

## A PUZZLE ABOUT CONCEPT POSSESSION

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### *Summary*

To have a propositional attitude, a thinker must possess the concepts included in its content. Surprisingly, this rather trivial principle reflects badly on many theories of concept possession because, in its light, they seem to require too much. To solve this problem, I point out an ambiguity in attributions of the form ‘*S* possesses the concept of *F*s’. There is an undemanding sense which is involved in the given principle, whereas the theoretical claims concern a stronger sense which can be brought out by formulations such as ‘*S* has an adequate conception of *F*s’ or ‘*S* knows what *F*s are’.

### 1. *Introducing the Puzzle*

I shall present and try to solve a certain puzzle about concept possession. It is not only a challenge to several theories of concepts but already crops up in day-to-day life. Consider the following dialogue, which starts with Susan’s pointing at an algebra in a book on mathematical logic:

- Susan: Look at that algebra. Is it cylindric?  
Tom: Don’t ask *me*. I don’t know what a cylindric algebra is.  
Susan: But I’ve heard Michael telling you something about them.  
Tom: Frankly, I didn’t understand a word of his explanation. But wait! ... I remember him saying that this algebra *is* cylindric. And he’s an expert on such matters.  
Susan: So, it’s cylindric?!  
Tom: Yes, I believe it is because Michael said so.

There is a tension in what Tom asserts. In his first remark, he says that he does not know what a cylindric algebra is. This appears to be tan-

tamount to saying that he does not possess the concept of a cylindric algebra. But in his last remark, he claims to believe that the algebra in question is cylindric. That indicates that he possesses the concept of a cylindric algebra. After all, if he lacked that concept, how could he believe that a certain algebra is cylindric? How could he even grasp the thought that it is a cylindric algebra?

What has happened here? Is Tom's first assertion wrong? Does he have the concept of cylindric algebras right at the outset? Or is his last assertion wrong? Does he falsely assert to believe that the algebra is cylindric? Or is there a third possibility?

This dialogue illustrates a problem which is ubiquitous in the literature on concepts, whether philosophical, psychological or linguistic. In the next section, I first introduce the principle which is the common denominator in the following variants of the puzzle. It says that, to have a propositional attitude, a thinker must possess the concepts involved in its content. This rule throws a bad light on a variety of claims about concept possession, among them the well-known assumption that concept possession is a matter of having recognitional or inferential abilities. In section 3, I stress an ambiguity in attributions of the type '*S* possesses the concept of *F*s'. 'Susan possesses the concept of dogs' can either mean something relatively undemanding, namely, that she can think of dogs (as dogs); or it can mean that she has an adequate conception of dogs, or knows what dogs are. Section 4 is an attempt at solving the puzzle with the help of this ambiguity. In my view, it is the first sense which is involved in the principle that propositional attitudes require concept possession, whereas a claim like the one that concept possession requires recognitional or inferential abilities rests on the second sense. In the last section, I conclude with some open questions and problems.

Let me add two terminological remarks before I start. First, I confine my attention to *general*, or *predicative*, concepts, such as the concept of dogs, of water, cars, prime numbers, the concepts *red*, *square* and so on. I do not take into consideration *singular* concepts, such as the concept of the earth; and I leave aside *logical* concepts, such as the ones expressed by 'and', 'or' and 'every'. From now on, 'concept' always means *general concept*.

Second, I am concerned with ascriptions of the type '*S* possesses *the* concept of *F*s'. They differ in an important respect from attributions of the form '*S* possesses *a* concept of *F*s'. The latter can be interpreted

as ascribing nothing but possession of a concept with a certain extension, namely, the *F*s. According to this interpretation, Susan possesses a concept of dogs if she has a concept whose extension is the set of dogs. However, possessing a concept with that extension is not sufficient for having *the* concept of dogs. Attributions with the definite article are more fine-grained. Consider the following arguments:

*S* possesses a concept of *F*s.  
The set of *F*s is identical with the set of *G*s.  
Therefore, *S* possesses a concept of *G*s.

*S* possesses the concept of *F*s.  
The set of *F*s is identical with the set of *G*s.  
Therefore, *S* possesses the concept of *G*s.

There is a reading in which the first argument is valid. For example, if Quine is right, the set of creatures with a heart is identical with the set of creatures with a kidney. Hence, in some sense, if Susan possesses *a* concept of creatures with a heart, then she also has *a* concept of creatures with a kidney. The second argument, however, is clearly not valid. Susan can possess *the* concept of a creature with a heart without having the concept of creatures with a kidney. For to have the latter she needs the concept of a kidney, which is not required for possessing the concept of a creature with a heart. To put it a bit differently, attributions with the definite article provide an opaque context. Substituting the '*F*'-term in sentences of the form '*S* possesses the concept of *F*s' by a term with the same extension can lead to an ascription with a different truth-value.

## *2. The Conceptualisation Principle and Variants of the Puzzle*

The puzzle starts with a rather trivial observation. Whenever someone classifies an object as belonging to a certain category, she applies a concept. For example, when Susan judges that her neighbour's pet is a dog, she applies the concept of dogs to her neighbour's pet. If she lacked that concept, she would not be able to categorise the pet in this way. More generally, possession of concepts is a precondition of having propositional attitudes. In order to have a propositional attitude, a person must be able to grasp the thought which is its content; and the ability

to grasp a thought requires that one possesses the concepts involved in it. Put together, an attitude whose content contains a concept one does not possess is beyond one's reach:<sup>1</sup>

$S$  has an attitude with the content that  $x$  is  $F \rightarrow S$  possesses the concept of  $F$ s.

Let us call this the *conceptualisation principle*. It is also suggested by the views that concepts are constituents of such attitudes or parts of the mental representations to which a person stands in certain relations when she has such attitudes.<sup>2</sup>

The problem now is that the conceptualisation principle reflects badly on many theoretical claims concerning concept possession. For reasons of space, I cannot point to each and every account displaying a variant of the puzzle. But I hope the following remarks suffice to make it clear that the problem is quite far-reaching.

*Recognitional Abilities.* Many philosophers hold that having a concept, in at least a number of cases, means to have a recognitional ability. Thus, Mark Crimmins claims:

In the case of color properties, like being red, having the concept requires being able to recognize the property [...]. (Crimmins 1989, 287; cf. also Millar 1991, 501)

Applied to all predicative concepts, this would mean that Susan possesses the concept of dogs only if she is able to recognise (identify, classify) dogs as dogs. That idea is rather tempting because this seems to be what concepts are good for. Apparently, our concepts help us to recognise to which categories particulars belong; they drive our classifications.

Note that the claim is not that Susan must be able to recognise each and every dog in each and every situation to possess the concept of dogs. There are circumstances in which an error does not indicate lack of the concept but missing information about the object, or too much misinformation. Susan might have the concept of dogs although she is not capable of recognising Lassie as a dog when she sees it from a

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1. For some or all of these assumptions cf. Bealer 1998, 272, Davies 1995a, 313, 325, Davies 1995b, 361, 367, Peacocke 1992, 43, and Williamson 1995, 553.

2. These views can be found in Carey 1992, 89, Fodor 1998, 25, Thagard 1992, 21 f.

long distance. The idea is rather that there are certain ideal conditions under which the possessor of a concept should recognise of a number of objects that they belong to the corresponding class.

It is surely difficult to spell out these conditions in a non-circular way. But that is not the problem I am after. I rather have doubts concerning the requirement that the possessor can prove himself with respect to *different* objects. To have the concept of dogs, Susan is expected to recognise not only of Lassie that it is a dog but also of, say, Rover and Fido. If there is only *one* dog she is able to classify as a dog, so the claim goes, then she lacks the concept of dogs. Briefly, her recognitional ability must display a certain *plasticity*.

But, in the light of the conceptualisation principle, this seems to be false because the above-mentioned attitudes have a conceptual content and thus entail concept possession. If Susan lacks the concept of dogs, then she also lacks the ability to recognise (identify, classify) Lassie as a dog. Conversely, if she is able to recognise that Lassie is a dog, she must have the concept of dogs. Hence, even if a person's recognitional ability is restricted to just one instance, this suffices for her to possess the concept at issue. It is not required that there are *other* objects which she can also recognise as members of the class in question.

In the same way, the conceptualisation principle challenges Ruth Millikan's account of so-called "substance concepts", such as the concept *milk*:

[T]he core of a substance concept is a [...] capacity to recognize what is objectively the same substance again as the same despite wide variation in the faces it shows to the senses. (Millikan 1998, 61)

Suppose we know about just one situation in which a child has recognised that a liquid is milk. According to Millikan, this would not validate the conclusion that it has the concept of milk. But the conceptualisation principle rules that the child cannot recognise the liquid as milk without possessing that concept. There is thus no reason to examine whether the child is able to recognise milk in circumstances in which it shows other faces to the senses. That kind of plasticity seems to be irrelevant as well.

*Inferential Abilities and Transitional Dispositions.* Other people subscribe to an inferential theory of concept possession. According to it, having a concept is to be able, or to be disposed, to make certain inferences. Thus, Jonathan Evans says:

[I]f I were not able to infer from the statement ‘John is Mary’s father, and Kate is the daughter of Mary’ that John is the grandfather of Kate, then it would be hard to see how I could be said to possess the concept of ‘grandfather’. (Evans 1989, 30<sup>3</sup>)

Obviously, if I can infer that someone is a grandfather from certain assumptions, or if I can infer certain conclusions from the premise that someone is a grandfather, then I possess the concept of a grandfather. If I failed to have that concept, I would not be capable of making such inferences because I could not grasp the conclusion or one of the premises. The attitudes involved in a person’s inferences have a conceptual content. Therefore, inferential abilities entail concept possession.

But we run into difficulties if we take the ability to make a *variety* of inferences, or the ability to make *special* inferences, as a constraint on concept possession. This is just as questionable as the claim that a possessor of a concept should be able to recognise different, or special, instances. For according to the conceptualisation principle, if I am able to make *any* inference involving the concept, then I have it. If I can infer that John is the grandfather of Kate from the premises that Kate is the daughter of Mary and Mary the daughter of John, then I possess the concept of grandfathers. But I possess it as well if I am able to infer that John is Kate’s grandfather from the assumption that someone told me that he is.

For more observational concepts, such as *red*, talk about inferences seems to be out of place. Here it is more plausible to require that a possessor is disposed to make certain transitions from *sensations* to beliefs, where these transitions can hardly be called inferences. One could hold, for example, that to possess such a concept means to be disposed to believe that something is an instance of it, given that one takes certain perceptual experiences at face value. A thinker having the concept *red*, so the story goes, is disposed to believe that something is red when it appears red to him, provided he does not think that the perceptual circumstances are unusual (cf. Peacocke 1992, 7).<sup>4</sup>

Apparently, the condition mentioned here is sufficient for the simple reason that a person is disposed to believe that something is red only if she has the concept *red*. If that concept does not belong to her reper-

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3. Cf. also Hampton & Dubois 1993, 13, and Smith 1989, 501f.

4. ‘*X* appears red to *S*’ is supposed to describe an experience with a non-conceptual content.

toire, she is not able to entertain the thought that something is red and is thus not disposed to believe that it is red. But there are numerous other dispositions which seem to be sufficient as well. At first glance, a person who is disposed to *doubt*, or even *disbelieve*, that something is red under the same conditions does not possess the concept *red*. But doubt is just as much subject to the conceptualisation principle as belief: it is an attitude with a conceptual content. Tom has the disposition to doubt that something is red only if he possesses the concept *red*. Therefore, it does not matter whether someone is disposed to believe or doubt the proposition in question—he must have the concept anyway. And so, why should possession of an observational concept require the disposition to acquire a *belief* in certain perceptual circumstances?

*Knowledge of Definitional or Typical Features.* Some years ago, especially philosophers in the analytic tradition, but also many linguists and psychologists, thought that a huge variety of concepts can be analysed with the help of necessary and sufficient conditions. Accordingly, they took possession of such a concept to consist in knowing the definition associated with it.<sup>5</sup> If Susan knows that vixens are female foxes, she possesses the concept of vixens. If she does not know that definition, she fails to have the concept.

The problem here is: knowing that vixens are female foxes is, of course, sufficient for having the concept vixen; but the sufficiency does not depend on knowing the definition because it does not matter which expression we put in place of '*F*' in '*S* knows that vixens are *F*'. In the light of the conceptualisation principle, if a person knows that vixens have a certain property, whether it is definitional or not, then she has the concept of vixens. For example, Susan's knowledge that vixens are foxes is already enough for possession of that concept. She must have that concept because, otherwise, she could not grasp the thought in question.

It is sometimes said that we know the definitions only *implicitly* (or *tacitly*). This might raise the doubt that the knowledge at issue does not have a conceptual content. But that depends on how to understand 'implicit' here. By referring to Chomsky, William Ramsey (1992, 61f.) suggests that implicit knowledge of definitions is on a par with the subdoxastic states postulated in cognitive science. Then, of course, my

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5. Cf. Bruner et al. 1956, *passim*, and Sutcliffe 1993, 60. Cf. also Ramsey 1992, 60f., and Stich 1993, 216–218, who introduce that view to criticise it afterwards.

argumentation would be invalid because these states do not presuppose that the thinker possesses the concepts involved.

But I think this picture is misleading. Like Stephen Stich (1993, 218), I take the supposed knowledge of definitions to be implicit only insofar as “it is not available in a form that enables us to specify [the necessary and sufficient] conditions”. This does not mean that we fail to have the concept, but that we cannot present its definition off the cuff. Our access to the definitions is not blocked in the fundamental way it is blocked when we lack the concepts. For we do not *acquire* the concepts by considering actual and counterfactual cases; we already *have* them. After all, we could not classify the entities in question as falling under the concept if we did not possess it.

Nevertheless, the history of philosophy shows that it is quite hard to find acceptable definitions even after an extended investigation of actual and hypothetical cases. The search for an analysis of knowledge in reaction to Edmund Gettier’s famous paper is a classic example. This has led a number of people to abandon the definitional theory in favour of prototype accounts. According to them, it is not required that the possessor of a concept knows necessary and sufficient conditions. They rather take concept possession to consist in knowing which features are *typical*, or *characteristic*, of the objects in question. To have the concept of birds, for example, I should know that having wings and a beak, eating worms and flying is typical of birds.<sup>6</sup>

Although that proposal might offer advantages over the definitional story, it does not escape the challenge of the conceptualisation principle. Again, there is nothing to be said against the claim that knowing a number of typical features guarantees that a thinker possesses the concept. If Susan failed to have the concept of birds, she could not know that having wings, eating worms and flying is typical of birds because she could not grasp the common component in these thoughts. But knowing just *one* feature, whether it is typical or not, is sufficient as well. For the conceptualisation principle allows me to conclude that Susan has the concept of birds from the mere fact that she has knowledge involving that concept. It does not matter whether her knowledge concerns a *typical* feature. So much the more, it is irrelevant whether she knows a *number* of typical features.

*Knowledge of a Theory.* Finally, let us cast a quick glance at the

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6. Cf. especially Rosch 1978, *passim*, and Rosch & Mervis 1975, *passim*.



so-called theory-theory of concepts, which has many followers in psychology these days. It states that concepts have a theory-like structure. That means, among other things, concepts do not only contain information about features of the objects in question, but also about relations between those features, where explanatory and causal relations take a central place. For example, possession of the concept of birds does not only consist in knowledge of the fact that birds typically have wings and fly, but also of the fact that they fly *because* they have wings.<sup>7</sup>

However, given the conceptualisation principle, having but one belief whose content includes the concept *bird* is sufficient for possessing it. It is irrelevant whether that belief is part of a theory or not. Hence, like all the other accounts, the theory-theory appears to be too demanding.

### 3. *Two Kinds of Concept Possession*

Is there a way out of the puzzle? Let us have a closer look at its general structure. On the one hand, there are rather weak conditions which seem to be sufficient for concept possession. *Prima facie*, possessing a concept is a precondition of having any propositional attitude involving it as well as being able or disposed to acquire such an attitude:

*S* has/is able to have/is disposed to have a propositional attitude whose content contains the concept of *F*s → *S* possesses the concept of *F*s.

On the other hand, there are stronger conditions which appear to be necessary for possession of a concept. As to the dialogue in section 1, if Tom does not know what a cylindric algebra is, it seems he does not possess the concept of cylindric algebras. As to the theories I discussed in section 2, they claim that having a number of attitudes involving the concept, or a certain attitude, or even an ability or disposition to acquire them, is a necessary condition of concept possession:

*S* possesses the concept of *F*s → There are a number of, or special, propositional attitudes whose content contains the concept of *F*s such that *S* has/is able to have/is disposed to have them.

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7. Cf. Carey 1991, 460, and Murphy & Medin 1985, 425, 437.

Hence, if we are talking here about the same thing, we run into trouble because it would appear that these claims cannot be both true. If the weak conditions are *sufficient*, the strong conditions are hardly *necessary*; and vice versa. So, it looks like one side had to give up.

But note the qualification ‘if we are talking about the same thing’. It opens up a third possibility. Perhaps, the weak and the strong conditions are attached to different types of concept possession. The weak conditions might be sufficient for a weak kind of concept possession, while the strong conditions are necessary for a stronger kind. This would clear up the apparent incongruity as well.

In my view, this is exactly what happened here. The puzzle rests on an ambiguity in attributions of the form ‘*S* possesses the concept of *F*s’. Remarkably, a number of authors have proposed to distinguish different kinds of concept possession. To take just two examples, George Bealer (1998, 272) makes a distinction between possessing a concept *nominally* and possessing it *in the full sense*; and Mark Crimmins (1989, 287) suggests to separate having *any idea whatsoever* of the category in question from having a *concept*, in the sense of having a *normal* idea.<sup>8</sup> For all that, the ambiguity has not received the attention it deserves. Many people who present theories of concept possession act as if their topic were sufficiently demarcated. They are not sensible of the challenge provided by the conceptualisation principle.

What does the ambiguity amount to? In rough outline, by ‘Susan possesses the concept of dogs’ we can either mean that she has a particular *thought part* at her disposal or that she has a certain *conception* of dogs. The former just amounts to claiming that she is able to think of objects, or to represent them in mind, as belonging to a certain class, in this case, as being dogs. Possessing concepts in this sense is a precondition of having propositional attitudes. But talk about concept possession often takes a different course. When I say that Susan’s

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8. James Higginbotham (1998, 149) distinguishes between just *possessing* a concept and *having an adequate conception* of it. Georges Rey (1992, 323) separates a *predicate in the language of thought* from the *file* (that is, the *conception*) it labels. Lance Rips (1995, 83) proposes a distinction which is quite similar to Rey’s. According to him, there is a representation *of* a category (“a word-like entity in the language of thought”) and a representation *about* a category (“the associated mini-theory”). Andrew Woodfield (1991, 549) draws a line between concepts as *ingredients of thoughts* and concepts as *structures incorporating beliefs*. Finally, my exposition draws heavily on Wayne Davis’s (2003, § 19.4) distinction between *concepts* and *conceptions*.

concept of dogs differs from Tom's, I mean that they have different conceptions of dogs. The way Susan conceives of dogs differs from the way Tom does because, for example, they have different beliefs about them. Although both of them are able to think of dogs, they conceive of them in different ways.

Furthermore, conceptions can be more or less adequate (or accurate). To be sure, spelling out how to determine degrees of adequacy is not a trivial task. A quick suggestion would be to let adequacy vary with the number of true beliefs in the thinker's conception. But, first, false beliefs are also relevant, and, second, it is not an easy thing to count beliefs. Moreover, it seems that the accuracy of a conception depends also on the *significance* and *strength* of beliefs. A person who thinks that some cats are robots from Mars might have a less accurate conception of cats than a person who believes that all of them are animals, even if the first person has more true and less false beliefs about cats. And someone who strongly believes that cats are animals might possess a more adequate conception than someone who is not really sure about that issue, although, apart from that, their conceptions are the same.

However, even if we can provide only some rules of thumb, it is still a fact that we distinguish between adequate and inadequate conceptions and that we know tests to find out whether a thinker has an adequate conception. One of them is to ask him for an explanation. If Tom answers our question of what a prime number is by saying that it is a number which has exactly two divisors, there is a good reason for assuming that he has an adequate conception of prime numbers.

Frequently, however, people are not able to offer explanations. This does not imply that they lack an adequate conception. It might rather be the case that they are merely not capable of putting it into words. In such a case, we have to make use of another test by examining their classifications. Even if Tom is not able to explain what dogs are, we are allowed to conclude that he has an adequate conception of them, given that he can assess quite well whether something is a dog or not. In other words, if it turns out that he is a good judge of whether something is a dog, then this is a strong reason for granting him an adequate conception of dogs.

The distinction between adequate and inadequate conceptions is important for the second reading of 'S possesses the concept of Fs' because that reading implies more than S's possessing any conception of Fs whatsoever. If Susan's conception of dogs were inadequate, then

it would be wrong to say, in the second sense, that Susan possesses the concept of dogs. According to that interpretation of concept possession, having the concept of dogs is to have an *adequate* conception of dogs:

$S$  possesses the concept of  $F$ s  $\leftrightarrow$   $S$  has an adequate conception of  $F$ s.

Since the expression ' $F$ s' in ' $S$  possesses the concept of  $F$ s' occupies an opaque position, ' $S$  has an adequate conception of  $F$ s' must be read in the same fine-grained way. Even if the general terms ' $F$ ' and ' $G$ ' have the same extension,  $S$  can have an accurate conception of  $F$ s without having an accurate conception of  $G$ s. In that sense, Tom might have an adequate conception of natural numbers between 1 and 4 while lacking an adequate conception of prime numbers smaller than 4.

We do not need this proviso if we make use of another formulation which amounts to the same. It is the formulation which Tom used in the dialogue presented at the beginning. Having an accurate conception of dogs is the same as knowing what dogs are. 'Tom knows what dogs are' is, I believe, even a *more natural* façon de parler. So, we can just as well explain the second kind of concept possession as follows (cf. Davies 1995a, 325):

$S$  possesses the concept of  $F$ s  $\leftrightarrow$   $S$  knows what  $F$ s are.

Here we do not have to emphasise that the explanans is to be understood in an intensional way because that is the conventional way to interpret it.

This kind of concept possession entails the first kind, but not the other way round. Susan might be able to think of dogs without having an adequate conception of them. She might recognise, for example, that dogs are in an important respect different from the way she conceived of them up to now. In contrast, if she has any conception of dogs, then she must also be capable of thinking about them. All the more, she must have this ability if she knows what dogs are.

Note that I do not want to rule out cases where we have to give a meta-linguistic analysis of what a person believes, desires, hopes and so on. Suppose Tom hears the word 'illocution' for the first time. He knows that it is a noun, but he has no idea of what it denotes. He might wonder then what an illocution is; but, arguably, this just means that he

wonders to what entitles the word 'illocution' applies. The content of this attitude does not contain the concept of an illocution but the concept of the word 'illocution'. Hence, for such a case, the conceptualisation principle does not require of Tom that he has the concept of illocutions but the concept of the expression 'illocution'.

For this reason, I merely claim that we should grant *three* kinds of situations. First, there are cases where the thinker knows what *Fs* are and is thus in a position to have attitudes involving the concept of *Fs*. Second, there are situations where the subject knows a word for *Fs*, but has no idea of what *Fs* are. Then the contents of his attitudes contain the concept of the word instead of the concept of *Fs*. Third, there are cases in between where the thinker has attitudes involving the concept of *Fs* without knowing what *Fs* are. Just think of 'deferential' uses of words à la Burge (1979).

My understanding of the word 'elm' is as poor as my understanding of 'beech'. I know that these words denote different kinds of deciduous trees, but I have no idea how to tell the one from the other. Nevertheless, I do not use these expressions in an ideosyncratic sense. I rather defer in my use to the competent English speakers because I intend to refer by these words to what they refer. Given these circumstances, our common practice of ascribing propositional attitudes allows to attribute elm- and beech-beliefs to me. There is nothing wrong, e.g., in saying that I believe elms to be different from beeches. And if a friend whom I take to be an expert on trees assures me on a walk that a certain tree is an elm, then I believe that it is an elm.

To further substantiate the ambiguity in '*S* possesses the concept of *Fs*', let me add that we also find it in the realm of understanding speech acts. When people talk to each other, it is sometimes said that a misunderstanding arose because speaker and hearer associated different concepts with an expression. Such a remark can be interpreted in different ways that are close to the ways in which the claim that someone possesses a concept can be understood.

Suppose Susan utter's the sentence 'Kangaroos live in Australia'. In the first sense, Tom associates another concept with the word 'kangaroo' than Susan if it prompts him to think of different things. If Susan has in mind kangaroos whereas Tom thinks of koala bears, he does not understand what she says. At most, he will recognise which property she assigns to the objects in question. But he will not understand of which objects she predicates the property.

However, even when speaker and hearer have in mind the same objects, there is a second kind of associating a concept with a word which can cause misunderstanding. They might associate different conceptions with the expression. This can lead to misunderstanding by leading to unwelcome inferences. A case in point are implicatures.

If I ask Susan whether she likes Hollywood movies, and she answers ‘I hate happy ends’, I immediately know what she wants to communicate. She wants to tell me that there are many Hollywood movies she does not like. My conception of Hollywood movies includes the knowledge that many of them have a happy end; thus, I can infer that Susan hates them from what she literally says. But suppose my conception of Hollywood movies was different. I falsely conceive of them as ending in disaster. Then I would misunderstand Susan’s remark as implying that she *likes* Hollywood movies. This misunderstanding is not due to an association of different concepts in the *first* sense. It does not arise because we have in mind different objects. I rather misunderstand Susan’s answer because my *conception* of Hollywood movies is different from hers.

#### 4. *Solving the Puzzle*

It is rather obvious now how the distinction between having a thought part at one’s disposal and having an adequate conception may help to solve the puzzle. Let us first have a look at the tension in the dialogue I presented in section 1. When Tom, in his first remark, says that he does not know what a cylindric algebra is, this means that his conception of cylindric algebras is not adequate. It does not mean that he lacks the concept of a cylindric algebra in the sense of not being able to think about them. Hence, Tom’s first claim does not contradict his later assertion to believe that the algebra Susan pointed at is cylindric. For that attitude does not require that he knows what cylindric algebras are.

Generally speaking, the conceptualisation principle is a principle for the first sense of ‘*S* possesses a concept of *Fs*’. The condition it states is a sufficient condition for the ability to think of *Fs*. Or, conversely, it says that this ability is necessary for having certain propositional attitudes. In contrast, it does not claim that they require concept possession in the second sense. Or, to put it again the other way round, it does not say that propositional attitudes are sufficient for having an adequate

conception of the objects in question.

What about the stronger conditions which many people impose on concept possession? They are too strong if we interpret them as necessary conditions of concept possession in the *first* sense. For example, to be able to think of dogs, Susan need not be capable of recognising different dogs in different circumstances. It suffices if she can classify only one object as a dog. For that ability requires her to be capable of grasping the thought that something is a dog.

The stronger conditions have much better prospects of survival if we understand them as constraints on concept possession in the *second* sense. Thus, an adequate conception might entail recognitional abilities. Arguably, Susan knows what dogs are only if the way she imagines dogs grounds an ability to recognise them. It may be such an ability which tells an adequate from an inadequate conception of dogs. Or, to take just one further example, accurate conceptions might imply certain inferential abilities. *Prima facie*, Tom knows what a grandfather is only if he can infer that John is the grandfather of Kate from the premises that John is the father of Mary and Mary the mother of Kate.

Thus, acknowledging the ambiguity in ‘*S* possesses the concept of *F*s’ enables one to solve the puzzle. There is no contradiction because we are not talking about the same thing. The relatively undemanding kind of concept possession which is necessary for propositional attitudes is different from the stronger kind which might require recognitional or inferential abilities.<sup>9</sup>

As far as I can see, cognitive psychologists are concerned with conceptions anyway. The psychologist Lance Rips makes that quite explicit. He says:

I’m tempted by ‘conception’ as a less ambiguous way of referring to the psychologists’ ‘concept’, but it sounds too clumsy to me. So I’ll continue to use ‘concept’ in its psychological meaning. (Rips 1995, 74, fn.; cf. also Barsalou 1989, 94f.)

Other writers more indirectly indicate that they examine conceptions, by either using ‘concept’ and ‘conception’ interchangeably (cf., e.g., Carey 1991, 459) or by introducing concepts in ways like the following:

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9. Cf. Rips 1995, 98, whose distinction between a representation *of* and a representation *about* a category is supposed to reconcile “the opposing demands of categorizing and language understanding”.

[W]e will use the term *concept* in this paper in a purely descriptive way to denote the subjective representations of categories, that is, we are interested in the *knowledge structures* people use to categorize exemplars or to make typicality judgments. (Goschke & Koppelberg 1991, 140; my emph.<sup>10</sup>)

Psychologists want to know, for example, whether there is a difference between conceptions of natural kinds and artifacts, whether the conceptions Itzaj Maya have of birds differ from a North American's conception, whether the expert's conception of trees is different from the layman's, and so on. Hence, they are sitting pretty because their topic is not the weak sort of concept possession which is subject to the conceptualisation principle.

Philosophers who advocate the theories of concept possession I discussed in the second section would also be in a better position if they presented their theories as theories of what it means to have an adequate conception of a category. At least, they should make it clear that they are concerned with a stronger kind of concept possession than the one to which the conceptualisation principle applies.

Besides, a closer look reveals that this indeed seems to be what some writers do. But one can be misled about their goal because they do not emphasise right at the outset what they want to analyse. For example, after presenting the possession conditions for the concept *red* in his *A Study of Concepts*, Christopher Peacocke observes that there can be persons who have beliefs involving that concept without satisfying the constraint he imposes on possessors of it. But this does not go well with his acknowledgement of the conceptualisation principle (cf., e.g., Peacocke 1992, 43). At this point, Peacocke (1992, 29) says that a possession condition "states what is required for *full mastery* of a particular concept" (my emph.). Thereby, he stresses that his account is not an account of concept possession in the weak sense in which being able to entertain thoughts containing a concept suffices for possessing it. It is rather an account of something stronger which I would call 'knowing what *Fs* are' (cf. Davis 2003, § 16.6).

A welcome side effect of this approach to (philosophical and psychological) theories of concept possession is that Jerry Fodor's compositionality argument against many of them loses some of its power.

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10. Cf. also Cohen & Murphy 1984, 31, and Medin & Goldstone 1990, 77.



In Fodor's opinion, concept possession can neither be equated with knowing prototypes or theories nor with recognitional abilities because concepts are compositional whereas these counterparts lack compositionality (cf., e.g., Fodor 1998, Ch. 5). This argument might prove that the theories at issue, taken as theories of concept possession in the *first* sense, are wrong. That is, those theories might not capture the ability to think of a class of objects because that ability displays compositionality. But the argument is far away from showing that there is no intimate relation between *conceptions* and prototypes, theories or recognitional abilities. To show that, Fodor needs the premise that conceptions as well are subject to compositionality. And why should one suppose that?

### 5. *Open Questions and Problems*

I am only too well aware that some aspects of my solution to the puzzle are rather sketchy. There are many questions craving for an answer. I conclude by offering some of these questions.

First, can the weak type of concept possession be further elucidated? And, given that this is possible, do we need recourse to the language of thought hypothesis? Do we have to put the ability to think of dogs on a par with having a word-like representation of dogs in one's mind? That seems to be Georges Rey's (1992, 323) and Lance Rips's (1995, 83) idea. Both of them introduce distinctions between different kinds of concept possession which amount to distinguishing having an expression in the language of thought from something else.

Second, there are pressing questions about conceptions. One of them is: What are their ingredients? Wayne Davis (2003, 500) holds that '*S* conceives of *Fs* as *G*' implies '*S* believes *Fs* to be *G*'. Consequently, he takes conceptions to be belief systems. But we have to be careful here. Josep Macia (1998, 183) suggests that conceptions may contain emotional items as well. Some people's conception of dogs might include not only the belief that dogs are dangerous but also fear of dogs. Andrew Woodfield's (1991, 554) characterisation of a conception as "any content-bearing state or episode against which some other mental state or episode is set" gives rise to the same speculations. After all, sometimes we set a state against an emotion in order to get a deeper understanding. I better understand Tom's desire for prohibiting people to keep fighting dogs if I learn to know that he is extremely afraid of them. Moreover,

Woodfield (1991, 552) has pointed out that, according to the *ordinary* notion, a person can conceive of something as having a certain property without believing it to have the property. While watching the clouds, I might conceive of them as sheep flying in the sky. But I do not believe that they are sheep.

To be sure, the notion of *adequate* conceptions is not touched by the latter example of a fanciful conception. A thinker has an adequate conception of clouds if he knows what clouds are. And the fact that I sometimes conceive of clouds as sheep in the uncommitted way described is irrelevant to the question whether I know what clouds are. It is rather far-fetched to say that a person does not know what clouds are just because there are moments where she is lost in such imaginative thought. But concluding from this that adequate conceptions consist of nothing but beliefs needs further argumentation. Just think of conceptions of dangerous animals. What is wrong in saying that a child does not know what tigers are as long as it is not afraid of them?

Furthermore, although beliefs might form an essential ingredient of conceptions, the next question is whether a person's conception of a category contains each and every belief he has about it. Consider Tom who learns German as a second language. In that process, he acquires the belief that cats are called 'Katze' in German. Although his set of beliefs about cats changes thereby, it is questionable whether his conception of cats is different afterwards. Arguably, the conception a person has of *Fs* contains only a subclass of the beliefs he possesses about *Fs*.

But these are only minor problems, compared with the next issues. For, third, it is far from obvious that there is a *uniform* account of adequate conceptions. It might well be true that different types of concepts are connected with different types of possession conditions. For example, whereas it may be necessary for an adequate conception of a colour to ground a recognitional ability, kinship concepts and many mathematical concepts could be closer to knowledge of a definition which enables one to make certain inferences. In other words, knowing what *Fs* are comes in numerous varieties. I might not know what a prime number is if I do not know the definition of a prime number. But I need not know a definition of dogs to know what dogs are. In the latter case, it may suffice that I know how a typical dog looks like and that I am aware of the fact that outward appearance can lead one astray. I suspect that those philosophers who hold that concept possession can be captured just by, say, recognitional abilities suffer from an unbalanced diet of examples.

Fourth, we must reckon with the possibility that having an adequate conception is a *context-relative* affair even if we restrict ourselves to a particular concept. What counts as an accurate conception of a particular category in one situation need not count as adequate in other circumstances. In a *law* examination, the candidate shows that he has an adequate conception of marriage by telling which legal arrangements, duties and rights are involved. He need not know that marriage is a *Catholic sacrament*. In an examination on Catholic theology, however, the candidate's conception of marriage will not be judged as being adequate if he does not know that it is a Catholic sacrament. In both cases, there is no reason to assume that the subject does not possess the concept in the *first* sense. Even if the examination answers are not satisfactory, they indicate that the candidate is capable of thinking about marriage. The difficulty is rather that there are different demands for concept possession in the *second* sense. The propositions the law candidate has to know in order to have an adequate conception of marriage are different from the propositions which the theology candidate has to know.

Again, the close relationship of having an adequate conception of *F*s to knowing what *F*s are argues in favour of context-relativity. When does a person know what dogs are? That depends, I think, just as much on context as knowing *who* someone is (cf. Davis 2003, 440):

[R]elative to an interest in locating him, we learn *who* the secretary of the bridge club is by learning that he is the person standing by the window. Relative to an interest in his name and occupation, we learn *who* he is by learning that he is Oswald Culbertson, author and rank player. Relative to an interest in his performance, we may learn *who* he is by learning that he is the one who bid and made seven spades missing two aces. (Loar 1976, 363)

Similarly, a child learns what dogs are by learning what they look like, how they behave, and so on. But there is also a more ambitious kind of knowing what dogs are which is essential for a biology examination. A candidate who knows nothing about the morphology and evolution of dogs does not satisfy the criteria for knowing what dogs are which apply in such a situation.

Hence, realising that concept possession is an ambiguous affair is only the first step towards a tenable theory. To take the next step, we have to remove further obstacles from our path. I would be quite happy,

however, with having the reader convinced, at least, that there is the puzzle about concept possession I tried to point out. I think it is a real problem which any serious theory of concepts should try to solve. It presses us to put the following question on our agenda: Which phenomenon do we try to analyse when we examine concept possession?

#### REFERENCES

- Barsalou, L. W. 1989: "Intraconcept Similarity and Its Implications for Interconcept Similarity", in: S. Vosniadou & A. Ortony (eds.), *Similarity and Analogical Reasoning*, Cambridge/Mass., 76–121.
- Bealer, G. 1998: "A Theory of Concepts and Concept Possession", in: E. Villanueva (ed.), *Philosophical Issues 9: Concepts*, Atascadero/Cal., 261–301.
- Bruner, J., Goodnow, J. & Austin, G. 1956: "The Process of Concept Attainment", Ch. 3 of *A Study of Thinking* (New York), in: E. Margolis & S. Laurence (eds.), *Concepts. Core Readings*, Cambridge/Mass. & London 1999, 101–123.
- Burge, T. 1979: "Individualism and the Mental", *Midwest Studies in Philosophy* 4, 73–121.
- Carey, S. 1991: "Knowledge Acquisition: Enrichment or Conceptual Change?", in: E. Margolis & S. Laurence (eds.), *Concepts. Core Readings*, Cambridge/Mass. & London 1999, 459–487; orig. publ. in: S. Carey & R. Gelman (eds.), *The Epigenesis of Mind. Essays on Biology and Cognition*, Hillsdale/N.J.
- 1992: "The Origin and Evolution of Everyday Concepts", in: R. N. Giere (ed.), *Cognitive Models of Science (Minnesota Studies in the Philosophy of Science 15)*, Minneapolis, 89–128.
- Cohen, B. & Murphy, G. L. 1984: "Models of Concepts", *Cognitive Science* 8, 27–58.
- Crimmins, M. 1989: "Having Ideas and Having a Concept", *Mind & Language* 4, 280–294.
- Davies, M. 1995a: 'Tacit Knowledge and Subdoxastic States', in C. Macdonald & G. Macdonald (eds.), *Philosophy of Psychology. Debates on Psychological Explanation* 1, Oxford, 309–330.
- Davies, M. 1995b: 'Reply: Consciousness and the Varieties of Aboutness', in C. Macdonald & G. Macdonald (eds.), *Philosophy of Psychology. Debates on Psychological Explanation* 1, Oxford, 356–392.
- Davis, W. 2003: *Meaning, Expression, and Thought*, Cambridge.
- Evans, G. 1981: "Semantic Theory and Tacit Knowledge", in: S. H. Holtzman

- & C. M. Leich (eds.), *Wittgenstein: To Follow a Rule*, London, 118–137.
- Evans, J. 1989: “Concepts and Inference”, *Mind & Language* 4, 29–34.
- Fodor, J. A. 1998: *Concepts. Where Cognitive Science Went Wrong*, Oxford.
- Goschke, T. & Koppelberg, D. 1991: “The Concept of Representation and the Representation of Concepts in Connectionist Models”, in: W. Ramsey, S. Stich & D. Rumelhart (eds.), *Philosophy and Connectionist Theory*, Hillsdale/N.J., 129–161.
- Hampton, J. A. & Dubois, D. 1993: “Psychological Models of Concepts. Introduction”, in: I. van Mechelen, J. Hampton, R. S. Michalski & P. Theuns (eds.), *Categories and Concepts*, London, 11–33.
- Higginbotham, J. 1998: “Conceptual Competence”, in: E. Villanueva (ed.), *Philosophical Issues 9: Concepts*, Atascadero/Cal., 149–162.
- Loar, B. 1976: “The Semantics of Singular Terms”, *Philosophical Studies* 30, 353–377.
- Macia, J. 1998: “On Concepts and Conceptions”, in: E. Villanueva (ed.), *Philosophical Issues 9: Concepts*, Atascadero/Cal., 175–185.
- Medin, D. L. & Goldstone, R. L. 1990: “Concepts”, in: M. W. Eysenck (ed.), *The Blackwell Dictionary of Cognitive Psychology*, Oxford, 77–83.
- Millar, A. 1991: “Concepts, Experience and Inference”, *Mind* 100, 495–505.
- Millikan, R. 1998: “A Common Structure for Concepts of Individuals, Stuffs, and Real Kinds: More Mama, More Milk, and More Mouse”, *Behavioral and Brain Sciences* 21, 55–65.
- Murphy, G. & Medin, D. L. 1985: “The Role of Theories in Conceptual Coherence”, in: E. Margolis & S. Laurence (eds.), *Concepts. Core Readings*, Cambridge/Mass. & London 1999, 425–458; orig. publ. *Psychological Review* 92, 289–316.
- Peacocke, C. 1992: *A Study of Concepts*, Cambridge/Mass.
- Ramsey, W. 1992: “Prototypes and Conceptual Analysis”, *Topoi* 11, 59–70.
- Rey, G. 1992: “Semantic Externalism and Conceptual Competence”, *Proceedings of the Aristotelian Society* 92, 315–333.
- Rips, L. 1995: “The Current Status of Research on Concept Combination”, *Mind & Language* 10, 72–104.
- Rosch, E. 1978: “Principles of Categorization”, in: E. Rosch & B. B. Lloyd (eds.), *Cognition and Categorization*, Hillsdale/N.J., 27–48; republ. in: E. Margolis & S. Laurence (eds.), *Concepts. Core Readings*, Cambridge/Mass. & London 1999, 189–206.
- Rosch, E. & Mervis, C. B. 1975: “Family Resemblances: Studies in the Internal Structure of Categories”, *Cognitive Psychology* 7, 573–605.
- Smith, E. E. 1989: “Concepts and Induction”, in: M. I. Posner (ed.), *Foundations of Cognitive Science*, Cambridge/Mass., 501–526.

- Stich, S. 1993: "Moral Philosophy and Mental Representation", in: M. Hechter, T. Nadel & R. Michod (eds.), *The Origin of Values*, Hawthorne/N.Y., 215–228.
- Sutcliffe, J. P. 1993: "Concept, Class, and Category in the Tradition of Aristotle", in: I. van Mechelen, J. Hampton, R. S. Michalski & P. Theuns (eds.), *Categories and Concepts*, London, 35–65.
- Williamson, T. 1995: "Is Knowing a State of Mind?", *Mind* 104, 533–565.
- Woodfield, A. 1991: "Conceptions", *Mind* 100, 547–572.