CHAPTER SIX

Intentionality

The problem of intentionality is second only to the problem of consciousness as a supposedly difficult, perhaps impossibly difficult, problem in the philosophy of mind. Indeed, the problem of intentionality is something of a mirror image of the problem of consciousness. Just as it is supposed to be extremely difficult to fathom how mere bits of matter inside the skull could be conscious, or could through their interactions create consciousness, so it is difficult to imagine how mere bits of matter inside the skull could "refer to" or be about something in the world beyond themselves, or could through their interactions create such a reference. To take an example, I am now thinking that the sun is 93 million miles from the Earth. My thoughts definitely refer to, or are about, the sun. They are not about the moon, my car in the garage, my dog Gilbert, or my next-door neighbor. Now what is it about the thought that enables it to reach as far as the sun? Do I send mental rays all the way to the sun, just as the sun sends light rays all the way to the Earth? Unless there is some sort of

connection between me and the sun, it is hard to imagine how my thoughts could reach the sun. And what goes for the sun, goes for just about any object that I can represent in my beliefs, desires, and other intentional states. So for example, if I think that Caesar crossed the Rubicon, then my thought is about Caesar, and it has the content that he crossed the Rubicon. But now, what fact about the stuff inside my skull makes it refer all the way back in history to a specific individual, and a specific river, and ascribe the specific action of the individual crossing the river?

In addition to the problem of how such a thing is possible, there is a related problem about how I can be so confident that it is happening right. When I refer to Julius Caesar how can I be so smugly confident that my thoughts are actually hitting Julius Caesar and not, for example, Mark Anthony or Caesar Augustus or my dog Gilbert? If I throw a stone into the dark, I may not have the faintest idea what it is hitting, but when I throw my reference into the unseen I am often completely confident about what it is hitting.

To make matters even worse, it seems that I can sometimes think about objects that do not even exist. When I was a small child I believed that Santa Claus comes on Christmas Eve. Was my belief about Santa Claus? It certainly seems so, but how is that possible, since Santa Claus does not even exist?

Notice that these are questions that only a philosopher would ask. Philosophy begins with a sense of mystery and wonder at what any sane person regards as too obvious to worry about.

Notice also that we cannot explain the intentionality of the mind by saying it is just like the intentionality of language. In the case of language, the utterance "Caesar

crossed the Rubicon" is about Caesar and says of him that he crossed the Rubicon. I cannot say that a mental representation derives its intentional capacity from language, because of course the same problem arises for language. How is it possible that a mere sentence, sounds that come out of my mouth or marks that I write on paper, can refer to, be about, or describe objects and states of affairs that are 2,000 years in the past and 10,000 miles away? The intentionality of language has to be explained in terms of the intentionality of the mind and not conversely. For it is only in virtue of the fact that the mind has imposed intentionality on these sounds and marks that they refer to the objects and events that I have mentioned. The meaning of language is derived intentionality and it has to be derived from the original intentionality of the mind.

There are three problems about intentionality we need to address. First, how is intentionality possible at all; second, given that intentional states are possible, how is their content determined; and third, how does the whole system of intentionality work? Most of the philosophical literature is about the first two questions. I find the third question the most interesting. In this chapter I am going to first deal with the question about how intentionality is possible, and I will use my usual method of trying to demystify the whole phenomenon by bringing it down to earth. Then I will go to the third topic and describe the structure of intentionality; and I will include a section on the differences between intentionality-with-a-t and intensionality-with-an-s. Finally, I will conclude with the second question, how the contents of intentional states are determined. Readers familiar with cognitive science will recognize that when we talk about intentionality we are

discussing what in cognitive science is known as "information." I prefer "intentionality" because "information" is systematically ambiguous between a genuinely observer-independent mental sense (for example, by looking out the window now I have information about the weather) and a nonmental observer-relative sense (for example, the rings in the tree stump contain information about the age of the tree). This ambiguity can also arise for "intentionality," but it is easier to avoid and confusion is less likely.

I. HOW IS INTENTIONALITY POSSIBLE AT ALL?

This problem is supposed to be as difficult as the problem of consciousness, so the sorts of solutions that are supposed to solve it are much like the solutions proposed for the problem of consciousness.

The dualistic solution is to say that as there are two different realms, the mental and the physical, so the mental realm has its own sorts of powers not possessed by the physical realm. The physical realm is incapable of referring, but the mental realm is essentially capable of thinking, and thinking involves reference. I hope it is obvious that this dualistic solution is no solution at all. To explain the mystery of intentionality it appeals to the mystery of the mental in general.

I think that the most common contemporary philosophical solution to the problem of intentionality is some form of functionalism. The idea is that intentionality is to be analyzed entirely in terms of causal relations. These causal relations exist between the environment and the agent and between various events going on inside the agent. On this view there is nothing mysterious about intention-

ality. It is just a form of causation. The only special feature is that intentional relations exist between the agent's cerebral innards and the external world. And, by this time, I do not need to tell the reader that the most influential version of functionalism is computer functionalism, or Strong Artificial Intelligence.

Finally, there is the eliminativist view of intentionality: there really are no intentional states. The belief that there are such things is just a residue of a primitive folk psychology, one that a mature science of the brain will enable us to overcome. A variant of the eliminativist view is what we might call "interpretativism." The idea here is that attributions of intentionality are always forms of interpretation made by some outside observer. An extreme version of this view is Daniel Dennett's conception that we sometimes adopt the "intentional stance" and that we should not think of people as literally having beliefs and desires, but rather that this is a useful stance to adopt about them for the purpose of predicting their behavior.[1]

I will not spend much time criticizing these various accounts of intentionality because I have already criticized the general thrusts of these arguments in earlier chapters. What I want to do, as I did with the problem of consciousness, is bring the whole issue down to earth. If you ask, how is it possible that anything as ethereal and abstract as a thought process can reach out to the sun, to the moon, to Caesar, and to the Rubicon, it must seem like a very difficult problem. But if you pose the problem in a much simpler form, how can an animal be hungry or thirsty? How can an animal see anything or fear anything? Then it seems much easier to fathom. We are speaking, as we did about consciousness, of a certain set of biological capacities of the

mind. And it is best to start with the biological capacities that are primitive—for instance, hunger, thirst, the sex drive, perception, and intentional action. In the last chapter I described some of the neurobiological details about how brain processes cause conscious feelings of thirst. But in explaining how brain processes can cause feelings of thirst, we have already explained how brain processes can cause forms of intentionality, because thirst is an intentional phenomenon. To be thirsty is to have a desire to drink. When the angiotensin 2 gets inside the hypothalamus and triggers the neuronal activity that eventually results in the feeling of thirst it has *eo ipso* resulted in an intentional feeling. The basic forms of consciousness and intentionality are caused by the behavior of neurons and are realized in the brain system, that is itself composed of neurons. What goes for thirst goes for hunger and fear and perception and desire and all the rest.

Once we demystify the problem of intentionality by removing it from the abstract, spiritual level down to the concrete level of real animal biology, I do not believe that any unsolvable mystery remains about how it is possible for animals to have intentional states. If you start with such simple and obvious cases as hunger and thirst, intentionality is not at all difficult to explain. Of course, beliefs, desires, and sophisticated forms of thought processes are more complex and more removed from the immediate stimulation of the brain by the impact of the environment than are perceptions or feelings of hunger and thirst. But even they are caused by brain processes and realized in the brain system.

When it seems mysterious to us that intentional relations can exist at all, when we pose such questions as,

How is it possible for my thoughts to reach all the way to the sun or as far back in history as Julius Caesar? it is because we are imposing the wrong model of relations on the sentences that describe our intentional contents. Similarly, when we are puzzled about how we can have thoughts about things that do not exist at all, such as Santa Claus, it is because we are thinking of intentionality as if it were a relation like standing next to or hitting or sitting on top of. You cannot hit something that does not exist and you cannot sit on something that is 93 million miles away. But referring to or thinking about something is not at all like sitting on it or hitting it. It is rather a form of *representation* and the notion of representation does not require that the thing represented actually exist or that it exist in some immediate proximity to the representation of it. We ought to hear the question, How is it possible to think about Santa Claus if Santa Claus does not even exist? as like the question, How is it possible to make up a story about Santa Claus if Santa Claus does not even exist? There we have an easier problem because we see that it does not seem metaphysically difficult to make up fictional stories. When I say this I am not, of course, solving the problem because, strictly speaking, the intentionality of the story derives from the intentionality of the mental content. I am trying to remove a sense of mystery by showing how the apparently mysterious is like the obviously unmysterious. Our ability to have intentional contents about the nonexistent seems mysterious, but our ability to construct fictional stories seems much less mysterious.

However, there are a lot of other problems. For example, what is the relation between conscious and unconscious intentionality and how do intentional states

get the content they have? I will have to work my way up to the point where I can answer these questions. At this point, it seems to me the best thing I can do is describe the formal structure of intentional states, because we will not get a grasp on how intentionality functions, until we see the structural features of intentional states, such as beliefs and desires, hopes and fears, perceptions, memories, and intentions.

II. THE STRUCTURE OF INTENTIONALITY

1. Propositional Content and Psychological Mode

Because intentional states are capable of referring to objects and states of affairs in the world beyond themselves, they must have some sort of *content* that determines this reference, and indeed we need to distinguish the content of the state from the type of state that it is. Thus I can believe that it will rain, hope that it will rain, fear that it will rain, or desire that it will rain. In each case there is the same content, that it will rain, but that content relates to the world in different psychological modes: belief, fear, hope, desire, etc. This distinction, by the way, exactly parallels the same distinction in language. Just as I can order you to leave the room, so I can predict that you will leave the room, and I can ask whether you will leave the room. In each case we have the same content, that you will leave the room, but it is presented in different sorts of speech acts. A good way to think of this is to think of the state as consisting in a psychological mode, such as belief or desire, with a propositional content, such as the proposition that it is raining. We can represent this as S(p), where the S stand for the mode or type of state and the