**Swampman, Teleosemantics, A Posteriori Essences, and Kind Terms**

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1. Teleosemantics explains representation in terms of biological functions (and biological functions in terms of histories of natural selection).

A state R leads its consumer to perform behaviour B that fulfils its biological function E *if C*; the producer of R thus has the biological function of producing R *when C*. (In short, R has been designed to stand proxy for C.)

The producer and consumer can be distinct animals, as with vervet monkeys, or subsystems of one animal, as when your visual system informs your actions.

The relevant biological purpose needn’t always be survival and reproduction. Biological systems decompose into subsystems each with their own more specific functions. (For example, catching flying insects, satisfying human desires.)

Nor need the natural selection responsible for these functions be intergenerational selection of genes.

2. Still, why bring in past histories of natural selection at all? If it’s helpful to see R as standing proxy for C in helping agents to choose B in pursuit of some ‘end’ E, who cares whether this is a matter of historical biological design?

‘Success semantics’ analyses representation in terms of conditions C required for behaviours B prompted by R to succeed in producing ends E—but without demanding that these structures result from past selection.

3. ‘Swampman’ drives the question home. A perfect replica of you coagulates by quantum chances in a steamy tropical swamp. Intuitively it seems that swampman can mentally represent many of the same things as you. Yet swampman lacks any selectional history. A counter-example to teleosemantics?

(To be honest, I don’t care too much about this. I’m more committed to the analysis common to teleosemantics and success semantics. Still surely it ought to possible to argue that *having a designer* is essential to the kind *watch* . . . And moreover the question raises issues of independent interest about kinds, essences, and rigid designation.)

4. The simplest teleosemantic answer to swampman is to override the intuition. Just as science can show us whales aren’t fish, it can show us swampman doesn’t represent. (Millikan, Neander, Papineau 1995.) We’ll do well to change our concept of representation.

5. But is this enough? Would it be all right to kill swampman for food? (Eilert Sundt-Ohlsen.) (Swampman would feel pain. But that doesn’t get teleosemanticists off the hook. Cows feel pain, but non-vegetarians say it’s ok to kill cows quickly even though they feel pain because they have no plans for the future . . . oh.)

6. Here’s a more nuanced teleosemantic response (Papineau ‘The Status of Teleosemantics, or How to Stop Worrying about Swampman’ 2001). We all have a folk *concept* of representation, involving criteria which are satisfied by swampman, but the actual *essence* of representation is historical design. We care about the folk criteria, which is why we wouldn’t eat swampman, but even so he doesn’t really represent, since he lacks the essential requirements.

It’s like water, H2O and XYZ. Our folk criteria are odourless, colourless, potable, but the essence is H2O. We care about the folk criteria—odourless, colourless, potable XYZ would satisfy our thirst ok—but XYZ would still lack the essential requirement for water.

So teleosemantics is no more discredited by a merely possible swampman than chemistry is discredited by a possible world where XYZ is the odourless, colourless, potable liquid.

7. Peter Schulte (‘Why Mental Content is not Like Water’ 2018) objects to the analogy. He says that it’s not enough for E to be the essence of folk kind K that we have a true a posteriori equation *the entity which satisfies folk criteria K = the entity which E*. (The states that satisfy the folk criteria for representation = the states that happen to have resulted from natural selection.) In addition, E must *explain* the criteria by which we recognize K. (The liquid that’s odourless, colourless . . . = the liquid made of H20.) The folk properties of *water* are explained by *H2O*. But the folk properties of *representation* aren’t similarly explained by *historically selected to guide behaviour*.

8. I agree with Schulte’s premise but not his conclusion. Let us say a *Kind* is any category whose instances share *many* properties. So chemical substances, biological taxa . . . are Kinds. For any Kind, we can expect the instances to have one property that explains why they share so many other properties. It’s natural to think of this super-explanatory property as the *essence* of the Kind. In the case of chemical substances, this will be their molecular structure.

So far I’m in accord with Schulte. Where he goes wrong, though, is in assuming essences have to be intrinsic. With biological species, if you ask me, the essence is common ancestry, not anything internal.

9. And then there are *functional* kinds. Consider *aerial insectivores* (swallows, martins, bats, dragonflies, . . .) They all share a range of properties (swooping ability, acute senses, sharp mouthparts). But here the super-explanatory essence isn’t some intrinsic property or common ancestry, but simply that they have been designed by the *same selectional pressures*.

10. I say that representation is a similar functional kind. Instances of representational systems share a range of features: a consumer that treats some internal R as proxy for some C in prompting behaviour B; a producer that gears R to the presence of C; and moreover does this robustly across different peripheral stimuli; and typically produces a range of Cs each with its own appropriate B; with learning fine-tuning the sensitivity of producer and consumer.

What explains the shared features of such systems is their common selective provenance. They have all been designed to optimally enable organisms to gear their behaviour to distal circumstances C.

11. So a certain kind of selectional history is the essence of representation after all, just as H2O is the essence of water. And so, as I said, teleosemantics is no more discredited by a merely possible swampman than chemistry is discredited by a merely possible odourless, colourless, potable XYZ.

12. In my original paper I was worried that my position hinged on the contentious semantic thesis that ‘belief’/’representation’ are rigid designators, not just actual world science. So I said I didn’t care about that, only that the folk role was realised by ‘selectional states’ in the actual world. Maybe ‘belief’ referred to non-selected folk-role-fillers in other worlds (eg swampman’s states) or even to the folk role property itself (with swampman again coming out as a believer).

13. Mistake. David Braddon-Mitchell and Frank Jackson (‘A Phyrric Victory for Teleonomy’ 2002) objected that my position was then no different from analytic functionalism. Analytic functionalists think of beliefs as those states that satisfy such-and-such folk requirements . . . In the actual world these are certain brain states (that happen to have been naturally selected). In discourse about other worlds analytic functionalist can then treat ‘belief’ rigidly (actualise the description), or flaccidly (referring to whichever states satisfy the folk description) or even the role property. My position seems no different, and nowhere ends up referring to some property with selection built in. At best it’s an interesting add-on.

14. I now think I allowed too much of the Canberra plan in setting up the issues. I shouldn’t have started by thinking of ‘belief’ as equivalent to ‘the state which satisfies folk description ϕ’ or (role version) ‘the state *of* satisfying folk description ϕ’. That’s not going to get the selection in.

There is another higher-order role state around. *The state of having some state that’s been designed by natural selection to gear behaviour to circumstances C.* That’s the essence of representation (the property that *explains* why representational systems display all their many characteristic features).

(How can this history-involving state explain behaviour? Well, representing per se never explains behaviour: the vehicle explains the bodily movements, and the truth-maker (if it’s there) explains the success.)

15. And we should take ‘belief’/‘representation’ simply to refer directly to this history-involving state, as ‘water’ refers directly to H2O. There’s no need to think of kind terms as picking out their referents by description, just as there’s no need to think this about proper names of people. Kinds are out there, pulled together by their underlying explanatory real essences. We might lock onto them via our acquaintance with their superficial ‘nominal essences’. But that’s no reason to equate their names with descriptions built solely out of those nominal features.

And so there’s no question but that ‘belief’/‘representation’ refers to the history-involving state, even when we are talking about other possible worlds, and therefore that swampman definitely would not *believe* or *represent,* even though he’s superficially like those of us who do.