our own grasp of relevance do the job without relying on an additional theory of how it does that job (1996, p. 84).<sup>11</sup> This leaves the issue of how we achieve a grasp of relevance unresolved. However, the theory theory has to deal with both a grasp of relevance and a theory of relevance; one mystery is surely better than two.

Heal also suggests that our ability to interpret others leans heavily on the specific contents of mental states, rather than just a knowledge of the systematic connections that exist between kinds of mental state. She offers the example of whether John will think a jacket is garish (1995b, p. 39). If you know that (a) John thinks all bright colours are garish and (b) the jacket is scarlet, you will most likely conclude that John will believe the jacket to be garish. The inference requires the knowledge that 'scarlet is bright', and this knowledge is content-specific. Unless a theory of mind is also a theory of the interconnections that apply between all our concepts, it seems that simulation is a better strategy for handling content. In the simplest case, one just assumes that others will have the same conceptual knowledge as oneself.

Another problem with the theory theory is its emphasis on systematic relations that apply between types of mental state, relations that are often claimed to be constitutive of rationality. It is arguable that certain examples of practical reasoning offered by theory theorists, marketed as platitudes, are actually rather poor reflections of how people usually reason and of the kinds of conclusions people are likely to draw about actions, given certain beliefs. To quote Goldman:

One of the favorite sorts of platitudes offered by philosophers is something like 'If x believes "p only if q" and x desires p, then x desires q'. But the relationship formulated by this 'platitude' simply does not systematically obtain.

(1995, p. 79)

Goldman cites the possibility of contextually inactive beliefs and desires as a reason why such 'platitudes' might fail to apply. (I will discuss numerous further counter-examples to so-called folk psychological platitudes in Chapter 7.) An advantage of simulation is that it does not require an account of precisely how people reason. All it needs is the assumption that, regardless of how people reason, they at least reason in a similar fashion.

As theory and simulation theories have different limitations, a popular option is to maintain that they both have some role to play in enabling folk psychology. As Stone and Davies (1996, p. 136) remark:

The mental simulation debate has reached a stage at which there is considerable agreement about the need to develop hybrid theories – theories that postulate both theory and simulation, and then spell out the way in which those two components interact.

Most theory theorists continue to maintain that simulation cannot be fundamental to our grasp of mindedness, as the ability to utilise any isomorphism between self and other will fall back on a prior understanding of relevant similarities and differences between them (for example, Carruthers, 1996, p. 22). In other words, simulation presupposes an understanding of which entities are appropriate objects for simulation. However, there is general acknowledgement that simulation will have at least some role to play, if only as 'an enrichment of the operation of theory' (Botterill and Carruthers, 1999, p. 89).

The question of how theory and simulation might relate to each other is complicated by there being several different conceptions of simulation. In order to determine the role played by theory, the kind of theoretical knowledge needed and its required level of sophistication, there is the need to ascertain what work and how much work simulation routines do. As discussed, Heal, Goldman and Gordon offer differing accounts of the role and scope of simulation. Perhaps more pressing is the concern that the nature of 'simulation' remains unclear. Gordon emphasises a perspectival transformation, whereas Heal and Goldman both focus on simulating practical reasoning. There is also disagreement as to whether simulation involves an exercise of the imagination or the operation of sub-personal mechanisms. And a further distinction can be made between simulating and being a simulation. Heal (1996, p. 76) states:

By a simulation of X we shall understand something, Y, which is similar enough to X in its intrinsic nature for tendencies to diachronic development which are inherent in X to have parallels in Y.

However, X understanding Y in virtue of similarities between X and Y is not the same as X actively modelling Y. In more recent work, Heal employs the term 'co-cognition' rather than 'simulation', co-cognition being 'just a fancy name for the everyday notion of thinking about the same subject matter' (1998, p. 483). Co-cognition does not involve taking on another's perspective or actively modelling her psychology. Heal goes on to distinguish different versions of the simulationist claim and remarks that, if the term 'simulation' is employed to encompass them all, it will be of 'limited usefulness' (p. 479).<sup>12</sup>

One possibility is that several different kinds of modelling and co-cognition might support or be supported by one or more bodies of knowledge. Recent work has moved towards hybrid models that combine theory with variants of simulation in a number of different

ways and there is a trend towards increasingly elaborate models of theory-simulation interaction. For example, Nichols and Stich offer what they describe as a 'motley array' of interacting mechanisms, portrayed diagrammatically as boxes in a flow chart (2003, p. 212).

It is debatable how the simulation-theory debate might relate to the prospects for eliminativism concerning folk psychology. One cannot eliminate a theory if there is no theory. However, simulation still incorporates the concepts of 'belief' and 'desire'. One can debate the reality of such entities, without assuming that they are embedded in a theory. A case could also be made for the elimination of a practice like simulation in certain contexts, if it turned out to be ineffective and was something that we had at least some control over.

Another issue is that of how the simulation-theory debate relates to intuitive distinctions between first- and third-person access to mental states. We might employ a theory of mind to interpret our own mental states, as well as those of others. Even if this is so, as many theory theorists have claimed, it is likely that the theory will be deployed more accurately and perhaps differently in the first-person case, given that we generally have much more information about our own activities, which might be accessed through means other than behavioural observation. Simulation theories, in contrast, might be construed as privileging first-person knowledge of mental states over knowledge of others' mental states, given that we use ourselves as models in order to ascribe mental states to others. However, simulation could also be argued to play a number of roles in understanding and predicting first-person mental states and behaviours. Taking our past mental states as inputs might serve to make our reasons for actions clearer to us. In addition, taking possible future situations as inputs could be of considerable help when it comes to planning behaviour. And recall that, on Gordon's view, the capacity to undergo a shift of perspective is constitutive of the concept of belief. Hence the ability to think about our own beliefs presupposes an appreciation of other people as believers. So there are various options regarding the relationship between first- and third-person theory and simulation.<sup>13</sup>

Despite the increasing complexity and technicality of debates over how folk psychology is enabled, how useful it is and whether it is ultimately to be usurped by empirical science, all these debates remain constrained by a shared account of what folk psychology is. The view that the principal accomplishment of folk psychology is the attribution of propositional attitudes, in the service of prediction and explanation, is as established among the simulationist camp as it is among the theory

theorists. Goldman (1995, p. 81) states that his account is primarily concerned with 'intentional explanation and prediction'. Gordon (1995a) offers 'an account of the nature of folk psychology' (p. 60), accepting that 'explanations are often couched in terms of beliefs, desires, and other propositional attitudes' and that 'predictions, particularly predictions of the behaviour of others, are often made on the basis of attributions of such states' (p. 66). Heal (1995b, p. 34) similarly emphasises beliefs, desires and intentions.

Hence the term 'folk psychology' can be employed to refer to a view that is common to both simulation and theory camps, although it is sometimes used in a more specific sense, to refer to the theory theory. The term 'theory of mind' is also employed in both broad and narrow senses, to refer either to the view that everyday interpersonal understanding involves attributing propositional attitudes or to the more specific view that this is achieved by means of a theory (Carruthers and Smith, 1996, p. 1). Throughout this book, I will only use 'theory of mind' in its more restrictive sense, while using 'folk psychology' (which I take to be interchangeable with 'commonsense psychology') in a broader way, to encompass the claims that (a) we have a commonsense understanding of mindedness and (b) this understanding consists primarily of an ability to attribute internal mental states, principally beliefs and desires, in order to predict and explain behaviour. Hence 'folk psychology' is not just 'whatever everyday interpersonal understanding consists of'; it is everyday interpersonal understanding conceived of in a particular way. Throughout the remainder of this discussion, I will abbreviate 'folk psychology', understood as (a) and (b), rather than just (a), to FP.<sup>14</sup>

## **Development and evolution**

The simulation-theory debate overlaps with a substantial body of work on the development and evolution of folk psychological ability. Regardless of whether one advocates a theory, simulation or hybrid account, there is the question of whether the abilities that facilitate propositional attitude attribution are innate or acquired. Most writers on the topic are of the view that FP is largely innate. Evidence for this is drawn from a variety of empirical findings, but there has been particular emphasis on variants of the false belief task, which was devised by Wimmer and Perner (1983) to test subjects' ability to attribute a false belief to a puppet, having observed the verbal and non-verbal performances of two interacting puppets. Wimmer and Perner found that the ability arose in most typical children between four and five years of age.

Later variants of the task indicate that it is present in even younger children but do not challenge the claim that it arises at around the same age in most cases (see, for example, Wellman, Cross and Watson, 2001).<sup>15</sup> That FP is a complex skill, which first appears at the same early age in most children without any explicit training, has been taken by many to indicate that it is innate (for example, Carruthers, 1996).

Of course, an ability to attribute beliefs and desires is not demonstrated from birth. However, there are numerous characteristics that are taken to be largely innate but which do not present themselves on day one, including teeth, language and an ability to walk. Furthermore, it is possible that younger children do possess the relevant concepts but have not yet developed the ability to apply them (Fodor, 1995).

In contrast to the view that FP is largely a matter of innate ability, Gopnik (1996a,b) argues for a version of the theory theory, according to which FP is acquired in much the same manner that we acquire scientific theories. In response to the objection that an acquired theory would be unlikely to develop at the same early age in all children, Gopnik suggests that young children have access to a massive body of shared information, which makes convergence upon a common theory almost inevitable. It is not so much that they are 'little scientists' but rather that scientific theorising is made possible by mechanisms that have the primary function of facilitating childhood learning (1996b, p. 485). The view that scientists are 'big children' or that children are 'little scientists' has been challenged by others who claim that children cannot have the cognitive skills required for theory acquisition unless they already have a concept of false belief. How could one test a theory without entertaining the possibility of its falsehood? So it is unclear how the child scientist could obtain FP via a process analogous to theorising and hypothesis testing unless she had already had FP (Carruthers, 1996, p. 23).

Closely related to the question of innateness is that of whether FP is 'modular' in nature. Empirical findings are often taken to show that the ability to attribute mental states can be selectively impaired, leaving more general intelligence largely intact. For example, autistic children tend to perform very poorly on false belief tasks, compared to children with Down's Syndrome who have a lower general intelligence (Baron-Cohen, 1995, Chapter 5).<sup>16</sup> Hence it has been proposed that FP ability depends upon a specialised cognitive mechanism, dedicated to the task of understanding other minds. Such task-specific mechanisms are often referred to as 'modules'. The term was coined by Fodor (1983), who conceived of modules as cognitive input systems, the operations of which

are insulated from the influence of other cognitive systems. Fodorian modules have a range of distinctive properties, including domain specificity, characteristic breakdown patterns, high processing speed and a fixed neural architecture (Fodor, 1983, Chapter 3). Recent conceptions of modularity tend to be more liberal. Certain authors, including Baron-Cohen (1995), adopt an account of modularity along the lines of that suggested by Cosmides and Tooby (1992). According to this account, modules are functionally individuated cognitive systems. They are 'domain-specific', meaning that they incorporate representations and/or processes that are dedicated to the solution of specific environmental problems. However, the possibility of at least some communication between modular processes is not ruled out. Modularity, according to Cosmides and Tooby, is not restricted to input systems. Instead, they propose that our entire cognitive architecture is modular in nature. As Tooby and Cosmides put it in their preface to Baron-Cohen (1995),

. . . our cognitive architecture resembles a confederation of hundreds or thousands of functionally dedicated computers (often called modules) designed to solve adaptive problems endemic to our hunter-gatherer ancestors.

(xiii–xiv)<sup>17</sup>

Both simulation and theory theories are compatible with modularity. Gordon (1995a, p. 70) suggests the possibility of a cognitive module dedicated to the process of simulation. Botterill and Carruthers (1999, Chapter 3) emphasise the role of theory over simulation but also propose that the 'mind-reading system' is modular in nature.<sup>18</sup> If FP rests on modular abilities, it could be that several modules are involved. Baron-Cohen (1995, Chapter 4) proposes three systems that operate as developmental precursors to a fully fledged FP: an 'intentionality detector', an 'eye-direction detector' and a 'shared attention mechanism'. These come to operate in conjunction with a 'theory of mind mechanism' that develops later.<sup>19</sup> Happé and Loth (2002) speculate that we have different modules for processing communicative gestures and intentional actions. And Sperber and Wilson (2002) postulate a pragmatics sub-module that somehow enables us to make the contextual assumptions required to interpret speaker meaning.

It has also been argued that some ingredients of FP are non-modular in nature. Modular systems draw on a limited range of inputs and processes. But consider the task of figuring out whether someone is hiding a belief or explicitly attempting to deceive you. In coming to this

conclusion, you might need to draw on information from a range of sources and piece it together in an intricate, innovative way. Thus the more demanding cases of belief attribution arguably require a degree of cognitive flexibility that cannot be achieved by a wholly modular process and draw instead on a wide range of cognitive resources (Currie and Sterelny, 2000).

The topic of modularity is closely related to that of how FP evolved. According to Cosmides and Tooby (1992), modules are functionally individuated and the function of a device is the role that it has been historically selected to perform.<sup>20</sup> However, even if modules are, by definition, products of natural selection, this need not entail that they are innate, in the sense of being wholly or largely specified by the genes or assembled by the time of birth. Although, as discussed, Gopnik rejects modularity, associating it with the 'innate theory' view and contrasting it with her own account of the child scientist (1996a, p. 169), it is possible to forge a middle path between the two views. A module could be acquired through a complicated developmental process, involving learning. That process could, at the same time, be significantly constrained by innate adaptations. Gopnik does acknowledge an 'initial innate theory' that the child starts off with, which is progressively revised and elaborated through learning, with FP as the usual outcome (1996a, p. 172). Given such a view, it could still be maintained that FP is an evolved adaptation. The development of any biological structure is reliant on certain environmental constants; it could be the case both that FP is a biological adaptation and that the innate structures that predispose us towards it make use of environmental factors to facilitate its assembly. Various accounts of FP development emphasise this kind of developmental complexity, suggesting that an FP module is the outcome of a series of interactions between innate abilities, learning environments and developmental stages. For example, Garfield, Peterson and Perry (2001, p. 502) suggest that FP depends on an 'acquired module', arising through progressive developmental stages which themselves depend on immersion in certain kinds of social environments. If FP develops in some such fashion, the distinction between a largely innate theory and a theory acquired through learning looks unclear to say the least. That said, perhaps the most popular view is still the one that runs a theory theory of FP together with modularity and innateness. As summarised by Davies and Stone (1995a, p. 5), it is the view that 'tacit knowledge of the theory is innate, that it is embodied in a special-purpose module of the mind, and that development is predominantly a matter of maturation rather than of learning'.<sup>21</sup>

Let us assume for now that FP, regardless of whether it depends on a theory or an ability to simulate, originated as an evolved adaptation specific to an understanding of mindedness. Why did it evolve? In other words, what was the historical advantage of being able to attribute beliefs and desires to conspecifics? One popular view has its origins in Humphrey (1976), who argues that the greatest environmental problems faced by our ancestors involved not the inanimate environment or other species of organism but members of one's own species. The most successful social organisms will be those that are able to detect deception, get away with deceiving others and anticipate others' behaviour to get the most out of strategic interaction. Thus Humphrey suggests that characteristically human intelligence arose as a result of selection pressures favouring strategic social abilities. Being able to detect a false belief is not the same as being able to figure out that an expressed belief differs from a concealed belief. Nor is it sufficient for instilling false beliefs in others. However, an ability to distinguish between belief and behaviour, coupled with the recognition that beliefs differ from person to person, is at least a significant step towards successful deceit and deceit detection.<sup>22</sup> Hence it has been argued that mind reading abilities progressively developed in response to selection pressures favouring what is often termed 'Machiavellian intelligence' (Byrne and Whiten, eds, 1988). There are several different understandings of this term. It need not encompass only deceitful strategies and can also accommodate a diversity of co-operative behaviours that ultimately lead to personal gain (Byrne and Whiten, 1997). However, even if selection pressures relating to social competition and strategic interaction did play a significant role in human cognitive evolution and, more specifically, social understanding, it is likely that numerous additional factors, associated with all sorts of circumstances, also played a role (Byrne, 1997). Nevertheless FP, with its emphasis on detecting hidden mental states, seems especially well-tailored to strategic interactions involving deceit and concealment.

### **A place to start**

In what follows, I will not be immersing myself any further in complicated debates over whether FP is enabled by theory or simulation, whether it is modular, how it develops, why it evolved and whether it will be complemented by what science tells us about minds. Instead, I want to focus on the common presupposition that shapes all such discussions, FP itself. The reason I have included, in this first chapter, a

lengthy preamble about accounts of the mechanisms that enable FP, their development and their evolution is that although they are not my primary focus, the critique of FP developed here will have various repercussions for them. An ability to attribute internal propositional attitudes on the basis of behavioural observations, so as to facilitate prediction and explanation of behaviour, is almost always accepted as a starting point for enquiry. Should it turn out that commonplace descriptions of FP are incomplete, misleading or plain wrong, accounts of the nature, evolution and development of mechanisms that enable FP and of the relationship between FP and scientific psychology will most likely need to be rejected or at least significantly revised. Some such repercussions will be indicated in later chapters.

But, one might ask, what could possibly be wrong with FP? After all, it is so engrained in philosophy of mind and cognitive science as to seem utterly uncontroversial. And how could it be controversial? It is just a simple description of something that we do. However, I begin in Chapter 2 by arguing that FP is not quite so commonsensical as it is made out to be. In so doing, I will not simply ask whether FP is commonsense but will instead enquire as to what is actually meant by the term 'commonsense'. It turns out that everyday 'folk', who have not been taught all about belief-desire psychology and told that it is commonsense, do not find FP at all obvious. Thus 'commonsense psychology' cannot mean a description of interpersonal understanding that is apparent to all. I consider various other conceptions of commonsense and conclude that FP is not 'commonsense' in any sense of the term. It is instead a philosophical position as debatable as any other. The only difference between it and most other philosophical positions is that no good arguments seem to have been offered to the effect that FP is what we actually do in everyday life.

Having established that FP is in fact a philosophical account of interpersonal understanding, in the remainder of the book I investigate the plausibility of that account, focusing on two central questions:

- (a) Which social accomplishments involve FP?
- (b) Is FP an adequate description of anything that we do?

Chapters 3 and 4 address the scope of FP. I suggest that much of our ability to understand and interact with one another depends not on FP but on a shared understanding of interlocking social roles, social norms and artefact functions. Frameworks of norms, roles and functions, I claim, are generally understood as features of the everyday world, and they are

taken for granted by most explicit efforts at interpersonal interpretation and interaction. This kind of appreciation of the shared world is, I argue, presupposed by FP rather than accommodated by it. I also note that proponents of FP frequently miscast an understanding of the shared social world in terms of the attribution of propositional attitudes. Hence the role of FP is, at the very least, over-emphasised.

Chapters 5–7 turn from the scope of FP to the question of whether it is an adequate description of anything that we do. The claim that we attribute internal propositional attitude states on the basis of behavioural observations might seem innocent. However, descriptions of FP tend to incorporate a number of contestable assumptions. I focus on the following:

- (a) Mental states cannot be perceived and must therefore be inferred on the basis of behaviour.
- (b) Mental states are internal states that cause behaviour.
- (c) Interpersonal understanding is best construed in terms of the detached observation of person B by person A, rather than in terms of interaction between A and B.
- (d) Understanding others is a matter of deploying one's internal cognitive abilities, rather than a cognitive achievement that is partly enabled by interaction with them.
- (e) Adopting the third-person perspective towards somebody and interpreting the behaviour of a 'she' or 'he' is typical of interpersonal understanding. Addressing someone in the second person, as 'you', does not involve anything extra.
- (f) Everyday interpersonal understanding incorporates the concepts of 'belief' and 'desire' and a clear distinction between them.

Chapter 5 challenges (a) and (b), by suggesting that we are ordinarily able to perceive the goal structure of actions, in addition to the meanings of many gestures and expressions. Many feelings, emotions and thoughts are partially constituted by gesture, expression and action. Hence mental states are not always wholly internal causes of behaviour; they are often partly embodied in perceivable behaviour. I bring this conclusion together with the conclusions of Chapters 3 and 4, to show that perception of action, expression and gesture in a shared context of norms, roles and functions is, in many cases, all we need to understand what people are doing and why.

Chapter 6 takes issue with (c), (d) and (e). I suggest that an emphasis on those social encounters where we address each other as 'you' can

provide more insight into what it is to relate to someone as a *person* than the traditional focus on detached observation of a 'he' or 'she'. I note that I-you relations are generally characterised by expressive, gestural and dialogical interaction between participants. This interaction, I argue, is itself constitutive of our ability to understand each other. Interpersonal understanding is not usually a matter of deploying internal abilities in observational contexts. Instead, the abilities partly reside in the interaction. Generalising from the I-you case, I suggest that all instances of *personal* understanding incorporate a distinctive kind of bodily responsiveness. Indeed, taking someone to be a *person* involves adopting a *personal stance*, comprised of a kind of affective, bodily relatedness. Understanding people is never detached, in the sense that observation of a rock might be. I also offer a re-interpretation of 'simulation', according to which it is not ordinarily a matter of A simulating B but of simulated interaction between A and B.

Chapter 7 addresses the assumption that the 'folk' are committed to two principal categories of mental state, belief and desire. I suggest that these terms are used to communicate a wide range of predicaments and that an intuitive appreciation of the differences between them is evident in everyday discourse. However, illustrations of how FP works, of the kind that are routinely offered by its proponents, tend to confuse these various states and lump them all together under the categories of 'belief' and 'desire'. I also show that the clear-cut distinction between belief-like and desire-like states, insisted on by FP, is not respected by everyday thought. Furthermore, many so-called 'beliefs' and 'desires' are not propositional attitudes and I offer examples of 'believing p', where p is not a proposition or series of propositions but is reliably understood by people all the same. Borrowing a term from Needham (1972), I conclude that 'belief' and 'desire' are 'peg words', very general terms used to refer to a wide range of different phenomena. The claim that they are understood by people to be distinctive kinds of internal states involves a misguided reification of abstractions.

Chapter 8 draws the argument of the preceding chapters together to suggest that FP is not, strictly speaking, *false*. It is, rather, an abstraction from social life that is misleading in various respects and has no psychological reality. At best, it is a convenient way of talking in certain areas of philosophy, which has become an entrenched and misguided philosophical institution. This final chapter concludes with a tentative diagnosis of the problem, suggesting that it stems largely from the prevalence of mechanistic naturalism. The mistake is not to postulate mechanisms but to assume that interpersonal understanding is itself

somehow like mechanistic understanding and thus to miscast it in mechanistic terms, as a matter of figuring out how internal states interact in reliable ways so as to cause behaviour. This amounts to a refusal to recognise the affective, self-engaging stance through which people are encountered *as people* in the context of a shared social world and, ultimately, to a somewhat pathological denial of the personal. I also suggest that, if we admit that the personal stance involves an 'openness to others' that is quite different in character from mechanistic thinking, there are insufficient grounds for insisting that a mechanistic stance will ultimately be able to explain what is accessible through a personal stance. There may be certain truths that are just not available to one who thinks only in terms of mechanism, including truths about people.

What I do not dispute here is the view that social life relies on an ability to predict behaviour and sometimes to explain it. There is a sense in which it is trivially true that interpersonal understanding involves prediction. Our various interactions with each other certainly do involve anticipating what people are going to do next. Otherwise, navigating a busy shopping street would be impossible. However, this sense of 'prediction' need not imply that I direct any cognitive resources at all towards a specific individual in order to predict what that individual will do on a given occasion. For example, if a sign says 'turn left', I will predict that B will turn left, given my prediction that everyone in a very large crowd of which B is a part will turn left. In such cases, I may well successfully co-ordinate my own behaviour with that of B while being utterly oblivious to B. Even if I do focus specifically upon B and make the explicit prediction that she will turn left, I do not need to consider any internal characteristics of B in order to predict what she will do. My prediction rests on there being a 'turn left' sign, coupled with the general assumption that people in everyday situations tend to follow signs. So predicting B, in the liberal sense of 'prediction', need not involve any cognitive effort directed at B and can instead rely on a range of indirect methods. I do not want to challenge such a permissive sense of 'prediction'. However, we might also understand 'predicting B' in a narrower sense, as involving cognitive effort focused specifically upon B's characteristics and behaviour, with the aim of anticipating what B will do. The questions of how frequently we do this in social life and of whether, where and how our doing so relies on FP ability will need to be addressed. To further complicate matters, there are many other cases of prediction that involve not just observing a situation but intervening in it in such a way as to make it more likely that a certain person or group of people will act in a particular way. So the ability to predict might in

some cases be inextricable from the ability to successfully manipulate behaviour. It is questionable whether prediction in cases of intervention and manipulation relies on the same skills as detached prediction.

Proponents of FP do not generally distinguish between different kinds of prediction. Thus it is difficult to assess how encompassing they claim the role of FP to be or what kinds of prediction it is supposed to enable. I do not directly challenge the claim that FP is involved in prediction, given that the claim is itself unclear. Rather, throughout the discussion I consider the various skills that we employ when understanding and interacting with people in different contexts to see whether and when FP might be employed, remaining sensitive to the different ways in which 'prediction', in the general sense of the term, might be accomplished.

The claim that FP plays a central role in explanation is clearer and easier to assess, as its proponents offer numerous and varied illustrations of how we explain people's activities by invoking FP. However, I take understanding, rather than explanation, as my primary focus, given that we only attempt to explain behaviour in certain cases. Understanding has a wider scope than explanation and it is important to look at all those instances where we understand and relate to people without attempting to explain what they do. Nevertheless, I do examine various examples of social explanation, in order to determine whether and how FP is involved, and the theme of explanation is particularly prominent in Chapter 7. That we sometimes explain people's behaviour is, of course, something I take for granted throughout. However, what I challenge is the assumption that explanations of why people do what they do can in most cases be fitted into the mould of FP.

In emphasising 'understanding', I use the term in a fairly permissive sense, to include the application of concepts, non-conceptual practical skills, patterns of reasoning and the ability to detect and respond to emotions and feelings. My aim is to explore what everyday interpersonal understanding involves. To assume an overly restrictive conception of understanding from the outset would be to prejudice the issue. I will discuss several different kinds of social understanding and will also consider how they relate to each other. In referring to understanding *and* experience, I do not wish to imply that experience involves no understanding. Experience, I will suggest, can incorporate practical responsiveness, affectivity and the application of concepts. However, not all social understanding is integral to experience. In addition to experiencing people and social situations, we also think about what we experience. We think about situations as we actively participate in

them. We also reflect upon aspects of social life and our various social experiences from a non-participant perspective. A further distinction needs to be drawn between everyday and scientific reflection upon interpersonal relations, as the latter may turn out to be quite different from the kind of reflection that people ordinarily engage in. Hence, in discussing both experience and understanding, I do not want to suggest that they are wholly distinct; some forms of understanding are integral to social experience and others are not.

Throughout the book, I draw heavily on phenomenological descriptions, offered by the likes of Husserl, Heidegger, Scheler, Gurwitsch, Schutz, Sartre and Merleau-Ponty. My intention is not to advocate the overall philosophical position of any particular phenomenologist but to draw selectively from each of them and employ their various insights to aid reflection upon the structure of social life. One reason I appeal to phenomenology is that the FP literature is surprisingly bereft of detailed descriptions of social experience, understanding and interaction. Instead, it tends simply to describe every social scenario in terms of believing and desiring, failing to entertain the possibility of an alternative. Phenomenologists, in contrast, have offered a diversity of intricate descriptions. These can help bring to light aspects of interpersonal understanding that might otherwise be ignored, thus opening up the possibility of alternatives to FP. I also discuss some scientific work, including recent findings in neuroscience that relate to the perception of agency. My aim in so doing is not primarily to speculate about which mechanisms underlie interpersonal understanding but to show that certain phenomenological claims that conflict with FP are not at odds with scientific results or somehow mysterious. Phenomenological and scientific enquiry can interact and complement each other in various ways and the empirical case for FP does consist of scientific results but of scientific results that have already been interpreted through the lens of FP.

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