Secondary Qualities, Realism and Modalities

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1. The Thesis to be Defended

The dispositional analysis of secondary qualities is compatible with a realist semantics for secondary qualities ascriptions.

I shall assume that the basic outline of the dispositional analysis is correct and I shall argue that the modal claim to the effect that ascriptions of secondary qualities to ordinary physical objects may be true in the absence of evidence is compatible with one specific key feature of our experience of these qualities. Taste, a rather neglected quality, will serve as an example.

2. Secondary *vs.* Primary Qualities

According to the tradition inherited from John Locke, the instantiation of a secondary quality in an object consists in a disposition of the object to produce sensory experiences of a certain phenomenological character in us, whereas the instantiation of a primary quality consists in an intrinsic feature of the object. Strictly speaking, these are stipulative definitions of the terms "secondary quality" and "primary quality." The distinction leaves it open whether there are any qualities at all, either primary or secondary ; and even if it turned out in the end that there are indeed such qualities, it still remains a substantive question at this point, until specific arguments are spelled out for each particular quality we care to take into consideration, which ones are primary and which ones are secondary.

A further claim of the Lockean tradition settles both questions : that of deciding whether there are qualities at all, and that of knowing which ones turn out to be dispositions and which ones turn out to be intrinsic. We can always know, the Lockean tradition has it, whether a quality is secondary or primary. When presented with the two familiar open lists : {number, extension, shape, size, solidity, weight, rest, motion, …} on the one hand, and {bulk, texture, colour, taste, smell, sound, …} on the other, we know which one is a list of which kind of quality. There are, of course, qualities according to Locke and his followers, and the dispositionalists ground their contention on the acknowledged fact that *we* have means at *our* disposal to recognize which category the qualities belong to. It is important to keep in mind that this distinction between objective and subjective ways of representing the world is not at all drawn in the abstract. On the contrary, the distinction is justified by the appeal to *abilities* which *we*, humans, have at *our* disposal, as a fact or gift of nature, to sort out the primary from the secondary, and which we exercise either at will or more or less instinctively (per-

haps even unconsciously in some instances). The distinction is, in some important sense, irreducibly relative to *us* : to our physiological and mental makeup and to our own particular position in the world.

How do we know that, say, shape is one of the primary qualities of a cake and taste one of its secondary qualities? According to the dispositional account, a test may settle the matter. When we eat it, a cake normally presents us with the sensory experience known to us as the experience of taste. It is built in the nature and quality of this particular experience to inform us that what we are experiencing is *an appearance*. Not so with shape and here, the dispositionalist may make two distinct claims : a negative claim to the effect that the cake is not presenting us with any kind of sensory experience known to us as the experience of shape, and a positive claim to the effect that we have means at our disposal to recognize that the object instantiates an intrinsic feature when it is instantiating the (therefore primary) quality of shape.

The first of these two claims is false, for we do indeed have sensory experiences of primary qualities, i.e. of number, extension, size and the like, so I shall not rest my case for the modal claim on it. The second is justified by the fact that there are experience-independent criteria for whether a primary quality like shape is instantiated or merely seems instantiated, whereas, for secondary qualities, the distinction between real and apparent instantiation, i.e. between real and apparent sweetness, must be drawn from *within* the realm of experience[1]. This distinction between the ways in which the real and the merely apparent occurrence of qualities is to be drawn is crucial. A judgement to the effect that an object possesses a primary quality is justified by means which are *not* based on the experience of an appearance, although primary qualities do indeed have an appearance. The important point in this connection is that our experience of primary qualities *may not* be part of the justification for our judging that an object possesses them, whereas our experience of secondary qualities *must* be part of the justification for our judging that an object possesses them.

I shall argue later on that this particular feature of secondary qualities, i.e. our experience of them *qua* appearances or occurrences of appearances, is compatible with the modal claim. Let me just take stock of the point of the distinction for the time being : for a cake to have a taste is to taste a certain way to cake eaters, but for a cake to have a certain shape is *not* to seem to have precisely that shape to whoever happens to be touching it or looking at it. If the cake is sweet, then it merely *seems* sweet ; not so, *mutatis mutandis*, if it is, say, round.

I shall briefly focus on one well-known objection to this analysis. I do not intend to argue for the dispositional account here, but the standard rejoinder to the objection tells us something informative about both kinds of qualities, and since what it tells us helps to determine what is distinctive of, respectively, subjective and objective ways of representing the world, I shall

say a few words about it. It will indeed play a role in the argument I shall propose in favour of the modal thesis to the effect that secondary qualities ascriptions may be true even if we turn out to be unable to acknowledge their truth.

3. Circularity and Dispositions

The well-known objection is that the dispositional account is circular, for when we specify which kind of experience, sensation or appearance, a sweet object is disposed to produce in us, we need to use the word "sweet" or invoke the concept of sweetness. The dispositional analysis of being sweet in terms of particular objects tasting sweet is faulty, the objection goes, because, being circular, it is utterly uninformative. It may, as a matter of fact, hardly stand for an analysis since the *analysans* (i.e. "tastes sweet" or, to spell it fully, "tastes sweet to *X*") contains an occurrence of the *analysandum* (i.e. "sweet") among its constituents.

The dispositionalist may try to rebut the objection in two mutually exclusive ways. He may look for a *non*-circular way of specifying which kind of experience a sweet object is disposed to produce in us, or he may stick to the circularity and argue that it isn't vicious at all.

The first (non-circular) attempt either eschews the dispositional account altogether or yields a dispositional account of *another* secondary quality, for the following reason.

According to the allegedly faulty analysis, the logical or conceptual equivalence " 'is *F*' ↔ 'seems *F*' " must hold whenever secondary qualities are taken as values of *F*. The equivalence captures the dispositionalist's claim that the instantiation of a secondary quality is entirely a matter of appearance, that experiential or perceptual facts are *constitutive* of these qualities, that having the quality and seeming to have it amount to the same thing[2].

Since the equivalence between the two kinds of expressions is conceptual, we may give a modal formulation of the dispositionalist's thesis in terms of a necessary connection. The dispositionalist's thesis is that, whenever secondary qualities are concerned :

(1) $\Box$ (x is F $\leftrightarrow$ x seems F).

A non-circular dispositionalist would have to argue for a schema like :

(2) $\Box$ (x is F $\leftrightarrow$ x seems G).

But (2) captures a claim to the effect that secondary qualities are entirely a matter of perceptual facts, experiences or appearances *whose subjective rep-*

resentational content must be distinct from the content captured by the term of the analysandum.

This is obviously unacceptable. If the ultimate criterion for whether an object is sweet is that it seems *G* and that seeming *G* (i.e., in this case, tasting *G*) may *not* be phenomenologically equivalent to tasting sweet, it follows that having the quality of sweetness and seeming to have it cannot amount to the same thing. For the dispositional account of sweetness to be non-circular, it must yield the equation of being sweet and appearing otherwise since the representational content of the appearance referred to in the *analysans* must be distinct from whatever representational content is referred to in the *analysandum*. So it is clear that the only dispositional account of sweetness worthy of that name is the one according to which *nothing other* than the phenomenological appearance of sweetness may be constitutive of the quality of sweetness. Circularity is just what we should expect : seeming sweet constitutes the only possible satisfaction condition for an object's being sweet. The satisfaction condition of a secondary quality may not be anything over and above the experience which is constitutive of it.

Obviously, the dispositional account yields an irreducibly subjective view of secondary qualities. Tastes are subjective in Thomas Nagel's sense : they are accessible only from a particular experiential point of view[3]. The reason why shapes, for instance, do not involve such a constitutive relation to experience is that there are non-phenomenological criteria for whether an object is square, i.e. criteria which, although they may involve perceptual facts (e.g. those necessary to the recording of the results of measurements), do not involve any which would be *constitutive* of shape. The reason why the earmark of subjective ways of representing the word helps the dispositionalist out of the viciousness of the circle is that his account shows that when a *no* non-phenomenological criterion is available, knowing that the quality is instantiated may only consist in being presented with an appearance.

4. Realism *vs.* Anti-Realism and the Argument from Contingency

If the view which has been sketched is correct, secondary qualities ascriptions, i.e. statements such as "the cake is sweet", are true if and only if other statements are also true ("the cake tastes sweet", in our case).

Realism with respect to a particular class of statements is the claim that the statements of that class may be true whether or not there is evidence for their truth[4]. Accordingly, realism with respect to the class of ascriptions of secondary qualities to physical objects is the claim that statements like "the cake is sweet" may be true in the absence of evidence.

Now, since "is sweet" and "seems sweet" are equivalent, how could anyone uttering "the cake is sweet" ever utter a falsity since the utterer's claim

is simply, as a matter of fact, that the cake *tastes* sweet? According to the dispositional analysis, the evidence in favour of "the cake is sweet" is nothing more than the appearance which constitutes the quality. So if the aforementioned cake tastes sweet to whoever happens to utter that sentence, then the utterer has everything he needs to have in his possession to make a warranted assertion. To suppose that his utterance could be true in the absence of evidence is to suppose that it could be true even though the cake did not seem sweet to him. But this flatly contradicts the dispositional view : the cake must indeed seem sweet to the utterer if his utterance of "the cake is sweet" is to be true *tout court*.

It looks as though a realist, who claims, generally speaking, that :

(3) $\Diamond$ (*s* is true • there is no evidence for *s*),

will have to treat taste as if it were a primary quality. Schema (3) will typically yield instances such as :

(4) $\Diamond$ ("the cake is sweet" is true • there is no evidence for "the cake is sweet")

and if (4) holds, then, obviously, it may be the case that the cake is sweet although it does not *seem* sweet.

Is it therefore hopeless, or even nonsensical, to try to argue for realism with respect to these ascriptions, especially if one wants to claim - as I do - that our experience of secondary qualities *qua* experiences of appearances is precisely what counts as their justification? I don't think so. One may, on the contrary, sketch the following argument in favour of realism with respect to secondary qualities ascriptions.

Strictly speaking, the dispositional analysis of secondary qualities prevents us from drawing a distinction between sweetness as it appears and sweetness as detected by the application of an experience-independent criterion, i.e. by non-phenomenological means. It does not prevent us, though, from drawing a distinction between real and apparent sweetness from *within* the realm of appearance. As I have already noted, relying on McGinn, this is actually how the distiction between real and apparent sweetness *must* be drawn (i.e. by reference to experiences taken as standard). It would be mistaken, from the dispositionalist's point of view, to reject the distinction between sweetness as it standardly appears and an individual's or a community's illusory sweetness on the ground that the distinction isn't true to the phenomenology of sweetness. After all, the *analysans* of the dispositional analysis isn't true to the phenomenology of sweetness either. It tells us, for instance, that sweetness is a *relational* property. It claims that the cake is sweet just in case it tastes sweet *to* some perceiver. Now, of course, the phe-

nomenology of our perception tells us otherwise, for when the cake tastes sweet, it appears to us as having a monadic property, not a relational one.

The point here is that it would be wrong to object that, since sweet cakes taste the way they would taste if taste were analysable as a primary quality, i.e. non-relationally, they do not taste the way the dispositional analysis says they do. The fact that sweet objects are not represented perceptually as being the way the dispositional analysis of taste asserts they are, need not worry us. It is possible for a secondary quality like sweetness to be analyzed in terms of a condition which must be fulfilled (i.e. the phenomenological condition of seeming sweet) without it following that, if some object falls under the concept, then the condition must necessarily hold. And if that is the case, then the distinction we need may perfectly be drawn within the limits of the realm of appearance, i.e. the realm which we take to be constitutive of the quality of sweetness. So we are perfectly allowed, without thereby giving up the dispositional analysis, to say that someone could suffer an illusion with respect to sweetness because the cake which would normally taste sweet to anyone in the community under standard conditions does not seem sweet to him.

Once that distinction is allowed, the argument in favour of realism about ascriptions of secondary qualities amounts to the following. The sensory experience which, under standard conditions, justifies our claim that a given object instantiates a secondary quality is contingently connected to the truth of the statement to the effect that it does indeed instantiate the quality. Whatever justifies our claim that an object instantiates a secondary quality is contingently connected to the fact that it instantiates it, although its instantiating the quality consists in seeming to have it. The tie is contingent because an object could fall under the concept of sweetness without the standard phenomenological condition holding. We could therefore very well not have the experience of that quality at all, especially if the distinction between real and apparent sweetnes is drawn within the realm of appearance, for an individual may, as it were, miss sweetness although the community does not. In other words, although the experiential non-conceptual content of the sensory experience has an epistemic value, we could very well not grasp either the content or the value. It follows that secondary qualities ascriptions may be true even though there is no evidence for them, i.e. even though no experiential and justifying non-conceptual content is available to us.

We are now in a position to claim that it is epistemically possible that ascriptions of secondary qualities to ordinary physical objects be true in the absence of evidence. I shall note this, as applied to (4), in the following way:

(4_E) $\Diamond_E$ (“the cake is sweet” is true • there is no evidence for “the cake is sweet”).

We may also take the possibility *not* to depend on the state of our knowledge and claim that it is logically possible that *s* is true in the absence of evidence. I shall note this, as applied to (4), in the following way :

(4_L) $\Diamond_L$ ("the cake is sweet" is true • there is no evidence for "the cake is sweet").

Should we take the modality in (4) to be independent of the state of our knowldege, or shouldn't we? We should indeed, if only because natural possibilities entail logical ones. I do not see why a direct argument, i.e. one which would *not* rest on the epistemic consideration that the appearances which we must take as standard appearances of sweetness could be beyond our reach, is needed to ground the strong metaphysical or logical possibility asserted in (4_L). On the contrary, as far as ascriptions of the sort we have been considering are concerned, and given that secondary qualities are nothing but standard appearances, this is precisely how we should argue.

Notes

1 On this point, see McGinn (1983 : 11).

2 I use "seems *F*" as a generic complex term which covers perception by or through any of the senses, i.e. either sight, taste, smell, etc… , so that "seems *F*" may always be replaced whenever needed by "looks *F*", "tastes *F* ", "smells *F*", etc…, without ever losing trace of the dispositionalist's claim that the visual, gustative, olfactive and other perceptual appearences, constitute the corresponding secondary qualities of colour, taste, smell and the like.

3 See Nagel (1974).

4 This is Michael Dummett's characterization of the realism *vs.* anti-realism debate. Dummett's anti-realism is expounded at lengh in the articles collected in Dummett (1978), most notably in "Truth" (1959), "Realism" (1963) and "The Philosophical Basis of Intuitionistic Logic" (1973), reprinted as chapters 1, 10 and 14 of the 1978 volume.

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