



McGill  
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Foundations & Philosophy of Science Unit

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Dear Professor Premack

Thank you for yours of the 4th concerning Sarah's attributing mental states or processes.

I agree with you: that is a feat. While many a lower animal attributes other objects some of their perceptible properties, only some of the higher vertebrates are capable of attributing us intentions, knowledge, and the like.

My only objection was to the use of the term 'inference' to describe such attributions. I suggested that the right word is 'hypothesis'. Thus Sarah hypothesizes that Dr Premack has such and such an intention. But such attributions, while hypothetical, are not inferential: they are not results of any reasoning process.

However, I may be mistaken and would not be surprised if one day you were to show that Sarah, in addition to making hypothetical attributions, makes them as results of inferences. For example, you may well succeed in showing that Sarah uses certain generalizations as indicators of other primates' mental states. Thus I should be delighted to learn that Sarah is capable of making inferences such as this one:

Whenever a human does X, s/he thinks of Y.  
Dr Premack is a human and is doing X.  
Hence Dr Premack thinks of Y.

(Even a generalization with a narrower scope, such as "Whenever Dr P does X, s/he thinks of Y" , would suffice.)

It would be VERY important, not only scientifically but also philosophically and, indeed, ideologically, to show that such is the case: that apes can reason--and perhaps not much worse than preliterate humans. Nevertheless it may prove experimentally extremely difficult to prove that apes reason when attributing mental states to other primates. It should be far easier to prove that they solve conceptual problems, even if simple ones, involving inference proper. But I presume that you have done so long ago, e.g. by showing that Sarah uses the basic mode of inference (or *modus ponens*) in some such way as:

If Sarah is a good girl then Sarah gets a sweet.  
Sarah is a good girl. What does Sarah get?

or the *modus tollens*:

If Sarah is a good girl the Sarah gets a sweet.  
Sarah does not get a sweet. Why?

I should be delighted to learn that Sarah can solve such problems.

Sincerely

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