PHIL 3923H: Deception and Delusion
Prof. Funkhouser
Dennett, "Intentional Systems in Cognitive Ethology"

• Ethologists used to be staunch Behaviorists and rejected attributing cognitive states to animals (e.g., for methodological or cautionary reasons). This is no longer the case.

• A real-world case of radical translation: vervet monkeys. It is worthwhile to wonder what, if anything, vervet monkeys mean by their calls, and whether these calls express belief-like states.

◦ Recall what it is to treat something, such as a vervet monkey, as an intentional system.

> To adopt the intentional stance toward these monkeys is to decide — tentatively, of course — to attempt to characterize, predict, and explain their behavior by using intentional idioms, such as "believes" and "wants", a practice that assumes or presupposes the rationality of vervets. (242)

◦ Dennnett distinguishes between different orders of intentionality. (243) This is an interesting distinction, because it seems to relate to the issue of communication and linguistic behavior. It does seem that third-order intentionality is necessary for linguistic behavior. (Second-order intentionality seems sufficient for mere manipulation.) If this is true, then the intentional interpretation of the vervet monkeys will shed some light on whether they are actually communicating through a language. (244) Higher order intentional states also correlate with intelligence, so they are worth exploring to better measure the intelligence of vervet monkeys.

◦ 2 features of intentionality: referential opacity and rationality.

referential opacity: A referentially opaque context is one in which truth is not necessarily preserved when you substitute co-referential terms.

◦ Example: Tom the vervet monkey gives a leopard call in the presence of Sam the vervet.

Q: Which order of intentionality is appropriate for this case? Dennett presents 5 possibilities. (245–246)

◦ What kind of evidence will help settle the intentional interpretation? For one, do vervets make these calls when, for all they "know", they are alone? They do not. This is evidence for promoting them to a higher-order of intentionality. Also consider the case of the false alarm during the vervet-battle. (248) Can other vervets detect, and then mistrust, vervets who give out false alarms?

◦ We should employ the *Sherlock Holmes Method* — that is, devise tricks (experiments) — to discover the intentional profile of a system. Examples: the possibly deceptive behavior of chimps (253–254) and dead bee removal (256).

• Many comparisons can be made between intentional systems theory and evolutionary theory. First note that the same vocabulary (e.g., rationalizing, intentionalistic vocabulary) is used in each domain. Dennett introduces this point by giving the example of ground-nesting birds that engage in distraction displays. Even if an individual bird does not satisfy the intentional description, Dennett claims that we can go up a level and attribute the intentional description to the species — e.g., the species *learned* to employ this *strategy* to *solve* a problem.

◦ Just as the norm of rationality governs Dennett's intentional systems theory, the norm of optimization governs the adaptationist's evolutionary theory. Dennett notes many parallels between criticisms of rationality-based intentional psychology and adaptationism-based evolutionary theory (i.e., the *Panglossian Paradigm*). B.F. Skinner and Gould/Lewontin are the representative critics, respectively.

◦ Criticisms:

1. Each theory is mere storytelling. Each theory is unfalsifiable, given enough creativity by the theorist. (262)

2. Each theory ignores the mechanistic details that provide the "real" explanations.

3. Each theory has been over-extended. That is, obviously false examples of intentionalistic and adaptationist explanations have been offered.

4. Their explanations are *ex post facto*.

◦ Responses:

Against 1 and 4: Dennett properly notes that these theorists typically do not simply revise their "stories" *ex post facto*. These theorists make informative predictions from these stances that could not be made from merely taking a more mechanistic or historical approach to the matter.

Against 3: We can concede the counter-examples. Such over-extensions are inappropriate, but this in no way damages the theory itself.

Against 2: Dennett claims that the mechanistic (e.g., physical stance) approach and the intentional stance approach answer different "Why?" questions. The mechanistic approach provides an historical answer — e.g., for why this particular action was performed or why we find this type of spot on the moth. Such a story will talk about muscle behavior, neuron firing, and the like, in the case of human action, and mutations, births, and the like, in the case of evolution of moth spots. But these explanations answer different questions than the *rationalizing* explanations of intentional systems theory and adaptationism.