Intentionality and Representation

Lecture 3: Teleosemantics

1. Getting contents from functions

Teleosemantic approaches to intentionality distinguish themselves from other naturalistic approaches to intentionality by their reliance on a concept of function that plays a prominent role in biology ('teleofunctions').

The general aim of teleosemantics is to explain the content of representations (inner or outer) in terms of the biological functions of these states.

The content of a symbol 'X' is X if and only if the function of 'X' is to represent X. This shifts the focus of discussion to the question: What is it for something to have a function to represent something or other?

2. Functions

Biological functions can serve as a model. "Pumping blood is the heart's function." This means that the heart is an organ "designed to" or "supposed to" pump blood, because it was naturally selected for and adapted for doing so. Biological functions get established over time (historical), and in a specific context.

What is the status of such functions?

- Are they real or not? (realism/anti-realism)
- If not, are we still entitled to use these concepts in our theories? (eliminativism/fictionalism)

3. Millikan's theory

Biological functions may explain intentionality, they are certainly not sufficient. My heart doesn't represent, even though it fulfils a biological function. The task is to explain what is special about traits that have a representational function.

Millikan's approach is bottom-up: it looks at the earliest, simplest instances of intentionality. Key examples: bee dances, beaver signals, etc.

In all these cases we can distinguish a triad: a *producer* of symbols, the *symbols*, and their *consumers*. The symbols cause a consumer to behave or respond in specific ways. Some of these consumer responses led systematically to the survival and reproduction of this representational triad. The conditions (facts) of why the responses lead to survival and reproduction enter into a Normal Explanation (type-level) of the tokening of a representation, and fix its content.

Misrepresentation becomes a kind of *malfunction*:

> If language device tokens and mental intentional states (believing that, intending to, hoping that) are members of proper function or 'biological' categories, then they are language devices or intentional states not by virtue of their powers but by virtue of what they are supposed to be able to do yet perhaps cannot do. For example, just as hearts and kidneys are sometimes diseased or malformed, so sentences and beliefs are sometimes false, and words and concepts are sometimes ambiguous and sometimes vacuous (Millikan 1984, 17)

4. Top-down approaches

David Papineau (1984, 1993) develops a 'top-down' teleosemantics. He starts with complex cognitive structures found in ordinary belief/desire psychology. For example, the satisfaction conditions (content) of a desire is that effect which it is the desire's biological purpose to produce.

5. Swamp people

Imagine that due to a lightning strike, particles in some swamp are rearranged to form a stable figure that is entirely indistinguishable from me. It is an exact duplicate, and after the strange event it walks off to a nearby coffee shop and order a latte.

Teleosemantic theories of intentionality seem committed to denying that this creature has thoughts, intentions, and that the noises it produces are meaningful. Is this fatal to their view?

6. Recent developments

Millikan and Papineau's theories of intentionality are output-oriented (focus on *normal* response to representations). They do not consider token representation to be carriers of information.

Nicholas Shea (2007) has argued that teleosemantics needs supplementation with such an informational component in order to explain adequately how simple representing systems function. (See Millikan's reply (2007).)

6. References

Millikan, R.G. 2007 'An Input Condition for Teleosemantics? Reply to Shea (And Godfrey-Smith)' *Philos. and Phenom. Research* 75(2): 436-455.

Shea, N. 2007 'Consumers Need Information: Supplementing Teleosemantics with an Input Condition' *Philos. and Phenom. Research* 75(2): 404-435.

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