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RESPONSE-DEPENDENCE WITHOUT TEARS

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We believe that it is both unsurprising and untroubling that competence with the semantically basic terms or concepts in our language should be response-dependent. Our aim in this paper is to support that belief by elaborating on the meaning of response-dependence, by presenting a case for the response-dependence of our competence with basic terms, and by neutralising some myths about such response-dependence.

The paper is in six sections. The first gives an introduction to the notion of response-dependence. The second shows why response-dependent terms are subject, as is commonly remarked, to a certain *a priori* biconditional. The third offers a relatively simple argument for the response-dependence of basic terms. And then the remaining sections develop a critique of three assumptions—if you like, three myths—that might otherwise make it difficult to believe in such global response-dependence.

1. Introducing Response-Dependence

Among the terms or concepts that a person uses to characterise the world, we can distinguish between those that are introduced to the subject wholly by definitions that employ words already understood, and those that are not introduced in that way. Those that are not introduced in that way may presuppose a network of other terms, and they may be partly defined by their place in that network. But their introduction—whether this be one by one, or in packages—must directly link the subject with items in the perceived world. Ultimately the mastery of these terms involves ostension: it is accomplished by directing the learner's attention to things that are experientially available. We shall describe the terms as semantically basic.

Speakers may vary among themselves, and each may vary across times, in the matter of which terms or concepts are basic for them in this sense, which

defined. For the ordinary person every colour term may be basic, for example, whereas for the colour-blind person one or another term may be defined. And this may be so, although each uses the term in the same way and possesses the same concept: the one person will possess it in the standard, canonical fashion, the other parasitically. But no matter how the speakers of a language vary in this way—and there are certainly limits on the variation possible—it must be true of each that among the terms and concepts they employ, not all are wholly defined in other words; some must be semantically primitive. We shall assume in what follows that with many terms in any language there is a good deal of convergence on which are basic, at least among ordinary users: for ordinary people who are not colour-blind, for example, we shall assume that the colour terms are all basic. But nothing much hangs on this assumption; it serves for convenience only.

It will be granted on all sides that mastery of definitionally introduced terms or concepts involves having certain beliefs: specifically, the beliefs that link the referents of those terms, taken as such, to the referents of others. In that sense mastery of defined terms is belief-dependent. But what about the mastery of basic terms? Is it belief-dependent in the same way? Or can basic terms come to be mastered, basic concepts come to be possessed, without the learner thereby coming to entertain any particular beliefs about the referents of those terms?

Suppose that a certain term in a community's vocabulary is basic, at least for ordinary users. Mastery of such a basic term will be belief-dependent, plausibly, so far as ordinary competence in its use—ordinary possession of the concept associated—requires the speaker to be disposed to form certain beliefs in response to the presence of the referent (or of items that approximate the referent: see section 6). When a term is belief-dependently mastered in this way, then we can also speak of its being response-dependently mastered or of its being response-dependent. We argue in section 3 that not only can basic terms be belief-dependent and, more specifically, response-dependent; the best account of how they are learned ensures their response-dependence. We borrow the term 'response-dependent' from Mark Johnston (1989). While there are sharp differences between his views and ours, there is enough continuity to make it reasonable to adopt his terminology; more on this later.

Let us assume that the term 'red' is semantically basic and that it refers to a perfectly objective property such as the spectral reflectance of certain surfaces. Even supposing that it refers to such a property, our ordinary competence with this term involves the possession of a variety of beliefs in virtue of which it is plausible to describe the term or concept as response-dependent. When we are introduced to the term 'red', we learn that we can generally rely on how things seem in determining whether it applies or not: we can rely on the beliefs that things spontaneously elicit in us. We all quickly find that there are occasional differences across times and persons in regard to applications of the term. And then we are taught that certain obstacles or limitations can warp

our responses, leading us to believe that a certain non-red thing is red or a certain red thing not red; we are taught that 'red' designates a property that does not invariably go with appearance, even if it typically does so (see Pettit 1999). We come to believe of anything we encounter that it is red if it seems red and there is no evidence of an obstacle or limitation at work in warping that appearance; and we come to believe that it is not red if it seems non-red and, again, there is no evidence of obstacle or limitation.

We can readily generalise the pattern. Take any basic term or concept, 'T', that is used in common amongst a community of speakers to refer to something, T, where T may be a perfectly objective entity: like a spectral reflectance, it may be the sort of thing that can exist in the absence of the community and in the absence of any thinking creatures. 'T' will be response-dependent just in case an ordinary speaker's competence in the use of the term goes hand in hand with their believing of anything they encounter that it is T if it seems T and there is no evidence of unfavourable influences; and with their believing that it is not T if it seems non-T and there is no evidence of unfavourable influences.

Something's seeming red to the ordinary person will involve a sensation of redness, however sensations are understood. But it is worth noting, of course, that the seemings or appearances that response-dependent terms generally require may not involve sensations of this kind; the responses in question, as indeed we shall see in section 5, need not have the character of conscious, sensory representations. They may have no presence for the speaker other than that of a primitive disposition to see this or that item as suitably similar to paradigms of T and to apply the word 'T' to them in expression of the similarity registered.

The obstacles and limitations that may put a person's sensation of redness askew, giving them reason not to authorise it, are fairly obvious. Obstacles are illustrated by colour-glasses and sodium lighting, limitations by colour-blindness. But it is also worth noting that with other terms that are response-dependent in the general way, the obstacles and limitations may be very different. If a term 'T' is partly defined in terms of connections with other terms, be they response-dependent or not—in this respect 'red' looks particularly simple—then ignorance or error about the application of those other terms in a given instance may constitute an important limitation for the subject.

Our account makes response-dependent terms belief-dependent in a characteristic, case-by-case way; competence goes with a set of case-by-case beliefs—a belief about this encountered object, a belief about that encountered object, and so on—together with a disposition to form other such beliefs. But does it entail a more general sort of belief-dependence? Does it entail the general belief, for the response-dependent term, 'T', that among the things encountered by speakers those and only those that seem T under favourable conditions, C, are T and deserve to be called 'T'? Does our account mean that people who master the term are committed to this general principle?

We can agree that our account does commit users of the term to this principle, provided it is clear that those who enjoy ordinary competence with the term may only believe the principle in question in a distinctively tacit or practical manner. They need not have independent terms for the different elements in the principle; they may have no word for 'favourable conditions, C', for example. They may believe the principle only in the sense that they treat it as true, rather than explicitly thinking that it is true, and only in the sense that they treat it as true on a case-by-case basis, not under the aspect of a general truth: they believe it, as used to be said, *in sensu diviso*, not *in sensu composito*. The principle will serve as a rule of reasoning that governs the transitions they make from appearance—something's seeming to be T—to assumption—that something is T—and to move from assumption to the expectation of appearance (Pettit 1998a). To go to a familiar analogy, they will believe it in the way in which non-logicians believe *modus ponens*.

So much for response-dependently mastered basic terms or concepts, and so much for how their response-dependence amounts to a variety of belief-dependence. Someone who thinks that certain basic terms can be response-independent rather than response-dependent will have to say that no connection is necessary between a speaker's using a term with an appropriate semantic value, on the one hand, and the speaker's having any particular beliefs or being disposed to form any particular beliefs on the other. Semantic competence with a basic term is attainable, so it will be claimed, without epistemic commitment. Thus there is no general belief that an ordinary speaker must form, however practical in character, in order to master a basic term and come to possess a basic concept. Indeed, mastering the term need not involve forming any such belief, even one that is idiosyncratic and unshared.

How could a response-independent linkage—if you like, an epistemically uncommitted linkage—get established between someone's use of a term and the semantic value of that term: the property or other entity to which it refers? What will presumably be required, at least under a naturalistic account, is a causal or contextual connection that links the person to the property but without giving them any judgmental dispositions. The connection will fix what the person shall refer to by the term but without necessarily giving rise to any beliefs. It will establish the semantic value of the term. And then it will die. It will have no effects—certainly it need have no effects—that impact on the speaker's disposition to apply the term in other cases.

2. The Response-Dependent Biconditional

When a basic term or concept is response-dependent—when it is mastered in the manner sketched in the last section—that will entitle us to assert a certain *a priori* biconditional. Assume that 'red' is response-dependent in this way, for example. It will then be *a priori* that the English term 'red' applies to

something if and only if it is such as to evoke a suitable response—such as to seem red—among ordinary speakers of English under favourable conditions: that is, in the absence of obstacles and limitations. Imagine that the actual world where speakers apply the term 'red' might be now this world, now that, now another, without those differences showing up experientially. No matter which world plays the role of the actual world, and no matter which property is picked out by 'red', English speakers will be guided in their use of the term by whatever it is that seems red to them, under presumptively favourable conditions, in that world. And that is just to say that it is *a priori* that their use of the term 'red' will be designed to track the way things seem under such conditions (Stalnaker 1978).

This *a priori* linkage will be reminiscent of the biconditional employed in Mark Johnston's (1989, 145) original definition of response-dependence and that explains our holding onto his word (see too Johnston 1993, 121–26; Wright 1993, 77–82). But there is an important difference between the biconditional to which we are committed and that which he employs. For us an English term 'T' will be response-dependent just so far as it is *a priori* that 'T' serves to pick out a property (or whatever) in something if and only if that thing would seem T under certain independent, favourable specifications. For Johnston the term is response-dependent just so far as it is *a priori* that something is T if and only if it is such as to seem T under those specifications.

The difference between these biconditionals comes out in the fact that it is possible to be committed to ours without having reason to assert his; ours is a more cautious formulation. Suppose that T is a certain objective property, as redness under our earlier supposition is a certain spectral reflectance. The fact that 'T' serves to pick out a property in something makes it *a priori* that when conditions are favourable that thing should seem T to relevant speakers; that is what is required, under the approach that attracts us, for the term to get established among those speakers as referring to T. But the fact that the thing is T does not support the same *a priori* connection. For something may be T in a certain world—it may have the property picked out in our usage by 'T'—without its being *a priori* that there are independently specifiable conditions such that observers in those conditions track that property.

The *a priori* implication of 'T' serves to pick out a property in something' expresses one of the conditions for the possibility that 'T', a semantically basic term, should get established among speakers of the relevant language as having a certain referent. 'T' can attract a semantic value of the appropriate kind, so the thought goes, only if there are certain conditions under which people's disposition to use the term is authoritative. But there is no corresponding *a priori* implication attaching to 'something is T'. Why should it be *a priori* that just because there is a possible world where something has a property that we happen to designate with a semantically basic term—a property that may be as objective as a spectral reflectance—there must be observers specifiable, at that world or some other, who are equipped and positioned to track it?

If anything of the kind is thought to hold, that must be because it is an *a priori* implication of a fact presupposed by our reporting the fact that something is T: viz., that 'T' picks out a property for us. But the object envisaged would have been T, even if we had never gotten around to reporting it, so that it could have been T in the absence of any observers whose disposition to use 'T' is authoritative in favourable conditions.

It may be *a priori*, then, that given the denominability of T—given its accessibility to us as something that we can ascribe or pick out by the English term 'T'—something is T if and only if it is such as to seem T under independent, favourable specifications (Pettit 1998b). It may be *a priori* that something is denominably T, as we can put it, if and only if it is such as to seem T under independent, favourable specifications. But it will not thereby be *a priori*, for any such response-dependent term 'T', that something is T if and only if it is such as to seem T under favourable specifications.¹

In our usage, to sum up this line of thought, a response-dependent term or concept is one whose ordinary possession-conditions or mastery-conditions involve the disposition to respond in a certain way to the corresponding referent (cf Peacocke 1992). That is why there is an *a priori* connection between 'T's applying rightly to something in our linguistic community and that thing's being apt to produce the T-response in us under conditions that count for independent reasons as favourable. In Johnston's usage, a response-dependent term or concept is conceived in a different mould. We surmise that he takes the response-dependence of a term or concept to imply that it itself represents the referent as being connected with the relevant response; it more or less explicitly relates the referent to the response (see Pettit 1991, 598). That would explain why there is said to be an *a priori* connection between something's actually being T and that thing's being apt to produce the T-response. More on this in section 4 below.

Arguing for any *a priori* connection between being and seeming, even a connection that supposes denominability, will worry some people. They may think that it compromises the reality of the world putatively addressed or the fallibility of our access to it. But we stress that for that all we have said, neither realism nor fallibilism is in danger. The response-dependent terms and concepts we use can still refer to quite objective properties, as we have mentioned. And our access to those properties remains quite fallible. That a term 'T' behaves response-dependently does not guarantee that there is a corresponding T-property, for observers may not prove to converge on any property of the kind envisaged, under conditions that count independently as favourable. And while such observers, if they do converge, cannot be wrong in their use of the term under favourable conditions—they may of course be wrong in the use of non-basic terms—they cannot ever rule out the possibility that their current conditions are unfavourable; they cannot ever be sure that their conditions are unaffected by a factor that they will later come to see, say in the light of resolving further discrepancies, as perturbing or limiting.²

3. A Simple Case for the Response-Dependence of Basic Terms or Concepts

One of us has presented elsewhere an argument from the possibility of rule-following to the response-dependent character of semantically basic terms (Pettit 1990, 1991, 1993). But there is a case for the response-dependent character of basic terms that does not have to presuppose the possibility of rule-following; it constitutes only a first and relatively uncontroversial part of the larger argument. We present that simpler case here.

Suppose that someone is to be initiated in the use of a basic term 'T'. And let us assume that this term is a simple predicate, as some basic terms certainly must be. The term cannot be introduced by definition, being semantically fundamental, and so the speaker must be made aware of its semantic value—must learn to master the term—on the basis of ostension or something like ostension. Those of us who introduce the term must get the person to grasp the property that it denotes and ascribes by presenting exemplars of its application and non-application, ensuring that the circumstances are especially propitious for making the referent-property salient.

There is a familiar difficulty that is going to dog such an ostensive enterprise, however. This is that any set of exemplars, no matter how cunningly constructed, will be finite in extension and will instantiate an infinite variety of properties. They may instantiate the property that we wish our learner to associate with 'T' but they will instantiate much else besides. Let the exemplars be meant as examples of games, for example. The trouble will be that any finite number of games will be instances, not just of the property of being a game, but also of all those other properties—those infinite, unnamed properties—that just happen to coincide with game-ness in the examples on hand.

This difficulty raises a telling question. Assume that our learner succeeds in identifying the desired property as the semantic value of the term 'T'. Assume that things change with this person in such a way that we can now say that 'T' in their mouth—like 'T' in our mouths—is used to ascribe such and such a property. The question raised is this. What can make it the case on the side of the speaker that it is indeed that property, and not this or that other property, co-instantiated in the examples, that they associate with the term: that it is indeed that property, and not one of those others, that impacts upon them?

What has to happen is that that property comes to be privileged among the coinstantiated set by the fact that it is, as we say, salient or striking. It is the property such that the instances present themselves as instances of that property—or at least of a relatively narrow set to which it belongs—and not of any other. The instances will have a distinctive effect, then, on the subject. They will lead the subject to believe that those instances have that property—this belief will show up in the subject's discriminatory and classificatory dispositions—and to use the term in question, 'T', in order to express that belief. The subject will go on to believe that other things are T just so far as other

things have that same effect, where he or she finds no reason to think that the effect is the product of some irrelevant influence.

The plausibility of these claims becomes apparent when we ask about what we would say of the person if the instances had a different effect. Suppose that the instances presented are all S, as we put it, as well as being all T. And suppose that they led the subject generally to apply the term 'T', not to things that are T, but to things that are S and only to things that are S. Surely in that case we would take it that the person had—wrongly, as we will see it—associated the term 'T' not with what we describe as T but with what we describe as S.

None of this should be surprising. Belief is a state that is designed to fit the facts: a belief that p would not play its characteristic role in our mental life if it was not suitably responsive, at least under favourable conditions, to such inputs as the perception that p or the perception that not p (Anscombe 1957, Smith 1987). Learning the semantic value of a term like 'T' is learning to use it in order to express how we take things in a certain respect to be. But it is wholly unsurprising, then, that learning its semantic value goes hand in hand with being disposed to apply the term in some circumstances and not in others: with being disposed to apply it in those cases where we take things to conform to the required pattern and not to apply it in those cases where we do not.

To say that the appearance of a suitable extrapolative disposition is necessary for a learner to associate 'T' with the T-property, and not with anything coninstantiated in the ostensive exemplars, is just to embrace a response-dependent account of how the person gets to refer to T. That account postulates precisely the sort of extrapolative disposition required. It maintains that under the impact of the ostensive exemplars the learner will learn what it is for something to seem T and will become disposed to infer being T from seeming T, and seeming T from being T, at least under what are taken to be favourable specifications.

It transpires, then, that a necessary condition for someone to get to refer to a particular property by means of a semantically basic term is that their use of the term should be response-dependent in character. If the term is not response-dependent—specifically, if it is not associated with a guiding belief—then there is no explaining what can make it the case that it refers to the property in question, and not to any old property that happens to be coninstantiated in the exemplars by which it is introduced.

We describe this as a simple case for the response-dependence of semantically basic terms. What makes it simple is that the argument says nothing about how other more complex problems are solved. Those other difficulties are elements in the full set of rule-following problems. One is that even if the extrapolative disposition tracks the appropriate property across the full range of cases accessible to the speaker, or indeed the speaker's community, still there are bound to be a number of abstractly distinguishable properties that are consistent with the operation of that disposition: they will be co-instantiated, not only in the ostensive exemplars, but in every case that comes up for judgment (see Pettit 1993, *postscript*). And another problem is that even if it is construed as a

practical form of belief, instantiating an extrapolative disposition does not amount in itself to trying to be faithful to a rule for the use of the term; more needs to be said if a response-dependent story is to be built up into an account that makes sense of such an intentional, norm-governed enterprise (see Pettit 1993, Ch.2).

The problem which we invoke response-dependence to solve is close to what two sympathisers of response-independence, Michael Devitt and Kim Sterelny (1987, Chs 4 and 5), describe as a 'qua-problem' that faces their approach. The problem is that any exemplars whereby a term is to be learned will be capable of being taken in any of a number of ways: qua instances of the desired property, for sure, but also qua instances of any of an infinite variety of other properties. Without doing anything to resolve all the rule-following problems, we believe that the qua-problem already gives us reason to espouse a response-dependent line on basic terms.

We believe this, in particular, because of believing that the response-independent theory has no satisfactory answer to the question of what makes it the case that the learner associates the desired property, and not a clearly distinct property that is co-instantiated in the exemplars, with the term introduced. Defenders of that line may say that the desired property is the referent of the term because it is that property and not any of the co-instantiated partners that causally or contextually impacts on the speaker. But this is 'Hail Mary' semantics. Under a response-independent account, there is nothing to make it the case that it is one property and not a co-instantiated partner that is responsible for the impact. According to such an account the impact secures reference and then it dies; it leaves no further trace: in particular, it does not leave the trace of a distinctive extrapolative disposition. In the absence of any such trace, there is nothing to make it the case that the term introduced refers to the desired property, and not to something co-instantiated.³

So much for the case in favour of taking all semantically basic terms—all terms that involve some direct experiential anchoring—to be response-dependent. We want to show in the sections following that we can hold that basic terms are all response-dependent—response-dependence is in that sense global—without forcing them into a procrustean mould. Response-dependence does not constrain basic terms or concepts in a severe manner; it is consistent with enormous variation.

4. Response-Dependent Concepts Are Not All Response-Relational

It may be tempting to illustrate the category of response-dependent concepts by reference to words like 'nauseating', 'aromatic', and 'comfortable'. For it is manifest that we normally learn to apply such terms in virtue of experiencing nausea, pleasant smells and comfort. And it is unsurprising that there should be an *a priori* connection between something's being nauseating and its being such as to induce nausea, at least when things are normal.

Terms or concepts like 'nauseating' refer, plausibly, to anthropocentric dispositions: to dispositions in things to evoke one or another response in human beings. When we use such a term what we have in mind is a disposition of a kind with fragility or solubility. The fragility of an object is the higher-level role property of having a lower-level, realiser property that makes it shatter under certain impacts (see Jackson, Pargetter, Prior 1982). And equally the nauseating or aromatic or comfortable feature of something can be plausibly cast as its higher-level, role property of having a lower-level, realiser property that produces nausea, or a pleasant smell, or a feeling of comfort.

In a more recent piece than that in which he defines 'response-dependence', Mark Johnston (1993, 103–04) introduces the word 'response-dispositional' to apply, as we understand him, to terms or concepts that refer to such anthropocentric dispositions. But it should be clear that response-dependent terms or concepts, on our account, need not be response-dispositional in this sense. For all that we have said, the response-dependent term or concept need not refer to a higher-level role property—the property of having a property that produces that response—but to the lower-level realiser property: the property that implements the role by actually producing that response.

Consistently with being response-dependent, for example, it should be clear that the concept of redness may be a concept, not of the property of having a property that makes things look red under suitable conditions, but of the property that has that effect. It may be a concept of realiser-redness, not of role-redness. It may be a concept of that very property in surfaces that may be otherwise identified, say, as a spectral reflectance of a certain kind.

In arguing that semantically basic terms and concepts are response-dependently learned, indeed, we explicitly took for granted a story under which they are not response-dispositional. This is how that story goes. People experience a certain response, say the sensation of redness, in the presence of certain things. This response means that they see the things in question as similar: they all look red. They learn to use the term 'red' of things that display that similarity, then, or at least of things that display that similarity in conditions that they have no reason to question: they do not give rise, for example, to discrepancies across times or subjects in the application of the term. So far as they are concerned, then, redness just is that property, as they will think of it, the one that saliently binds those things into a single kind.⁴ The term 'red' refers to that common property, under this story, and not to the higher-order property of having a lower-order property that evokes appearances of similarity: not to the disposition to look red. Ordinary people may not even reflect on the fact that red things tend to look red—they may not even have the concept of a sensation of redness—and may not associate redness with the disposition to look red; they will typically think of it as a categorical property. Which categorical property? The most straightforward answer is: the property that realises the disposition (but see McGinn 1996).

We saw in the first section that in his original definition of 'response-dependence' Johnston focussed on terms or concepts that more or less explicitly relate the properties (or whatever) to which they refer to human responses: they represent their referents as items that essentially involve a connection with the responses in question. Response-dispositional concepts are response-relational in this sense: directing us to anthropocentric dispositions, they represent their referents as inherently involving human responses. Thus it should be no surprise to find that, consistently with his original focus, Johnston concentrates on such terms or concepts. It should be no surprise that he defends a stronger biconditional than we do. And it should be no surprise that response-dependent terms or concepts, as we conceive of them, are a distinct category.

We began this section by noting that terms like 'aromatic', 'nauseating' and 'comfortable' are plausibly taken to ascribe higher-order dispositions, so that they are response-dispositional in Johnston's sense. But there is another account of such terms, according to which they refer to realiser properties, not role properties, and are distinguished by the fact that they pick out those realiser properties under the explicit aspect of playing an anthropocentric role or grounding an anthropocentric disposition. On this account to say that a substance is nauseating is to ascribe a non-role property to the substance but to represent that property under the aspect of its producing nausea in humans. Terms like 'nauseating' are still response-relational, on this approach, for they represent the things to which they apply as connected with human responses. Even if 'nauseating' or 'comfortable' does not ascribe an anthropocentric disposition, it does ascribe, and ascribe as such, the property of grounding an anthropocentric disposition.

As response-dependent terms need not be response-relational through referring to anthropocentric dispositions, so they need not be response-relational in this other way either. That a term is response-dependent implies that it picks out a certain referent in virtue of that referent's having a suitable effect on human beings under favourable conditions. But a term might pick out a referent in virtue of its having certain effects without picking it out under the aspect of having those effects. Suppose that the term is a predicate. It may be that the predicate ascribes a certain property in virtue of the responses that that property typically evokes but it need not be that it ascribes the property under the aspect of evoking such responses; it need not be that when we use that term, to put the matter intuitively, we speak in part about the bearer of the property and in part about its connection with us human beings. We may do that when we talk about how aromatic or nauseating something is but we need not do it when we use response-dependent terms in general.

Do we do this when we use the predicate 'red' of things? On some accounts, talking about the redness of things is partly talking about the connections between those things and us sentient creatures; this is the sort of account, though in the response-dispositional key, that Johnston defends. But such accounts may be excessively influenced by an awareness of the scientific facts

about colour. We suggest that for ordinary people, to say that something is red is to ascribe a certain salient objective property without any intention, let alone any commonly recognised intention, to comment on the effects that it is liable to have on creatures like us human beings. This is supported by the fact that intuitively there is a contrast in this respect between saying that something is red and saying that it is nauseating.

In conclusion, a query. If response-relational concepts represent their referents as properties giving rise to such and such responses—and this, whether they are response-dispositional or not—can't we think of them as concepts the mastery of which requires, not having such responses, but rather having the concepts of those responses? Can't we think of the concepts as being introduced by a definition that employs the concept of the response—*itself* no doubt a response-dependent concept—so that 'nauseating', for example, is defined as referring to the disposition to produce nausea in normal people, where we already have a concept of such a state? And doesn't that mean that the concept of the nauseating is not strictly response-dependent in anyone's usage: mastering it does not in itself presuppose the ability to have the response, only the ability to understand the concept of nausea (which may itself, being response-dependent, presuppose the ability to have the response)? For all that has been said, people might understand nausea as a state that comes and goes, often in a wholly random way, and might then learn to use 'nauseating' of those things that are found to produce the state reliably within them.

There is no problem in recognising that a concept that has to be mastered response-dependently by some people, like the concept 'red', will be mastered in a parasitic, theoretical way by others: this, in the way 'red' will be mastered by colour-blind people. But the suggestion now is that response-dispositional concepts, being definable in terms of other concepts—including the no doubt response-dependent concept of the response—do not themselves have to be mastered response-dependently by anyone. They are not semantically basic terms in anyone's usage.

We do not think that this suggestion is very plausible. The most likely story in the sorts of examples given is that we learn to master the concept of the property and the concept of the response—the concept of nausea and the concept of the nauseating—at one and the same time. Certainly this is a real possibility. And so far as that possibility is realised, the mastery of response-dispositional concepts will presuppose in itself the ability to have the responses in question, not just to conceptualise them, so that the concepts will count as response-dependent. Some response-relational concepts may be theoretical in character but we are happy to think that many of them are response-dependent in our sense.

To sum up, then, we concede that response-relational concepts, understood in either of the two ways distinguished, may often be response-dependent in our sense and so that some basic concepts may be response-relational. But we insist that not all response-dependent concepts, as we understand the category,

are response-relational. A concept's being response-dependent—a concept's being response-dependently possessed or mastered—is a distinct and indeed more interesting feature.

5. Response-Dependent Concepts are Not All Response-Specific

The example of 'red' has served us quite well up to this point. It illustrates the general category of response-dependent terms or concepts and it shows how they can be response-dependent without being response-relational. But the claim that semantically basic terms or concepts are response-dependent may generate many misgivings so far as a colour term of that kind is presented as the lone example of the category. For the concept of redness is not just response-dependent; it is also, as we shall say, response-specific. And response-dependent terms or concepts need not generally be response-specific in this sense. So, at any rate, we shall argue.

Like any concept, the concept of redness is used to represent things as being of a certain kind or having a certain property. But the kind that it represents things as being need only be associated by those who possess it with the production of the relevant response; it may have little significance for them other than as the kind that makes things look red under favourable specifications. Despite not being response-relational, then, the concept may have a very specific connection to the response in question. It may be the concept of a kind that need have no more effects, according to those who master and employ the term, than its effect in making things look red under favourable conditions. If surface redness is a certain spectral reflectance and if that reflectance is associated with effects other than making things look red under such specifications, then that will come as a discovery, not as an inherently expected sort of result, among those who possess the concept.

The response-specificity of the concept of redness comes out in how we would naturally introduce a congenitally blind person to the concept. We cannot make the property of redness salient to such a blind person in the way that we can make it salient for someone sighted. But we can present it to them as precisely the (let us assume, realiser) property that makes things look red—we will have to provide some background explanation on the nature of colour sensation—in conditions and among observers that count by people's lights as favourable.

Not all putatively basic concepts display this response-specific character. Presumably the concept of something's being straight or flat or regular in shape may be semantically primitive, as may the concept of something's being, relative to certain conditions and impacts, soft or hard. And yet it is clear that we associate the kind that such a concept represents things as being with effects that far outrun the effect of eliciting a certain response in us; it has a wider role than that of affecting human beings (cf Wright 1992). The shape properties in question have effects on how things line up against each other, not just on how

they impact on us. And the property of softness or hardness has effects on how things affect other bodies, not just on how they affect ours.

This lack of response-specificity comes out in the fact that were we to try to introduce one of these concepts to someone lacking the capacity for the relevant response, it would be downright misleading to employ the sort of approach that we use with the blind person in introducing a colour concept. We would not try to characterise a response like looking or feeling straight or flat or hard, in the way that we try to characterise colour sensation, and then present the property in question as that which has such an effect on the likes of us, at least under favourable conditions. To do so would be utterly pickwickian. What we would naturally do instead is to describe the effects that bodies, including our bodies, have on one another and then characterise the properties in question as those associated with such and such effects.

How is it possible for response-dependent concepts not to be response-specific? The answer lies in recognising that the responses whereby we are sensitised to certain properties—the responses that mediate our mastery of terms or concepts for those properties—may differ from the colour sensation in a number of important ways. The effects whereby the presence of a suitable property is registered may not be as specific to sentient creatures as colour sensation; think of the effect of a smooth object in rolling comfortably against the skin. Or the effects may involve a practical response on the part of the observer; think of the effect of an object in bending under intentionally applied pressure. Or the effects may be holistically tied up with effects that simultaneously make other properties salient; even colour sensations may display a degree of holism, so far as something's looking red rules out its looking green or yellow. Or, finally, the effects may not be restricted to a single modality of sense; think of the different senses that register shape as distinct from colour.

Such variations from the simple sensation model can make for huge differences in how response-dependent concepts behave. Suppose that the flatness of a body becomes salient to me in the effect, at least under favourable conditions, of offering no resistance to my hand as I move it across the surface. Or suppose that the hardness of an object becomes salient in the parallel effect of resisting my efforts to press my finger into it. In each case the property that becomes prominent, the property that becomes available as something to which I can aspire to refer—something that I can conceptualise—is naturally associated, not just with the type of effect it has on my body, but with the type of effect that it has in general on bodies of any kind. Modulo favourable conditions, flatness is the property associated with the unimpeded movement of objects across a surface and hardness is the property associated with the impenetrability of an object by other objects.

It is not surprising that these terms or concepts should pick out properties of these kinds. Not only may I freely move my hand across a flat surface, and fail to insert my finger into a hard object. What is also available to me is the discovery that I can freely move an object held in my hand across a flat surface

and that I can fail to insert an object held in my hand into something that is hard. Thus I may directly experience, as it were, the effects of the properties, not just on my body, but also on other bodies. The properties may become salient to me in the effects of bodies on bodies that I experience through manipulation.

These effects, it should be noticed, may enable me to identify a number of different properties at once, representing those properties as necessarily connected in various ways. The concave shape of one object, and the convex shape of another, may show up in the fact that the first fits into the second. The greater size of one shape, and the lesser size of another, may show up in the fact that the second can be placed within the first. At the limit, it may not be possible to register the effect that makes one property salient without registering, or having the capacity to register, the effect that gives salience to another; and it may not be possible to have the one property satisfied without the other being simultaneously satisfied. This holism means that there is room for the discovery of more and more interrelated effects whereby different shape properties can be identified; it may begin to make sense of how we can discover, *a priori*, different geometrical ways of specifying various shapes.

Apart from this practical, potentially holistic aspect of the responses associated with the concepts of flatness and hardness, there is another feature that may help to make intelligible the contrast with colour concepts. This is that flatness, and to a certain extent hardness, is a property associated for me not only with tactile responses, but also with visual ones. I can feel or see that a surface is flat and so the response in which the property becomes salient to me as a potential term of reference may be a complex one. This being so, it is unsurprising if the property is represented as being capable of effects beyond the single effect that may be associated with colour. If it is capable of effects in both tactile and visual dimensions, then that alone is a reason why it has to be represented as a property with a wider causal potential than that which may be assigned to colours.

6. Response-Dependent Concepts are Not All Response-Opaque

Under the account of response-dependence given up to now, it would be natural to assume that the following holds. There is a response on the part of speakers that involves things seeming T—we may suppose that T-ness is a ground-level, realiser property. And that response serves to direct speakers to what is T—it makes the property of T-ness salient—under suitably favourable specifications. What is T-ness, then, on this account? It is the property that would make things seem T under those idealised conditions; it is the instantiated realiser of that idealised role. (The instantiated realiser may be the realiser in whatever world, actual or counterfactual, is under discussion; or, regardless of what world is under discussion, it may be the realiser in the actual world: that

is, the term 'T' may be used in a rigidified way. But henceforth we can neglect that complication.)

If the realiser property to which a response-dependent term refers is always the instantiated realiser of an idealised role then, despite the fact that we will not normally take the property under the aspect of playing such a role, a curious result follows (Smith and Stoljar 1998, Pettit 1998b). The property that is picked out by the term may be different, as the relevant instantiating world differs. If we use the term 'red' in characterisation of this world, then it will pick out the particular spectral reflectance here in this world that makes or would make things look red under favourable specifications. But were a different world to be actual, in particular a world in which a different spectral reflectance played that role, then the term in our mouths would pick out that different property. Thus for all that we know just by mastering the use of the term 'red', the property picked out may be any of a variety of candidates. To put the matter in a phrase, the property of redness to which our responses—our seemings—direct us is opaque to those responses.

Response-opacity is avoided, of course, if the property to which our responses direct us in such a case is the higher-order disposition. The higher-order property of being such as to make things look red remains the same, even as the relevant instantiating world is envisaged as changing; what shifts and what eludes us is the nature of the property grounding that disposition: this does remain opaque, so that opacity is postponed rather than really avoided (Pettit 1998b). What we want to argue in this section, however, is that response-dependent concepts, even if they refer to realiser properties, need not be response-opaque. Response-opacity is genuinely avoidable, then: it is a feature of some respondent-dependent terms, but not necessarily of all.

Where a concept directs us to the instantiated realiser of the idealised, response-dependent role, then such opacity will certainly materialise. Our semantic competence with a predicate will enable us to know what property we ascribe in the sense of knowing that we ascribe the property that is salient here or there or wherever; the property, in effect, that plays a role in virtue of which our attention is engaged. But it will not enable us to know which of a variety of candidates is indeed salient here or there, which of a variety of candidates plays the role. We will be in the same position that we are in with defined terms when we know that in using a term like 'mass' we are ascribing whatever property plays the mass-role in physical theory—whatever property connects suitably with force and acceleration and so on—but do not know which of a variety of possible candidates is instantiated in that role. We cannot rule out the possibility that intrinsically different properties might play that role, though we may not be able of course to give an account of the difference between them.

The reason response-dependence does not entail response-opacity is that a response-dependent concept need not refer, as in the case imagined, to the instantiated realiser of an idealised role. It may refer instead to the idealised realiser of an idealised role. It may be what we can describe as an idealised

concept. What an idealised response-dependent predicate is going to pick out, then, is not the instantiated property that plays the relevant idealised role but the idealised property that plays that role. It will pick out whatever property, instantiated or not, that will play the role under suitably favourable specifications.

Why would idealisation avoid response-opacity? If we use an idealised predicate 'S' to characterise the world and if 'S' picks out the idealised property that would play a certain idealised role, then no matter which world is actual we will be picking out the same property. Whether the world that is actual be this or that or yet another, the property picked out will be the same idealised realiser of the idealised role. Even if the user of the term is an isolated brain in a vat, indeed, the term will still pick out that property.

But it is one thing to see that idealisation would ensure that response-dependent terms or concepts are not response-opaque. It is quite another thing to show that there are such terms or concepts in active employment. If a term is idealised in the relevant way, then there are two features we may expect it to display. First, we should be willing to think that even if the property or whatever is not instantiated in a world under discussion, still the property picked out in false ascriptions is well defined; directing us to an idealised realiser, the response-dependent role picks out a determinate property even if there is no actual realiser to be found. And second, we should see an intuitive contrast between the abstract sort of property or whatever picked out by an idealised term and the concrete type of property to which an unidealised counterpart would direct us. The idealised term refers to the realiser in certain idealised conditions and, since those conditions may cover a variety of possible ways things can be, such a realiser is bound to be a disjunction of many different properties and, consequently, a property that abstracts from all such further variations; it is bound to contrast in this way with the concrete, instantiated sort of property—the property about which much more can in principle be learned empirically—that answers to an unidealised term.

Using these expectations as a heuristic, the predicates that assign geometrical properties stand out as likely examples of idealised terms, in particular of idealised, response-dependent terms. We are thinking of predicates like 'straight' and 'parallel', 'smooth' and 'flat' and 'regular' and so on. With such terms we are readily prepared to admit that none of the things in the actual universe, certainly none of the things with which we are familiar, may actually instantiate the corresponding properties: no edges may be straight, no pairs of edges parallel, and so on. And with such terms we do spontaneously see the properties to which they refer as being abstract rather than concrete. With the property to which 'red' directs us there are all sorts of empirical questions as to its physical nature, and so on, that naturally teem. With the property to which 'straight' or 'flat' directs us, there are not; we do not think of the property as one about which there is more to be empirically learned over and beyond what we learn in mastering the term or concept.

Given this hypothesis about geometrical terms, it should be no surprise that we intuitively think that the properties in question are not opaque to the responses in which they manifest themselves to us. There is little sense to the worry that we cannot know which property is the property of straightness or flatness or parallelhood that we pick out in our use of corresponding terms. It is sensible to allow that we may not know which property is picked out by 'red'—that is, which realiser property is picked out—but it would border on nonsense to entertain a similar thought with the geometrical terms and properties.

But how can a term like 'straight' be response-dependent and yet have an idealised, abstract referent? The response-dependent term is always associated with the occurrence of an effect on human beings under independent, favourable specifications. Such specifications, as in the case of redness, involve ruling out obstructive factors of the kind that give rise to discrepancies across time and place: sodium lighting, rotating objects, coloured glasses, and the like. But favourable specifications may also involve the availability of, say, as much information as possible on a matter on which it is always possible to get more and more information. And with such specifications—with specifications that things are ideal, as we may put it, not just normal—we may have to admit that they cannot be fully satisfied in the sort of world that is actual; they refer us to wholly idealised conditions. Where a response-dependent term is guaranteed to go with the relevant response only in idealised conditions, it becomes feasible to think of the semantic value of the term, not as the instantiated property that fulfils that idealised role, but as the idealised property that does so: the property that would do so in idealised conditions. This, we believe, is what happens with a term like 'straight'.

Is this edge straight, we ask. You say, yes; I say, no. Suppose that I can produce better information in the sense of being able, with the help of technology, to give you access to the edge at a greater level of tactile or visual resolution. In that case the discrepancy will naturally be resolved in favour of my response. The edge may be straight-for-practical-purposes—it may be approximately straight—but it is not straight in the strict sense of the term. Extrapolating from this case, we must admit that for any actual-world edge it is always possible to envisage more information such that it would lead us to say that the edge is not strictly straight. The property of straightness that we identify on the basis of our visual and/or tactile responses is one that will show up for sure only under conditions of information that are not satisfiable in the actual or in any plausible world. And so we are naturally led to admit that the property of straightness is idealised in character. Although we manage to make semantic contact with it—although it has the status of a property that we lock onto immediately—it is identified without any presupposition of instantiation.

A second example—one of a predicate, plausibly, that is holistically linked with 'is straight'—may help to shed home the possibility. Are these presumptively straight edges parallel? You say, yes; I say, no. Suppose I can extend them further than you—extend them, by our shared lights—and that the infor-

mation revealed shows that they are approaching each other. In that case the difference between us will be resolved in favour of me. The edges may be more or less parallel but they are not parallel, strictly speaking. Extrapolating from this case we can see that for any actual-world pair of edges it is always possible to envisage more information of the relevant kind being available such that it shows that they are not after all parallel: nearly parallel, perhaps, but not quite. The property that we identify on the basis of extending pairs of edges, or imagining them extended, and finding them still apart is one that may never actually be instantiated. It is, as we took straightness to be, a wholly idealised property. It links up *a priori* with how things would present themselves—how edges would behave on being extended—only under wholly idealised specifications: only with how they would present themselves when infinitely extended.

We conceive of straightness or parallelhood, then, as the abstract property that would play the required role in idealised circumstances, not as the instantiated, concrete property that does so. And we do so prudently. For the way in which our use of the term is guided shows that by our own lights the property might not be suitably instantiated. Thus to let the term track the putatively instantiated property, not the idealised one, would be to run the risk of having it fail to ascribe anything.

Under this account, it should be noted, we still identify the property of being straight or parallel so far as we are capable of having certain responses; that is what makes the corresponding terms response-dependent. But the actual responses that we experience may be, for all that our conceptualisation entails, responses just to things that approximate the property rather than instantiating it. We do not conceive of the property that we ascribe, now here, now there, as that instantiated property that connects with such and such responses under such and such conditions. We think of it as that which would connect with the types of responses involved under idealised specifications that we can never hope to satisfy. We think of it as a property that remains available to be ascribed—asccribed falsely—even if it is not suitably instantiated.

Conclusion

The point of these last three sections has been to show that the response-dependence that semantically basic terms must display, by the argument of earlier sections, is not so hard to live with as might have been expected. Response-dependent terms need not be response-relational. They need not be response-specific. And, as we have just seen, they need not be response-opaque: they may not be instantiation-bound in such a way that users do not necessarily know which realiser-properties the terms can be used to ascribe. It may be compulsory to admit the response-dependence of semantically basic terms; but the cost of doing so need not be as great as some have supposed.

Another way of putting the conclusion of these last three sections is this. The response-dependence of a term or concept means that it comes into use by

virtue of a happy contingency: the fact that human beings are disposed to respond in certain ways to the things around them. Accepting response-dependence, then, involves accepting that the terms or concepts in question are infected by a certain anthropocentricity. But that anthropocentricity, we can see from the last three sections, comes in different degrees or grades. Response-relational concepts are more anthropocentric than those that are not relational, response-specific concepts are more anthropocentric than those that are not specific, and response-opaque concepts are more anthropocentric than those that are not opaque. Accepting the response-dependence of semantically basic terms may force us to acknowledge a certain anthropocentricity in the way we form concepts but it need not involve the full-blown version that might trouble those of us who aspire to embrace various realist and objectivist positions.⁵

NOTES

1. Entering the qualification makes for an important correction of the claim about a *priori* linkage in Pettit (1991), (1993) and elsewhere, as noted in Pettit (1998c). Only when the correction is made, for example, do we see the contrast discussed below between terms like 'red' and 'comic' on the one hand and terms like 'straight' and 'square' on the other. In the earlier formulations, there is already a divide between Pettit's approach and Johnston's (1991, 609–11), but from the present perspective the divide is not wide enough.
2. We are grateful to Richard Holton for pressing us on these matters. See Pettit (1999) for a fuller treatment of fallibility.
3. We have been discussing the qua-problem, and arguing for response-dependence, with regard to predicate terms. But it is worth noticing that the same problem arises with terms of all kinds, including terms for relations, functions and particulars. And so it suggests that all semantically basic terms, whether predicative or not, will be response-dependent in character. The point may be resisted with proper names, in view of the causal or baptismal theory mooted by Kripke (1980); according to this theory the referent of a proper name can be fixed, and fixed without any epistemic trace in the learner, by the causal origin of the name-use. We cannot present a proper critique of the approach here (see Jackson 1998). But we note that with basic names, as with other basic terms, there is a problem of the same kind as the qua-problem and that its resolution points us towards a response-dependent line. The problem with the semantically basic name is whether the individual presented as bearer of the name is to be taken under this or that kind: qua instance of the-biological-entity-that-has-had-such-and-such-actual-causal-contact with me; qua instance of the-continuous-object-enjoying-such-contact, whether or not that object is human or even animate; qua instance of the-perhaps-quite-discontinuous-thing-at-the-origin-of-such-contact, in which case the bearer could even be a hologram; and so on.
4. This is to say that they will think of 'red' as rigidified; it will refer to the actual property that makes things look red, not to whatever property in any possible world we are imagining that would make things look red there. See Haukioja 2001. The story may be varied, however, so as to allow for a non-rigidified reference.
5. We benefitted from many useful comments received when this paper was presented at a conference in the University of Sydney, organised by Stephen Buckle and Huw

Price, and at a colloquium in the Graduate Center, City University of New York. We are particularly grateful for written comments received from Richard Holton, our commentator at the Sydney conference, and Jussi Haukioja.

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