

Rational Animals

by Donald Davidson*

Summary

Neither an infant one week old nor a snail is a rational creature. If the infant survives long enough, he will probably become rational, while this is not true of the snail. If we like, we may say of the infant from the start that he is a rational creature because he will probably become rational if he survives, or because he belongs to a species with this capacity. Whichever way we talk, there remains the difference, with respect to rationality, between the infant and the snail on one hand, and the normal adult person on the other; this difference is discussed here.

The difference consists, it is argued, in the having of propositional attitudes such as belief, desire, intention and shame. This raises the question how to tell when a creature has propositional attitudes; snails, we may agree, do not, but how about dogs or chimpanzees? The question is not empirical; the question is what sort of empirical evidence is relevant to deciding when a creature has propositional attitudes.

It is next contended that language is a necessary concomitant of any of the propositional attitudes. This idea is not new, but there seem to be few arguments in its favor in the literature; one is attempted here.

Crucial to the considerations advanced is the idea that belief depends on having the concept of objective truth, and that this comes only with language.

Résumé

Ni un bébé d'une semaine, ni un serpent ne sont des créatures rationnelles. Si le bébé survit assez longtemps, il deviendra probablement rationnel, mais ce n'est pas vrai pour le serpent. Si l'on veut, on peut dire d'emblée du bébé qu'il est une créature rationnelle parce qu'il le deviendra s'il survit ou parce qu'il appartient à une espèce qui possède cette faculté. Quoi qu'on dise, la différence subsiste, en ce qui concerne la rationalité, entre le bébé et le serpent d'une part, la personne adulte normale de l'autre, et c'est cette différence qui sera discutée ici.

La différence consiste, selon l'auteur, en une capacité d'avoir des attitudes propositionnelles telles que la croyance, le désir, l'intention et la honte. Ceci pose la question de savoir quand on peut dire qu'une créature a des attitudes propositionnelles; on peut se mettre d'accord sur le fait que les serpents n'en ont pas, mais qu'en est-il des chiens et des chimpanzés? La question n'est pas empirique, elle est de savoir quelle donnée empirique va décider si oui ou non une créature a des attitudes propositionnelles.

L'auteur prétend que les attitudes propositionnelles s'accompagnent nécessairement du langage. Cette idée n'est pas nouvelle, mais il semble qu'il y a peu d'arguments qui la soutiennent dans la littérature. On en trouvera un ici, où l'on montre qu'un élément crucial de la croyance dépend de l'acquisition du concept de vérité objective, qui ne se développe qu'avec le langage.

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Zusammenfassung

Weder ein eine Woche altes Kind noch eine Schlange sind rationale Wesen. Wenn das Kind lange genug überlebt, wird es sich wahrscheinlich zu einem vernünftigen Wesen entwickeln, während das für die Schlange nicht zutrifft. Wenn wir wollen, können wir vom Kind sagen, dass es von Anfang an ein rationales Wesen ist, weil es im Falle des Überlebens vernünftig werden wird oder weil es zu einer Spezies mit dieser Fähigkeit gehört. Wie auch immer wir das ausdrücken, bleibt bezüglich der Rationalität der Unterschied zwischen dem Kind und der Schlange einerseits und der erwachsenen Person andererseits zurück. Dieser Unterschied wird hier diskutiert.

Es wird argumentiert, dass der Unterschied in der Fähigkeit besteht, psychologische Haltungen («propositional attitudes») wie Glauben, Begierden, Absichten und Scham zu haben. Damit erhebt sich die Frage, wie man entscheiden kann, wann ein Wesen solche Einstellungen hat; Schlangen, wird man zugeben, haben keine; wie steht es aber mit Hunden oder Schimpansen? Die Frage ist keine empirische, sondern betrifft die Frage, welche Art von empirischen Belegen für den Entscheid relevant ist, ob ein Wesen derartige Einstellungen hat.

Es wird die These aufgestellt, dass Sprachen ein notwendiger Begleitumstand einer jeglichen propositionalen Haltung ist. Der Gedanke ist zwar nicht neu, aber es finden sich wenige Argumente zu seiner Stützung in der Literatur; eines wird hier ausgeführt.

Entscheidend für die vorgelegten Betrachtungen ist die Auffassung, wonach Glaube vom Begriff der objektiven Wahrheit abhängt, und dieser kommt erst mit der Sprache.

Some animals think and reason; they consider, test, reject and accept hypotheses; they act on reasons, sometimes after deliberating, imagining consequences and weighing probabilities; they have desires, hopes and hates, often for good reasons. They also make errors in calculation, act against their own best judgment, or accept doctrines on inadequate evidence. Any one of these accomplishments, activities, actions or errors is enough to show that such an animal is a rational animal, for to be a rational animal is just to have propositional attitudes, no matter how confused, contradictory, absurd, unjustified or erroneous those attitudes may be. This, I propose, is the answer.

The question is: what animals are rational? Of course I do not intend to name names, even names of species or other groups. I shall not try to decide whether dolphins, apes, human embryos or politicians are rational, or even whether all that prevents computers from being rational is their genesis. My question is what makes an animal (or anything else, if one wants) rational.

The propositional attitudes provide an interesting criterion of rationality because they come only as a matched set. It may sound trivial to say that a rich pattern of beliefs, desires and intentions suffices for rationality; and it may seem far too stringent to make this a necessary condition. But in fact the stringency lies in the nature of the propositional attitudes, since to have one is to have a full complement. One belief demands many beliefs, and beliefs demand other basic attitudes such as intentions, desires, and if I am right, the gift of tongues. This does not mean that there are not borderline cases. Nevertheless, the intrinsically holistic character of the propositional attitudes makes the distinction between having any and having none dramatic.

To make the distinction so strong, and to make it depend on language, invites an accusation of anthropocentrism. The complaint is just, but it ought not to be leveled against me. I merely describe a feature of certain concepts. And after all, it is not surprising that our human language is rich in resources for distinguishing men and women from other creatures, just as Eskimos are said to have a vocabulary convenient for picking out varieties of snow. We connive with our language to make it, and us, seem special.

I promised not to discuss the question whether particular species are rational, but it will be impossible to avoid the appearance of talking of the feats and abilities of beasts because so much discussion of the nature of thought has by tradition centered on the mental powers of non-human animals. I consider this approach as just a colorful (and sometimes emotionally laden) way of thinking about the nature of thought¹.

Norman Malcolm tells this story, which is intended to show that dogs think:

Suppose our dog is chasing the neighbor's cat. The latter runs full tilt toward the oak tree, but suddenly swerves at the last moment and disappears up a nearby maple. The dog doesn't see this maneuver and on arriving at the oak tree he rears up on his hind feet, paws at the trunk as if trying to scale it, and barks excitedly into the branches above. We who observe this whole episode from a window say, 'He thinks that the cat went up that oak tree'².

(Malcolm added, we would say the dog was barking up the wrong tree.)

Malcolm claims that under the circumstances someone who attributed that belief to the dog might well — almost surely would — be right; he would have exactly the sort of evidence needed to justify such an attribution.

Let me give a preliminary argument designed to put Malcolm's claim in doubt. It's clear that the evidence for the dog's 'belief' depends on taking belief as a determinant of action and emotional response. We are asked to infer from what we see that the dog wants to catch the cat, that he runs where he does because of this desire and a belief about where the cat has gone, and that he is venting his frustration at not being able to follow the cat up the tree by barking, pawing the ground, and so forth. The details do not need to be

¹ I have often given talks based on ideas in this paper under the title 'Why Animals Can't Think'. The title was tendentious, since what I argued for (as here) was that only creatures with a language can think. I happen to believe, however, that men and women are alone in having language, or enough language to justify attributing thoughts to them. On the moral issue how we should treat dumb creatures, I see no reason to be less kind to those without thoughts or language than to those with; on the contrary.

² Norman Malcolm, 'Thoughtless Brutes', *Proceedings and Addresses of The American Philosophical Association*, 46 (1972-73), p. 13.

right, of course. The point is so far obvious: if we are justified in inferring beliefs, we are also justified in inferring intentions and desires (and perhaps much more).

But how about the dog's supposed belief that the cat went up that oak tree? That oak tree, as it happens, is the oldest tree in sight. Does the dog think that the cat went up the oldest tree in sight? Or that the cat went up the same tree it went up the last time the dog chased it? It is hard to make sense of the questions. But then it does not seem possible to distinguish between quite different things the dog might be said to believe.

One way of telling that we are attributing a propositional attitude is by noting that the sentences we use to do the attributing may change from true to false if, in the words that pick out the object of the attitude, we substitute for some referring expression another expression that refers to the same thing. The belief that the cat went up that oak tree is not the same belief as the belief that the cat went up the oldest tree in sight. If we use words like 'believe', 'think', 'intend' while dropping the feature of semantic opacity, we are not using those words to attribute propositional attitudes. For it has long been recognized that semantic opacity distinguishes talk about propositional attitudes from talk of other things.

Someone may suggest that the position occupied by the expression 'that oak tree' in the sentence 'The dog thinks the cat went up that oak tree' is, in Quine's terminology, transparent. The right way to put the dog's belief (the suggestion continues) is 'The dog thinks, with respect to that oak tree, that the cat went up it' or 'That oak tree is the one the dog thinks the cat went up'. But such constructions, while they may relieve the attributer of the need to produce a description of the object that the believer would accept, nevertheless imply that there is some such description; the *de re* description picks out an object the believer could somehow pick out. In a popular if misleading idiom, the dog must believe, under some description of the tree, that the cat went up that tree. But what kind of description would suit the dog? For example, can the dog believe of an object that it is a tree? This would seem impossible unless we suppose the dog has many general beliefs about trees: that they are growing things, that they need soil and water, that they have leaves or needles, that they burn. There is no fixed list of things someone with the concept of a tree must believe, but without many general beliefs, there would be no reason to identify a belief as a belief about a tree, much less an oak tree. Similar considerations apply to the dog's supposed thinking about the cat.

We identify thoughts, distinguish between them, describe them for what they are, only as they can be located within a dense network of related beliefs.

If we really can intelligibly ascribe single beliefs to a dog, we must be able to imagine how we would decide whether the dog has many other beliefs of the kind necessary for making sense of the first. It seems to me that no matter where we start, we very soon come to beliefs such that we have no idea at all how to tell whether a dog has them, and yet such that without them, our confident first attribution looks shaky.

Not only does each belief require a world of further beliefs to give it content and identity, but every other propositional attitude depends for its particularity on a similar world of beliefs. In order to believe the cat went up the oak tree I must have many true beliefs about cats and trees, this cat and this tree, the place, appearance and habits of cats and trees, and so on; but the same holds if I wonder whether the cat went up the oak tree, fear that it did, hope that it did, wish that it had, or intend to make it do so. Belief — indeed, true belief — plays a central role among the propositional attitudes. So let me speak of all the propositional attitudes as thoughts.

As remarked above, there may be no fixed list of beliefs on which any particular thought depends. Nevertheless, much true belief is necessary. Some beliefs of the sort required are general, but plausibly empirical, such as that cats can scratch or climb trees. Others are particular, such as that the cat seen running a moment ago is still in the neighborhood. Some are logical. Thoughts, like propositions, have logical relations. Since the identity of a thought cannot be divorced from its place in the logical network of other thoughts, it cannot be relocated in the network without becoming a different thought. Radical incoherence in belief is therefore impossible. To have a single propositional attitude is to have a largely correct logic, in the sense of having a pattern of beliefs that logically cohere. This is one reason why to have propositional attitudes is to be a rational creature. The point extends to intentional action. Intentional action is action that can be explained in terms of beliefs and desires whose propositional contents rationalize the action. Similarly, an emotion like being pleased that one has stopped smoking must be an emotion that is rational in the light of beliefs and values one has.

This is not to deny the existence of irrational beliefs, actions and emotions, needless to say. An action one has reasons to perform may be an action one has better reasons to avoid. A belief may be reasonable in the light of some but not the totality of one's other beliefs; and so on. The point is that the possibility of irrationality depends on a large degree of rationality. Irrationality is not mere lack of reason, but a disease or perturbation of reason.

I assume in this paper that an observer can under favorable circumstances tell what beliefs, desires and intentions an agent has. Indeed, I appealed to this assumption when I urged that if a creature cannot speak it is unclear that

intensionality can be maintained in the descriptions of his purported beliefs and other attitudes. Similarly I wondered whether, in the absence of speech, there could be grounds for attributing the general beliefs needed for making sense of any thought. Without defending the assumption that we can know other minds, let me distinguish this assumption from other stronger assumptions. Merely to claim that an observer can under favorable conditions tell what someone else is thinking is not to embrace verificationism, even with respect to thoughts. For the observability assumption does not imply that it is possible to state explicitly what evidence is necessary or sufficient to determine the presence of a particular thought; there is no suggestion that thinking can somehow be reduced to something else. Nor does the observability assumption imply that the only way to determine the existence of a thought is by observing. On the contrary, it is clear that people normally know without observation or evidence of any kind what they believe, want and intend.

Nor does the observability assumption amount to behaviourism. Propositional attitudes can be discovered by an observer who witnesses nothing but behavior without the attitudes being in any way reducible to behavior. There are conceptual ties between the attitudes and behavior which are sufficient, given enough information about actual and potential behavior, to allow correct inferences to the attitudes.

From what has been said about the dependence of beliefs on other beliefs, and of other propositional attitudes on beliefs, it is clear that a very complex pattern of behavior must be observed to justify the attribution of a single thought. Or, more accurately, there has to be good reason to believe there is such a complex pattern of behavior. And unless there is actually such a complex pattern of behavior, there is no thought.

I think there is such a pattern only if the agent has language. If this is right, then Malcolm was justified in attributing thought to his dog only if he believed, on good evidence, that his dog had language.

The view that thought — belief, desire, intention, and the like — requires language is controversial, but certainly not new. The version of the thesis which I want to promote needs to be distinguished from various related versions. I don't, for example, believe that thinking can be reduced to linguistic activity. I find no plausibility in the idea that thoughts can be nomologically identified with, or correlated with, phenomena characterized in physical or neurological terms. Nor do I see any reason to maintain that what we can't say we can't think. My thesis is not, then, that each thought depends for its existence on the existence of a sentence that expresses that thought. My thesis is rather that a creature cannot have a thought unless it has language. In order to be a thinking, rational creature, the creature must be able to express many

thoughts, and above all, be able to interpret the speech and thoughts of others.

As I remarked above, this has often been claimed; but on what grounds? Given the popularity of the idea, from the rationalists through the American pragmatists, and even among contemporary analytic philosophers, there is a remarkable dearth of arguments. So far, I have pointed to the dubious applicability of the intensionality test where dumb animals are concerned, and the requirement, if thought is to be present, that there be a rich supply of general (and true) beliefs. These considerations point in the direction of language, but they do not amount to a demonstration that language is necessary to thought. Indeed, what these considerations suggest is only that there probably can't be much thought without language.

Against the dependence of thought on language is the plain observation that we succeed in explaining and sometimes predicting, the behavior of languageless animals by attributing beliefs and desires and intentions to them. This method works for dogs and frogs much as it does for people. And, it may be added, we have no general and practical alternative framework for explaining animal behavior. Don't these facts amount to a *justification* of the application of the method?³

No doubt they do. But there could remain a clear sense in which it would be wrong to conclude that dumb (= incapable of interpreting or engaging in linguistic communication) animals have propositional attitudes. To see this it is only necessary to reflect that someone might easily have no better or alternative way of explaining the movements of a heat-seeking missile than to suppose the missile wanted to destroy an airplane and believed it could by moving in the way it was observed to move. This uninformed observer might be justified in attributing a desire and beliefs to the missile; but he would be wrong. I know better, for example, not because I know how the missile is designed, but because I know that it moves as it does because it was designed and built by people who had the very desire and beliefs my ignorant friend assigned to the missile. My explanation, while still teleological, and dependent on the existence of propositional attitudes, is a better explanation because it does not attribute to the missile the potentiality for the rich range of behavior that a thinking creature must have.

³ This is the position stressed by Jonathan Bennett, *Linguistic Behavior*, Cambridge University Press, 1976.

The case of a languageless creature differs from the case of the missile in two respects: many animals are far more like humans in the range of their behavior than missiles are; and we do not know that there is a better way to explain their behavior than to summon up propositional attitudes. What we need, then, in order to make a case, is a characterization of what it is that language supplies that is necessary for thought. For if there is such a necessary condition, we can continue to explain the behavior of speechless creatures by attributing propositional attitudes to them while at the same time recognizing that such creatures do not actually have propositional attitudes. We will be bound to acknowledge that we are applying a pattern of explanation that is far stronger than the observed behavior requires, and to which the observed behavior is not subtle enough to give point.

In the rest of this paper I state the condition for thought that I believe only language can supply, and I marshal considerations in favor of my view. Although I present these considerations as an argument, it will be clear that several steps in my reasoning can be challenged.

The 'argument' has two steps. I think I have shown that all the propositional attitudes require a background of beliefs, so I shall concentrate on conditions for belief. Without belief there are no other propositional attitudes, and so no rationality as I have characterized it.

First, I argue that in order to have a belief, it is necessary to have the concept of belief.

Secondly, I argue that in order to have the concept of belief one must have language.

Norman Malcolm, in the article mentioned before, makes a distinction similar to the one I want between having a belief and having the concept of a belief, but his terminology differs from mine. I have been using the word 'thought' to cover all the propositional attitudes. Malcolm, however, restricts the application of 'thought' to a higher level of thinking. In his view, the dog can believe the cat went up that oak tree, but it cannot have the thought that the cat has gone up that oak tree. The latter, but not the former, Malcolm holds, requires language. Malcolm makes the distinction by saying one merely thinks (believes) that p if one is aware that p , but one has the thought that p if one is aware that one is aware that p . This is close to the distinction I have in mind between believing that p and believing that one believes that p . The second is a belief about a belief, and so requires the concept of belief. To make a rough comparison: Malcolm holds that language draws a line between creatures that merely think and creatures that have the concept of a thought; I hold that in order to think one must have the concept of a thought, and so language is required in both cases.

Donald Weiss takes issue with Malcolm: Weiss thinks it is possible to make sensible attributions of awareness to speechless creatures.⁴ Since I think his example may strike a responsive chord in others, let me paraphrase and then quote him at some length:

Arthur is not a dog, but, let us say, a superdog from another planet. Arthur arrives on earth unaccompanied, and here he hatches. He has no commerce with, or knowledge of, other creatures — he is observed through one-way mirrors. He has no language. According to Weiss, we become convinced he has reflective intelligence when we witness this scene:

One day Arthur comes upon a shiny metal, puts it in the fire, tries to hammer it out — but discovers that it is apparently no more malleable than it was when cold. He tries again more slowly and more methodically — but again the same result. The regularity in which Arthur believed — we whisper among ourselves — is not entirely universal. Arthur has discovered an instance that does not conform to the general rule.

Arthur proceeds to walk agitatedly around his living space. He abruptly sits down; just as abruptly he gets up again; he paces forward and back. Once more he sits down, but this time he remains seated. Fifteen minutes pass without change of posture; Arthur's eyes are focused straight ahead. Then suddenly he leaps up and immediately proceeds to pile a large quantity of wood onto his fire . . . He then plunges his newly discovered metal into the fire, and, after a time, withdraws it. He again attempts to hammer it out — and this time he meets with success. Thus apparently satisfied . . . he proceeds in a leisurely manner to cook himself a meal.⁵

Weiss says we now have strong evidence Arthur has reflected upon his own beliefs; he is particularly impressed by the fact that Arthur in response to his state of befuddlement, sits wide-eyed and stock-still, and then veritably leaps to perform the acts that constitute the solution to his problem.⁶

I will ignore the question-begging vocabulary Weiss uses in describing Arthur's movements, for I think Weiss is barking up a right tree: it is essential that we be able to describe Arthur as being surprised. What I think is clear is that if he is surprised, he does have reflective thoughts, and, of course, beliefs.

⁴ Donald Weiss, 'Professor Malcolm on Animal Intelligence', *The Philosophical Review*, 84 (1975).

⁵ *Ibid.*, pp 91-92.

⁶ *Ibid.*

This is not to claim that all thinking is self-conscious, or that whenever we think that p we must be aware that p , or believe that we believe that p , or think that we think that p . My claim is rather this: in order to have any propositional attitude at all, it is necessary to have the concept of a belief, to have a belief about some belief. But what is required in order to have the concept of a belief? Here I turn for help to the phenomenon of surprise, since I think that surprise requires the concept of a belief.

Suppose I believe there is a coin in my pocket. I empty my pocket and find no coin. I am surprised. Clearly enough I could not be surprised (though I could be startled) if I did not have beliefs in the first place. And perhaps it is equally clear that having a belief, at least one of the sort I have taken for my example, entails the possibility of surprise. If I believe I have a coin in my pocket, something might happen that would change my mind. But surprise involves a further step. It is not enough that I first believe there is a coin in my pocket, and after emptying my pocket I no longer have this belief. Surprise requires that I be aware of a contrast between what I did believe and what I come to believe. Such awareness, however, is a belief about a belief: if I am surprised, then among other things I come to believe my original belief was false. I do not need to insist that every case of surprise involves a belief that a prior belief was false (though I am inclined to think so). What I do want to claim is that one cannot have a general stock of beliefs of the sort necessary for having any beliefs at all without being subject to surprises that involve beliefs about the correctness of one's own beliefs. Surprise about some things is a necessary and sufficient condition of thought in general. This concludes the first part of my 'argument'.

Much of the point of the concept of belief is that it is the concept of a state of an organism which can be true or false, correct or incorrect. To have the concept of belief is therefore to have the concept of objective truth. If I believe there is a coin in my pocket, I may be right or wrong; I'm right only if there is a coin in my pocket. If I am surprised to find there is no coin in my pocket, I come to believe that my former belief did not correspond with the state of my finances. I have the idea of an objective reality which is independent of my belief.

A creature may react with the world in complex ways without entertaining any propositions. It may discriminate among colors, tastes, sounds and shapes. It may 'learn', that is, change its behavior in ways that preserve its life or increase its food intake. It may 'generalize', in the sense of reacting to new stimuli as it has come to react to similar stimuli. Yet none of this, no matter how successful by my standards, shows that the creature commands the subjective-objective contrast, as required by belief.

What *would* show command of the subjective-objective contrast? Clearly linguistic communication suffices. To understand the speech of another, I must be able to think of the same things she does; I must share her world. I don't have to agree with her in all matters, but in order to disagree we must entertain the same proposition, with the same subject matter, and the same standard of truth. Communication depends, then, on each communicant having, and correctly thinking that the other has, the concept of a shared world, an *intersubjective world*. But the concept of an intersubjective world is the concept of an objective world, a world about which each communicant can have beliefs.

I claim, then, that the concept of intersubjective truth suffices as a basis for belief and hence for thoughts generally. And perhaps it is plausible enough that having the concept of intersubjective truth depends on communication in the full linguistic sense. To complete the 'argument', however, I need to show that the *only* way one could come to have the subjective-objective contrast is through having the concept of intersubjective truth. I confess I do not know how to show this. But neither do I have any idea how else one could arrive at the concept of an objective truth. In place of an argument for the first step, I offer this analogy.

If I were bolted to the earth I would have no way of determining the distance from me of many objects. I would only know they were on *some line* drawn from me toward them. I might interact successfully with objects, but I could have no way of giving content to the question where they were. Not being bolted down, I am free to triangulate. Our sense of objectivity is the consequence of another sort of triangulation, one that requires two creatures. Each interacts with an object, but what gives each the concept of the way things are objectively is the base line formed between the creatures by language. The fact that they share a concept of truth alone makes sense of the claim that they have beliefs, that they are able to assign objects a place in the public world.

The conclusion of these considerations is that rationality is a social trait. Only communicators have it.

