What Do Philosophers Disagree about When They Disagree about Toad Representation?
Comments on Morrison's Structuralism about Representation

*Instead of asking "What is X?" one should focus on the roles one wants X to play and see what
can play the roles. This leads naturally to a sort of pluralism.* --- David Chalmers

**I. *Clarifying the Issue*: What is John Claiming about Representation in Simpler Systems that Others
Would Disagree with – for instance Neander (2017) and Shea (2018)?**

If apply Chalmers's (2011) "subscript gambit", find *agreement* among parties: all agree different theorists
"define-up" different naturalistic notions of representation: Representation$_{MILLIKAN}$, Representation$_{NEANDER}$,
Representation$_{MORRISON}$, *etc.* We can all agree:

> [1] *As Millikan understands "representation"*, toad represents$_{MILLIKAN}$ *nutritious thing.*
> [2] Toad represents$_{NEANDER}$ *elongated thing.*
> [3] Wild toad primarily represents$_{MORRISON}$ *same species* and secondarily represents$_{MORRISON}$ *worm.*
> [4] Captive toad primarily represents$_{MORRISON}$ *same shape* secondarily represents$_{MORRISON}$ *elongated thing, etc.*

So, what precisely is the locus of disagreement? John's answer: there's privileged, pretheoretic notion of
representation tied to explanation of *success* (Ramsey-Lewis role?): call it "S-Representation". And John's
unique claim – which other parties will reject – is substantive, informative identity-claim:

> **Morrison's Thesis about Toads**: S-Representation <u>really is</u> representation$_{MORRISON}$ - *not*
> representation$_{NEANDER}$, *Etc.* Consequently, toads S-Represents John's favored candidates, *not* Neander's,
> *not* Shea's, etc.

I still worry debate is unclear. Debates about "representation" can be clear and significant *when
concern a notion* ("C-representation") *def. tied to consciousness, belief-desire, etc.* But *John's target notion*
of "S-Representation" is totally unmoored from such person-level states. I worry he still hasn't provided it
with a *clear enough meaning* that it might *uniquely* refer to one of the candidate naturalistic relations over
the others. So the issue of "S-representation" in toads is indeterminate (Papineau's view in 1998, p.6) and
the right attitude is one of "pluralism". Also: if apply Sider's (2011, chap. 4) test, issue *not-substantive*.
  Best Response: the debate should be understood **relative explanatory utility** in cog. science of
different naturalistic notions of representation ("conceptual engineering"). Then John's unique claim –
locus of disagreement - becomes:

> **Better Explanation Claim:** Explanations of Toad (Bee, etc.) behavioral success in terms of
> representation$_{MORRISON}$ are "<u>better explanations</u>" than explanations in terms of representation$_{NEANDER}$, or
> representation$_{SHEA}$, etc.

In *Representation in Cognitive Science*, Shea seems to understand debate as concerning relative
explanatory utility. Shea would presumably *disagree* with Better Explanation: Shea would say that *his*
favored naturalistic notion - representation*$_{SHEA}$* - provides "better" explanations of behavioral success in
toads and bees than do other naturalistic notions of representation, including John's (28-31, **160**)
  But doesn't make much progress in clarifying the debate. Notion of "goodness of explanation" *itself*
notoriously murky. *If* John accepts my suggestion, I invite him to address the question: in *precisely what
ways* are explanations of Toad behavioral success in terms of representation$_{MORRISON}$ "better than"
explanations in terms of representation$_{NEANDER}$, etc. What's wrong with *explanatory pluralism: all* these
naturalistic notions of representation provide pretty good explanations of behavioral success in toads and
bees, and it's not the case that one of them *uniquely* provides the "best" explanations?[1]

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[1] Some might respond: it's methodologically sensible to start with a first debate about "representation" in simpler creatures like toads and bees,
and then move on to more complex case of humans. For instance, some (Tye, Dretske, Fodor) make building-block assumption: "conscious

2. Second Question: What's the Argument for John's Structuralist Theory of S-Representation in Simpler Creatures?

We just saw that, on best interpretation, John's distinctive structuralist theory is equivalent to:

> **Better Explanation Claim:** Explanations of toads' and bees' behavioral success in terms of representation$_{MORRISON}$ are "better explanations" than explanations in terms of representation$_{NEANDER}$, etc.

If this interpretation correct, then this is where the debate should focus. *Arguments for John's theory must be arguments for the Better Explanation Claim.* But in *precisely what ways* are explanations of Toad behavioral success in terms of John's structuralist notion "better than" explanation in terms of other naturalistic notions of representation, e. g. the *historical notions* of Neander (2017) and Shea (2018).

Against historical theories, John mentions (i) brain parts are *re-purposed* and (ii) *"advantageous mutations"* (Pietroski's Kimus?).

> **Argument from Cases:** In *these* cases, John's structuralist notion of representation provides better explanations of successful behavior than Shea and Neander's historical notions.

I invite John to say more. Shea (2018) considers *range* of case-studies and argues that overall his historical notion of representation provides best explanations of successful behavior. Supporting John's theory = showing, to the contrary, that representation$_{MORRISON}$ provides *better* explanation of successful behavior.

> **Argument from Color Representation.** In a series of papers: color representation = structuralist representation$_{MORRISON}$. If it is right, Toad and Bee representation = structuralist representation$_{MORRISON}$

But problems. Imagine Miriam released from black-white room and sees red tomato for first time. Given minimal intentionalism, a notion of representation, C-representation, such that Miriam C-represents yellow. But, because John's structuralist theory *gradualist*, it implies: initially Miriam's color experience doesn't yet represent$_{MORRISON}$ *anything*.[2] Therefore, C-representation ≠ representation$_{MORRISON}$. (Given internalism, BIV makes the same argument.) Same argument applies to Miriam's initial color *belief* about tomato. (In fact, contents of our mature beliefs don't seem "structural".)

(Structuralism also a bit problematic when taken as a theory of *S-Representation* of color (separable from conscious experience), rather than C-representation. If Miriam doesn't initially represent$_{MORRISON}$ anything about tomato, representation$_{MORRISON}$ cannot explain her successful behavior.)

A final point. John - like Shea, Neander - reductive, naturalist theory. Many: we can't give such a theory of anything: Stich 1992 on "grooming behavior". Why *need* such a theory of representation? Burge:

> I believe that trying to reduce representation to something more "naturalistically acceptable" is probably pointless and hopeless (298). I will proceed on the assumption that notions of perception and representation have a place in scientific explanation. They do not need reduction to be scientifically acceptable. They are irreducible notions. *Origins.* Shea, 175

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representation" = simple representation + meeting further (access/role) condition. But this doesn't address my worry. It doesn't tell me *how to understand* the "first debate". Also, btw, I think John must reject building-block assumption. For he thinks that BIV duplicate has same conscious states as you, and similar beliefs, but BIV doesn't represent$_{MORRISON}$ *anything*. If so, he must *deny* that conscious representation, belief representation, etc. = representation$_{MORRISON}$ + meeting some further condition. Likewise Shea, p. 169, denies "building block" approach: because of Swampman, he says *nothing like* his historical account of "simple representation" applies to conscious, person-level representation, which he says is *ahistorical*: "my view does not imply that a swamp human would lack contentful conscious states or thoughts . . . fixed *ahistorically*."

[2] Here is John on gradualism in his 2018: "Phenomenal characters are like meaningless symbols that become meaningful over time . . . **When Miriam first perceives an object as [redder] than another, her perceptions won't match any particular relation, so she won't perceive [represent] any particular relation.**"