Shoemaker, “The Inverted Spectrum”

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44.0 The Inverted Spectrum

This paper is long and complicated, but the most important part is just the recounting of how the inverted spectrum threatens functionalism:

The inverted spectrum hypothesis can be traced back to Locke, and appears in the work of Wittgenstein, as well as others.

The basic idea is to suppose that there were someone else (call him “Invert”) who experienced the colors of the world in exactly the opposite way you do. When you experience a ripe tomato, you experience it as having a certain characteristic color quality, which in English, we call ‘red’. When you experience well-watered lawns, you experience them as having a certain characteristic quality, which in English, we call ‘green’. Suppose that Invert was inverted with respect to you, so that when he experienced well-watered lawns, he experienced them as having the same characteristic quality you experience as attaching to ripe tomatoes (and vice versa). Could we detect the difference in functional tests?

44.1 Terminology:

The case I just described is a case of INTER-Subjective inversion: two people inverted w.r.t. each other.

Shoemaker’s argument is that INTRA-Subjective inversion is more plausible: one perso inverted w.r.t. to his experiences at a previous time.

Shoemaker points out that if this were the only inversion in our color system, it would come out in functional tests – show Invert something red, something pink, and something bluish-green, and ask him to order them by similarity. He would group the red thing with the bluish-green thing, and hence be detected as an invert.

The same can be said for Intrasubjective inversion: suppose that Fred says ‘tomatos and lawns are inverted w.r.t. how they looked yesterday’. How could we tell if it was inversion or a memory fault that was causing him to make such claims? (Recall that Dennett blamed much of our ‘qualia’ intuitions on memory faults).

Here’s Shoemaker’s suggestion: rotate the color wheel slightly, so that the primary hue axis is on binary hues (See Hardin notes for a definition). In this case, we can ask ‘does orange look like a mixture of red and yellow?’ The subject would respond ‘no’ - red looks like a mixture of orange and purple. The inversion is detectable.

But keep going, until a full 180° inversion has been completed. The inversion is no longer detectable. But we know that it is a memory fault, as we detected each and every step along the way.

44.2 What about the ‘slippery slope’ to skepticism?

If we allow for spectrum inversion, we end up not knowing what people mean by ‘that looks red to me’.

Response: ‘looks red’ is ambiguous. If it means ‘has such and such a characteristic quality’, then yes, we do not know.
But if it means (as is surely reasonable) ‘looks like prototypical samples of things to which we refer with the word ‘red’’, then we do know what it means.

44.3 Empirical Objection (i.e. Hardin’s objection)

Response: don’t really care - it is left open.

The problem here is one of metaphysics, which means that if qualia are essentially functional, then they must be in every metaphysically possible world. The empirical objection may rule out a possibility in the actual world, but so long as it epistemically or metaphysically possible, the functionalist still has a problem.

45.0 Shoemaker’s account

‘Qualia’ refers to those features of sensory states in virtue of which they stand to one another in relationships of qualitative similarity and difference.

And qualitative similarity and difference are functionally analyzable thus: given qualia Q1 and Q2, Q1 and Q2 are similar if it is the case that when Q1 and Q2 characterize difference experiences belonging to one and the same person, this tends to have certain similar effects on that person’s beliefs and behavior. And if Q1 and Q2 are states in different people, those states will have similar effects on the different people’s beliefs and behaviors.

Now, assume that only 180° inversion is possible (Blue <-> yellow / red <-> green). Suppose that Q-BY is the qualia of blue in me, and Q-YB is the qualia of yellow in Invert.

It is not possible to give a purely functional analysis of either Q-BY or Q-YB, but if the notion of ‘quale’ can be defined functionally (as above), we can give a functional definition of the pair of qualia Q-BY and Q-YB thus: “Pain of qualia such that, at any given time, one member of that pair characterizes perceptions of blue while the other characterizes perceptions of yellow”. (652)

That’s the heart of the matter: Shoemaker goes on to make some more points and reject possible objections, but this is the core: one can give a functional analysis of what it is to be a qualia, or what it is to be a pair of qualia, even if the inverted spectrum is possible. What one cannot give a functional analysis of, if the inverted spectrum is possible, is what it is to be any particular qualia.