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0521574366 - What Minds Can Do: Intentionality in a Non-Intentional World

Pierre Jacob

Excerpt

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## *Introduction*

This book is about semanticity or intentionality – about how semanticity or intentionality fit in a non-semantic, non-intentional world. Intentionality is one important feature of minds – of human minds, if not of other minds. It is what allows some of a human being's states of mind – the so-called “propositional attitudes” (such as beliefs and desires) – to be about (or represent) non-mental and mental things and states of affairs, some actual, some possible, and some impossible. In other words, having intentionality or being representations, an individual's states of mind have semantic properties. In particular, an individual's beliefs have truth-conditions: they can be true and they can be false (as the case may be). In contemporary philosophy, there are two broad approaches to intentionality: there is so to speak a top-down approach and there is a bottom-up approach.

What I call the top-down approach is embodied in the work of Davidson. The project is to characterize intentionality by starting with creatures – human beings – exhibiting systems of full-fledged propositional attitudes, possessing both the ability to speak a natural language and the further ability to attribute propositional attitudes to other creatures. From this top-down point of view, what is striking about an individual's full-fledged propositional attitudes is their holistic character. As Davidson (1982: 473) puts it, “one belief demands many beliefs, and beliefs demand other basic attitudes such as intentions, desires and . . . the gift of tongues.” The top-down approach culminates in a “transcendental” argument for the view that “a creature cannot have thoughts unless it is an interpreter of the speech of another”; a creature cannot have beliefs unless it possesses both a language and the concept of belief (Davidson 1975: 157, 170). The reason why this argument is really fascinating is that, if correct, then it would justify a very strong form of anti-individualism: no creature could have thoughts unless it were a member of a social community.

Cambridge University Press

0521574366 - What Minds Can Do: Intentionality in a Non-Intentional World

Pierre Jacob

Excerpt

[More information](#)*Introduction*

The bottom-up approach, by contrast, starts with more modest creatures to which common sense and cognitive scientists are prone to attribute representational states or cognitive maps. Although bacteria, frogs, cats and dogs can neither speak a human natural language nor presumably attribute mental states to other creatures, still they can enter states having rudimentary intentionality, i.e., inner states representing aspects of their environment. Presumably, they can build maps of aspects of their environment even though they do not possess any concept of a map. Naturalistically minded philosophers (such as Dretske, Fodor, Millikan, and Papineau) are prone to emphasize the continuities between simpler physical and biological systems and creatures having full-blown sets of propositional attitudes, mastery of a human language and the ability to ascribe mental states to others. The bottom-up approach, as illustrated by naturalistically inclined philosophers, assumes that, if we want to understand some of the puzzling features of intentionality (such as the possibility of error or the capacity for misrepresentation), then our best bet is to start with the simplest, purest cases devoid of all the complexities and subtleties of the full-blown systems of propositional attitudes. On their view, we should not let our attention be diverted immediately by the achievements of the higher flights of human cognition. So we should first consider bacteria, frogs, cats, and dogs precisely because the ability to speak a human language and to ascribe mental states to others is far beyond them.

One can, I think, grant the advocate of the top-down approach that (to borrow a famous example from Malcolm) when a dog chases a cat, the dog's representation (correct or incorrect) of the cat's being up an oak tree differs from my belief that a cat went up an oak tree. For one thing, I have several different though related true beliefs about cats and about oak trees – such as that cats are feline mammals covered with fur and with paws on their feet; that oak trees have roots, branches and twigs and shed their leaves in autumn, and so on. I also no doubt have many false beliefs. Not only can humans have false beliefs, they can even have religious and/or superstitious beliefs about cats and trees whose “cognitive significance” would have been held dubious by logical positivists. Presumably, dogs do not have any such beliefs either about oak trees or about cats. Nor do I know how states of a dog's nervous system represent either cats or oak trees. Interesting differences between a genuine human belief that a substance is

Cambridge University Press

0521574366 - What Minds Can Do: Intentionality in a Non-Intentional World

Pierre Jacob

Excerpt

[More information](#)*Introduction*

poisonous and a rat's disposition to avoid foodstuff which is poisonous have been thus described by Evans (1981: 131):

The rat manifests the "belief" in only one way – by not eating – whereas there is no limit to the ways in which the ordinary belief that something is poisonous might be manifested. The subject might manifest it by, e.g., preventing someone else from eating the food, or by giving it to a hated enemy, or by committing suicide with it. These variations stem from the different projects with which the belief may interact, but similar variations arise from combining the belief with other beliefs. It might, for example, lead to a subject's consuming a small amount of food every day, when combined with the belief that the consumption of small doses of a poison renders one immune to its effects . . . It is of the essence of a belief state that it be at the service of many distinct projects, and that its influence on any project be mediated by other beliefs.

No doubt, the rat's disposition will serve fewer purposes than a human belief. From the fact, however, that they are less multipurpose or more single-purpose than human beliefs, it does not follow that either the state in the dog's nervous system or the rat's avoidance disposition lack aboutness, intentionality or semantic properties. Unlike humans, dogs cannot have religious beliefs about cats or about trees. Like human beliefs, however, the state in the nervous system of Malcolm's dog can be mistaken: it can, for example, misrepresent the location of the cat as being in the oak tree, when the cat is in fact in the neighboring maple tree. The fact that Malcolm's dog does not have the concept of belief, let alone the concept of truth, does not preclude him from misrepresenting features of his environment.

As Dennett (1983b: 69) – himself an advocate of the top-down approach – once wrote in an ecumenical tone of voice and in a slightly different context, "if you compare this [contrast between the two approaches] with the analogy of building a trans-continental railroad, you do start at both ends, and plan to meet somewhere in the middle." I do not know where the middle lies between the two approaches. Even though I endorse the bottom-up strategy of trying to find a naturalistic basis for intentionality and even though I am not convinced by the claim that a creature cannot have thoughts unless it has the concept of thought or belief, I do think that there is an important insight in the top-down approach favored by Davidson. Put in non-Davidsonian terms, the insight is that, underlying systems of full-

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Pierre Jacob

Excerpt

[More information](#)*Introduction*

blown human propositional attitudes, are two distinctively human cognitive capacities: the capacity for acquiring a human language and the capacity for forming beliefs about beliefs, beliefs about desires, desires about beliefs, desires about desires, in a word, the capacity for ascribing propositional attitudes to others. The idea, then, is that the arrival of brain structures with both linguistic and (as I will call them) “meta-representational” capacities (i.e., the ability to form propositional attitudes about propositional attitudes) must have been a turning point in the phylogenetic evolution of biological systems capable of entering states with intentionality (or semantic properties).

If one is a physicalist (as I am), then two questions arise: first, how can states of physical systems – bits of brain cells – have intentionality? Which of a system’s non-semantic properties allow it to have semantic properties? Secondly, what aspect of a system’s behavior can be explained by its possession of intentionality? What can the causal role of a system’s semantic properties be? Because it deals with the above two complementary questions, the present book has two parts. The first part (chapters 1 to 4) examines the question whether the semantic properties of an individual’s propositional attitudes can be derived from non-semantic properties and relations of the individual’s mind. This is often called in contemporary philosophy of mind the task of naturalizing intentionality. The second part (chapters 5 to 8) tries to answer the question: can a physicalist recognize a role to the semantic properties of an individual’s propositional attitudes in the causal explanation of the individual’s intentional behavior? In Dennett’s terminology, can an individual’s propositional attitudes be “semantic engines”? If not, then a physicalist will be committed to the epiphenomenalism of intentionality – or of the semantic properties of an individual’s propositional attitudes. This is the problem of mental causation.

In chapter 1, I characterize a position which I call intentional realism and acceptance of which, I argue, commits one to the twofold program of naturalizing intentionality and of showing that intentionality can be causally efficacious. In chapters 2–4, I argue for an informationally based teleosemantic approach to the task of deriving the semantic properties of an individual’s propositional attitudes from non-semantic properties and relations of his or her mind. This approach assumes that information is a crucial ingredient of semanticity. Chapter 2 presents the leading ideas of informational semantics. In

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Pierre Jacob

Excerpt

[More information](#)*Introduction*

chapters 3 and 4, assuming the standpoint of informational semantics, I discuss three features of the semantic properties of an individual's propositional attitudes which ought to be accounted for by an informational approach to intentionality: the insensitivity of belief contents to their informational origins; the problem of intensionality (or referential opacity) and the problem of misrepresentation. I further distinguish two problems often confused in the literature: the problem of imperfect correlation and the problem of the transitivity of nomic dependencies. In chapter 4, I argue for a teleosemantic approach to the latter of the two problems, which, like Dretske's recent views, and unlike Millikan's purely teleosemantic approach, has an informational basis.

Chapter 5 discusses the "computational representational theory of mind" based on the language of thought hypothesis whose main advocate over the last twenty years has been Fodor. The language of thought hypothesis has two purposes: on the one hand, it is designed to solve the problem of compositionality of the semantic properties of an individual's propositional attitudes. On the other hand, it is designed to solve the problem of mental causation: mental symbols are supposed to have both semantic and syntactic properties. Syntactic properties, not semantic properties of mental symbols are expected to be causally efficacious. After examining conceptual issues raised by the language of thought hypothesis, I argue that it does not justify the thesis that the semantic properties of an individual's propositional attitudes are causally efficacious. In chapter 6, I argue that – contrary to recent claims of Fodor's – the alternative between semantic atomism and semantic holism is not exclusive and that consequently an intentional realist is not bound to accept semantic atomism. In chapters 7 and 8, I distinguish two reasons why the semantic properties of an individual's propositional attitudes might lack causal efficacy. I therefore distinguish two epiphenomenalist threats: the threat of preemption and the threat of externalism. The former – with which I deal in chapter 7 – arises because the semantic properties of an individual's propositional attitudes might be preempted by more basic physical (chemical or biological) properties of the individual's brain. The latter – with which I deal in chapter 8 – arises from the fact that the semantic properties of an individual's propositional attitudes are not local properties of the individual's brain. Dretske has, I think, recently provided the ingredients of a response to the threat of externalism – and

Cambridge University Press

0521574366 - What Minds Can Do: Intentionality in a Non-Intentional World

Pierre Jacob

Excerpt

[More information](#)*Introduction*

has therefore sketched a justification of the thesis that the semantic properties of an individual's propositional attitudes are causally efficacious – that an individual's propositional attitudes are semantic engines. In chapter 8, however, I explain why I disagree with his sharp dichotomy between the role of the semantic properties of ontogenetically formed representations and the role of the semantic properties of phylogenetically formed representations. Finally, in chapter 9, I reflect on the differences between my mixed informational and teleo-semantic account of semanticity and Fodor's pure informational account. The former, unlike the latter, I argue, does not sever the link between semantics and psychology.

Cambridge University Press

0521574366 - What Minds Can Do: Intentionality in a Non-Intentional World

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Excerpt

[More information](#)

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*Part I: The naturalization of  
intentionality*

Cambridge University Press

0521574366 - What Minds Can Do: Intentionality in a Non-Intentional World

Pierre Jacob

Excerpt

[More information](#)

## 1

*What is intentional realism?*

## I. I INTRODUCTION

In this chapter, I would like to examine a realist view of the mind which I shall call *intentional realism*. At the heart of the version of intentional realism which I will discuss is Representationalism, i.e., the claim that the mind is primarily a representational system or that an individual's mind is a system whose job it is to deliver (or manufacture) representations of the environment for the benefit of the individual whose mind it is. Now, when we introspectively reflect upon our own human minds, we quickly discover that they are inhabited by two quite distinct sorts of states: propositional attitudes and experiences. Propositional attitudes, e.g., beliefs and desires, have what Brentano, reviving a medieval Scholastic word, called "intentionality." Conscious experiences, sensations or *qualia* are paradigmatic states about which it makes sense to ask Tom Nagel's (1974) celebrated question: what is it like to have them, to enjoy them or to be in them? *Qualia* are so-called because there is a subjective, seemingly intrinsic, *quality* characteristic of states such as smelling a perfume, hearing the sound of a cello, seeing a red rose, or tasting a strawberry.<sup>1</sup> This quality can only be experienced from a first person point of view or perspective. The representational claim seems true of propositional attitudes, not so obviously true of experiences.

In fact, there is a weak (almost analytic) reading of Representationalism: this is the claim that many of a mind's states – the so-called propositional attitudes – can be thought of as mental representations of (non-mental) states of affairs. There is a stronger reading of Representationalism which is the claim that understanding the

<sup>1</sup> For one of the clearest formulations of the view that experiential properties and intentionality raise two separate problems, see Field (1978). The latter is what he calls Brentano's problem.

Cambridge University Press

0521574366 - What Minds Can Do: Intentionality in a Non-Intentional World

Pierre Jacob

Excerpt

[More information](#)*The naturalization of intentionality*

representational (or semantic) properties of propositional attitudes can take us some way towards understanding aspects of conscious experiences. One of the challenges, therefore, faced by Representationalism is precisely to show that a theory of the semantic properties of propositional attitudes can throw light onto conscious experiences as well. This will be a topic for the next chapter.

Propositional attitudes are beliefs, intentions, desires, guesses, fears, hopes, etc. Philosophers call such states propositional attitudes on the linguistic ground that human beings ascribe them to one another by means of the utterance of a complex sentence containing a main verb expressing the person's attitude towards the propositional content expressed by (referred to or denoted by) the "that"-clause embedded under the main verb as in (1):

(1) Anna thinks that Mars is one of the planets of the Solar system.

In (1) the verb "think" expresses Anna's attitude towards the proposition expressed by the sentence "Mars is one of the planets of the Solar system." An individual's propositional attitudes are internal states of the individual.<sup>2</sup> To say that a person's beliefs are states internal to him or her is to say that somebody else cannot directly observe them. You can figure out some of my beliefs by listening to what I say or by attending to what I do. But you cannot experience my beliefs: you cannot see them, touch them, smell them, or hear them. Neither can I for that matter. I am, however, directly aware of the contents of some of my own beliefs to which I have special introspective access; sometimes at least, I do not need to attend to what I do or listen to what I say to determine what I think.<sup>3</sup>

Whether or not "there is something it is like" to have them, the primary feature of propositional attitudes is that they are mental states

<sup>2</sup> To say that an individual's propositional attitudes are *internal* states of the individual is not to espouse an internalist (or anti-externalist) view of the contents (or semantic properties) of the individual's propositional attitudes. The controversy between internalism and externalism is about the semantic properties of an individual's propositional attitudes. To borrow an example from Davidson (1987), an individual's skin may have the property of being sun-burnt. The skin is part of the individual. The individual's skin, however, can only be sun-burnt if it stood in some causal relation to the sun, as opposed to some other source of energy.

<sup>3</sup> At least, this is true of my conscious beliefs. I am not directly aware of my unconscious beliefs.

Cambridge University Press

0521574366 - What Minds Can Do: Intentionality in a Non-Intentional World

Pierre Jacob

Excerpt

[More information](#)*What is intentional realism?*

with propositional content. As I said, they have the cluster of properties which Brentano called intentionality. They are *about* things and states of affairs, some real, some possible, some impossible. I may, for example, wish I were someone else or I may wish to ride a unicorn. These, I take it, are desires about impossible states of affairs. Beliefs too can be about impossible states of affairs: I may believe for instance that the greatest integer is a prime number. Some beliefs about actual, real existing things are true. Others are false: a false belief may wrongly ascribe to some actual thing a property which the thing does not have. Unlike a false belief about a possible though unrealized state of affairs, a belief about an impossible state of affairs might be said to be neither true nor false: it might lack a truth-value. Arguably, for the belief that *a* is *F* to be truth-evaluable, the presupposition that *a* exists must be satisfied. If it is not, then the belief that *a* is *F* is not truth-evaluable. This suggests that our beliefs may be mistaken in two ways.<sup>4</sup> What makes the representational thesis plausible – in fact almost trivial – in the case of beliefs is that they are representational states: they can represent states other than themselves, some non-mental, some mental. Beliefs can represent non-mental states of affairs such as the fact that Mars (which I take to be a non-mental entity) has the property of being one of the planets of the Solar system (which I take to be a non-mental property or relation). They can also represent mental states of affairs such as when Anna thinks that all her beliefs about Mars are true. I shall say that propositional attitudes have *semantic* properties.

In the present chapter, I am going to argue for the view I call intentional realism. In the last section, however, I will present a puzzle for intentional realism – a puzzle which will only be solved in the penultimate chapter of this book. The puzzle consists in trying to reconcile a thesis I call “the strong causal thesis” with two other plausible doctrines: an externalist view of the individuation of the semantic properties of an individual’s propositional attitudes and the assumption that causal processes are local processes.

## 1.2 INTENTIONAL REALISM AND INTENTIONAL IRREALISM

As illustrated above, semantic properties are puzzling in a number of respects, some of them ontological (or metaphysical), others

<sup>4</sup> For more on the problems of misrepresentation, see chapters 3 and 4.