DISCUSSION

TWO TROUBLESOME CLAIMS ABOUT QUALITIES IN LOCKE'S ESSAY

JONATHAN BENNETT ascribes the following two doctrines to Locke.

*The Analytic Thesis:* for something to have a secondary quality is simply for it typically or normally to appear to have it; in more Lockean terminology, for something to have a secondary quality is simply for it typically or normally to cause perceivers to have an idea of that quality.

*The Causal Thesis:* the conditions determining the occurrence and character of sensory experience (ideas of sense) can be adequately specified without the use of secondary quality terms.¹

This is not Bennett's wording, but I am reasonably sure that he would recognize the above as formulations of what he calls the Analytic Thesis and Causal Thesis. This is of no great moment, however, for my purpose is not to criticize Bennett's attribution of these theses to Locke, but rather to use these theses as I understand them to elucidate two rather troublesome Lockean claims. I shall therefore simply assume that Locke held these theses,² though of course he did not formulate them in the way I have, nor did he clearly distinguish two theses here, as Bennett points out.³ The two troublesome claims are these.

*The Resemblance Thesis:* unlike ideas of primary qualities, ideas of secondary qualities do not resemble anything in the object.

*The Containment Thesis:* primary qualities are in the object; secondary qualities are not.⁴

I shall consider these in turn.

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² The reader is referred to Bennett (ch. III) for a defense of the assumption that Locke held these two theses. If this paper is successful, then some rather difficult remarks of Locke's are explained on this assumption. By my lights, that in itself would be a defense.

³ Bennett, p. 95.

⁴ It is sometimes thought that Locke held not only that secondary qualities are not "in the object" but that they are "in the mind." This may, in part, be Berkeley's influence. As far as I know, Locke never explicitly claims that secondary qualities are in the mind. He does treat them as if they were ideas sometimes, for reasons I will discuss.
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THE RESEMBLANCE THESIS

Here is how Locke himself expresses the Resemblance Thesis.

[T]he ideas of primary qualities of bodies are resemblances of them, and their patterns do really exist in the bodies themselves, but the ideas produced in us by these secondary qualities have no resemblance of them at all. There is nothing like our ideas, existing in the bodies themselves. They are, in the bodies we denominate from them, only a power to produce those sensations in us: and what is sweet, blue, or warm in idea, is but the certain bulk, figure, and motion of the insensible parts, in the bodies themselves, which we call so [II, viii, 15].

Bennett claims that this must be interpreted as a formulation of the Causal Thesis.

Since ideas cannot resemble either bodies or qualities of bodies, this must be either discarded or transformed. The only plausible transformation is into something like the following: in causally explaining ideas of primary qualities, one uses the same words in describing the causes as in describing the effects . . .; whereas in causally explaining ideas of secondary qualities one must describe the causes in one vocabulary and the effects in another.

This, I think, is basically right, but it does not give us any insight into why Locke would express the Causal Thesis in the language of resemblance. To put the matter bluntly, how could Locke have been thinking the thought attributed to him, and have written what he in fact wrote? In order to answer this question, I am going to show how application of the Causal Thesis can lead to the Resemblance Thesis via certified Lockean moves.

To accomplish this, I shall need to make two further assumptions, each of which will be defended in a later section. The first of these is that Locke adhered to a causal theory of perception. In current analytic format:

\[ S \text{ perceives at } t \text{ that } x \text{ is } \phi \text{ just in case } x \text{ is } \phi, \text{ and } S \text{ has a } \phi-\text{idea at } t, \]

and \( S \)'s having a \( \phi \)-idea at \( t \) is caused in the normal way by a sensory confrontation (visual, tactile, auditory, and so forth) with \( x \).

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5 All references to Locke are to the Essay Concerning Human Understanding and are given in parentheses by book, chapter, and section.

6 Bennett, p. 106.

7 In some sense, of course, Locke almost certainly was not thinking the thought I attribute to him, but that sense condemns us to simply repeating Locke's words and/or to never knowing what he was thinking.
A few comments on this are in order. First, “perceives” here is a stand-in for ordinary perception verbs—“sees,” “hears,” “tastes,” “smells,” and “feels,” especially—and is not to be confused with Locke’s technical term for the relation a person has to an idea of sense—that is, what is called in this analysis simply “having an idea” (II, i, 9). Second, a $\phi$-idea is whatever sort of idea one typically or normally has—“perceives” in Locke’s technical terminology—when perceiving something which is $\phi$, and the having of which is partially constitutive of perceiving something which is $\phi$. To say one has a blue-idea need be no more than to say that one is having the sort of visual experience one typically or normally has when seeing something blue. In particular, it does not imply that one is having a blue idea (whatever that would mean).

The second assumption is that, though having a $\phi$-idea is not having an idea which is $\phi$, and Locke knows this, Locke often does leave out the hyphen, as it were. That is, he often does identify the idea required by the analysis in the perception of something which is $\phi$ by using a form of words which suggests either that $\phi$-ness is an idea, or that the idea is $\phi$. For now, I will simply treat this tendency on Locke’s part to use quality words to describe ideas as if it were an explicitly introduced convention, and I will call it the Idea Identification Convention.

With these assumptions at our disposal, we can readily see how the Resemblance Thesis could come to express the Causal Thesis. Consider the following statement.

(a) $S$ sees at $t$ that $x$ is round.

According to the Causal Theory of Perception this is equivalent to:

(b) $x$ is round, and $S$ has a round-idea at $t$, and $S$’s having a round-idea at $t$ is caused in the normal way by $S$’s visual confrontation with $x$.

Now the Idea Identification Convention allows us to drop the hyphens:

(c) $x$ is round, and $S$ has a round idea. . . .

(c) says that $x$ and $S$’s idea are both round—that is, it implies that $x$ and $S$’s idea resemble each other in shape. Indeed, (c) might be reformulated to read, “$x$ is round, and $S$ has an idea resembling $x$ in shape. . . .”

An analogous result can obviously be obtained for any statement of the form “$S$ perceives at $t$ that $x$ is $\phi$.” In the case in which the word
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replacing "\( \phi \)" is a secondary quality word, however, the Causal Thesis allows a further transformation. Suppose we have

\((\epsilon')\) \( x \) is blue, and \( S \) has a blue idea at \( t \), and \( S \)'s having a blue idea at \( t \) is caused in the normal way by \( S \)'s visual confrontation with \( x \).

Now the Causal Thesis says that it is possible without secondary quality words to specify the characteristics \( x \) must have in order that having a blue idea would be the normal effect of a visual confrontation with \( x \). \( X \), let us say, must have a beta-structure. \((\epsilon')\), then, may be replaced by \((d)\).

\((d)\) \( x \) has a beta-structure, and \( S \) has a blue idea and. . .

\((d)\) does not license any resemblance claim concerning \( x \) and \( S \)'s idea. This shows that someone holding the Causal Theory of Perception and making free use of the Idea Identification Convention might be led to sum up the impact of the Causal Thesis on the analysis of perception statements by saying that ideas of secondary qualities, unlike ideas of primary qualities, do not resemble anything in the object. Given that Locke leaned toward the forms of speech recommended explicitly by this Convention and this Theory, whether he did so consciously or not, he would very naturally have used the language of resemblance in expressing the Causal Thesis.

Of course, the fact that \((d)\) does not license any resemblance claim should not by itself lead one to say that no such claim is true, especially in the light of the fact that \((d)\) is derived from \((\epsilon')\) which does seem to license such a claim. There are at least two reasons, however, which Locke had for regarding \((d)\) as authoritative. First, the Causal Thesis tells us that a complete science can (and presumably should) dispense with \((\epsilon')\) and its kin in favor of \((d)\) and its kin. But science cannot dispense with \((\epsilon)\). Thus, good scientific theory is stuck with the resemblance claim implicit in \((\epsilon)\), but it will not entail the corresponding implication of \((\epsilon')\), and this makes that implication look like an artifact of unscientific talk. Although \((d)\) is not an analysis of \((\epsilon')\), it will replace \((\epsilon')\) in our most serious and precise account of the world; the relevant facts will be formulated by \((d)\) and not \((\epsilon)\) when it comes to our "official" account. Perhaps one should not take seriously the implications of unofficial, unscientific formulations. Locke, in any case, certainly believed we should not.

A second and more interesting reason Locke had for letting \((d)\) settle the resemblance claim might be put this way: in reckoning up
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the respects in which two things \( x \) and \( y \) resemble one another, one must not consider properties of either which are irreducibly relational or dispositional. Thus, \( x \) and \( y \) may both be sons, or both shorter than Bill Russell, or both solvents for sugar, but this does nothing to show that \( x \) and \( y \) resemble one another. Now the Analytic Thesis tells us that for an object to be blue is for it to have a disposition to affect perceivers in a certain way. Were everyone to become blind, nothing would typically or normally appear blue, and hence nothing would be blue.\(^8\) So if we want to see whether \( (c') \) licenses any resemblance claims, we must get it into a form which attributes only monadic non-dispositional properties to \( x \), and \( (d) \) appears to be the only candidate.

This, I think, reconstructs the operative reasoning behind the Resemblance Thesis, and it derives from a central idea in Locke's thinking about secondary qualities. We shall see in the next section that this very reasoning underlies the Containment Thesis: Locke holds that secondary qualities are not genuine qualities in the object at all, precisely because, in the object, they are barely powers and nothing more. To put the matter crudely as it applies to the present point, you can picture a quality, but not a bare power. To understand fully the thinking underlying the Resemblance Thesis, then, we must understand the distinction between powers and qualities which underlies the Containment Thesis.

THE CONTAINMENT THESIS

Here are some sample statements of the Containment Thesis.

The particular bulk, number, figure, and motion of the parts of fire or snow are really in them,—whether any one's senses perceive them or no: and therefore they may be called real qualities, because they really exist in those bodies. But light, heat, whiteness, or coldness, are no more really in them than sickness or pain is in manna [II, viii, 17].

[Both] motion and figure, are really in the manna, whether we take notice of them or no: this everybody is ready to agree to. . . . And yet men are hardly to be brought to think that sweetness and whiteness are not really in manna [II, viii, 18].

[Porphyry] has, indeed, such a configuration of particles, both night and day, as are apt, by the rays of light rebounding from some parts of that hard stone,

\(^8\) On Locke's view, secondary qualities are thus what Curley calls individual powers. E. M. Curley, "Locke, Boyle, and the Distinction between Primary and Secondary Qualities," Philosophical Review, LXXXI (1972), 447-448.
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to produce in us the idea of redness, and from others the idea of whiteness; but
whiteness or redness are not in it at any time [II, viii, 19].

The Containment Thesis figures in various ways in many passages, but these three passages are as near as Locke comes to a bald, unadorned statement of it.

What is puzzling about the Containment Thesis, aside from the fact that it seems to make the wild claim that objects are not red or sweet or warm, is the fact that it appears to be in flat contradiction to Locke's frequently repeated claim that secondary qualities are powers in the object to cause ideas.9

Secondly, such qualities which in truth are nothing in the objects themselves but powers to produce various sensations in us by their primary qualities, i.e., by the bulk, figure, texture, and motion of their insensible parts, as colors, sounds, tastes, etc. These I call secondary qualities [II, viii, 10].

What I have said concerning colors and smells may be understood also of tastes and sounds, and other the like sensible qualities; which, whatever reality we by mistake attribute to them, are in truth nothing in the objects themselves, but powers to produce various sensations in us [II, viii, 14].

The contradiction is only skin deep: it is an artifact of sloppy expression. What Locke means, I think, is that colors, sounds, tastes, and so forth are not genuine qualities of objects but simply powers in them and nothing more.10 Indeed, it is my contention that Locke regards the Containment Thesis as a consequence of the claim that colors, sounds, tastes, and so forth are merely powers in objects to cause ideas. So what I take to be Locke's position might briefly be put this way. Having a primary quality does not consist simply in having a power to produce ideas; in fact, by far the most important locus of primary qualities is in insensible elementary particles—that is, bodies of whose unchanging qualities we can have no ideas at all. But for something to have a secondary quality is simply and solely for it to have a power to produce certain ideas (the Analytic Thesis). And

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9 At II, viii, 8, Locke seems to say that all qualities are powers to produce ideas. At least, this is the way Curley understands the passage (op. cit., p. 443). This is not, I think, Locke's considered view, as I will argue shortly. Still, the passage does conflict prima facie with the Containment Thesis.

10 Thus far, I agree with Reginald Jackson ("Locke's Distinction between Primary and Secondary Qualities," Mind, 38 [1929]; reprinted in D. M. Armstrong and C. B. Martin [eds.], Locke and Berkeley [Garden City, 1968]). But Jackson does not really argue for this interpretation, nor does he seriously attempt to explain the roots of the distinction between qualities and powers in Locke's thought.
therefore, colors, sounds, tastes, and so forth—the secondary qualities—are not really qualities of objects at all.

On my view, then, the Containment Thesis derives directly from the Analytic Thesis together with the thesis that bare powers are not properly thought of as qualities. But it is stated in a sloppy manner (for reasons I will eventually discuss): rather than say that “yellowness is not actually in gold, but is a power in gold to produce that idea in us by our eyes, when placed in a due light” (II, xiii, 10), Locke should have said that yellowness is not a genuine quality in gold, but is rather a power to produce in us an idea of yellowness (that is, a yellow-idea).

There can be little question that Locke held that powers are not properly thought of as qualities. Sometimes he says this straight out.

[M]ost of the simple ideas that make up our complex ideas of substances, when truly considered, are only powers, however we are apt to take them for positive qualities; e.g. the greatest part of the ideas that make our complex idea of gold are yellowness, great weight, ductility, fusibility, and solubility in aqua regia, etc., all united together in an unknown substratum: all which ideas are nothing else but so many relations to other substances; and are not really in gold, considered barely in itself [II, xiii, 37].

More often, he simply opposes being a real quality in bodies with being merely a power.

[I]t being necessary in our present inquiry to distinguish the primary and real qualities of bodies, which are always in them (viz. solidity, extension, figure, number, and motion, or rest, and are sometimes perceived by us, viz. when the bodies they are in are big enough singly to be discerned), from those secondary and imputed qualities, which are but the powers of several combinations of those primary ones, when they operate without being distinctly discerned [II, viii, 22].

The force of this is surely that, whereas primary qualities are real qualities (that is, genuine qualities, really qualities), the so-called (“imputed”) secondary qualities are but powers and hence not really qualities at all. The contrast with “x is a real quality” is therefore not “x is not a real quality—that is, only an apparent quality” but “x is not really a quality but a power—that is, only apparently a quality but actually a power.”

Here is another case of the same contrast at work.

What I have said concerning colors and smells may be understood also of tastes and sounds, and other the like sensible qualities; which, whatever reality we by mistake attribute to them, are in truth nothing in the objects themselves, but powers to produce various sensations in us [II, viii, 14].
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Locke surely does not think that powers are unreal, but only that they are not really qualities. What Locke is warning against here is treating redness as if it were a real quality like roundness instead of a mere power like the capacity to blanch wax. Later on in the same chapter, Locke comes at the same point from another angle.

But, though the two latter sorts of qualities are powers barely, and nothing but powers, relating to several other bodies, and resulting from the different modifications of the original qualities, yet they are generally otherwise thought of. For the second sort, viz. the powers to produce several ideas in us, by our senses, are looked upon as real qualities in the things thus affecting us: but the third sort [the power in one body to change another] are called and esteemed barely powers [II, viii, 24].

Here, Locke says that although secondary qualities are actually nothing but powers, people think they are real qualities, whereas they do not make this mistake in connection with such things as the power in the sun to make wax white or liquid. The strategy of the section as a whole is to move from what Locke takes to be the obvious and universally conceded fact that the sun’s powers to blanch or melt wax are “powers barely,” and from what he takes to be the lack of any principled distinction between these powers of the sun and its powers to cause secondary quality ideas, to the conclusion that the secondary qualities of the sun are no more real qualities in the sun than are its powers to blanch or melt wax. All this is quite unintelligible except on the assumption that Locke holds that powers generally are not to be thought of as genuine qualities, and hence that what he has called secondary qualities “to comply with the common way of speaking” (II, viii, 10), being themselves only powers, are not properly thought of as genuine qualities of objects.

This interpretation runs counter to what E. M. Curley contends about this matter, for on his view the distinction between primary and secondary qualities is a distinction among powers to cause ideas.11 This interpretation is mainly based on II, viii, 8, which Curley takes to be Locke’s considered definition of quality.

Whatever the mind perceives in itself, or is the immediate object of perception, thought, or understanding, that I call idea; and the power to produce any idea in our mind, I call quality of the subject wherein that power is.

What Locke says here is that he calls powers to produce ideas qualities, and this he certainly does on many occasions. But he says just two

11 Curley, op. cit., p. 443.
sections later (only about a page) that this is to comply with the common way of speaking.\textsuperscript{12}

To these [secondary qualities] might be added a third sort, which are allowed to be barely powers; though they are as much real qualities in the subject as those which I, to comply with the common way of speaking, call qualities, but for distinction, secondary qualities [II, viii, 10].

This certainly does put the “third sort” and secondary qualities on a par as bare powers, but we have just seen what Locke intends to make out of that.

We already have an indication of his considered view in the fact that the previous two sentences, which first introduce secondary qualities, introduce them, as qualities, only with an accompanying explanation:

\textit{Secondly}, such qualities which in truth are nothing in the objects themselves but powers to produce various sensations in us by their primary qualities, i.e., by the bulk, figure, texture, and motion of their insensible parts, as colours, sounds, tastes, etc. These I call \textit{secondary qualities}.

Indeed, Locke almost never, in this chapter or elsewhere in the \textit{Essay}, uses the phrase “secondary qualities” without this accompanying explanation. And in the passage lately quoted from II, viii, 24, Locke identifies the secondary qualities for us as “the powers to produce several ideas in us, by our senses.”

But there is a more conclusive objection to Curley’s line immediately at hand. Locke speaks of the bulk, figure, texture, and motion of the insensible parts of things, here and throughout the \textit{Essay}. He never apologizes for this usage. Indeed, as a good atomist, he plainly thinks that genuine qualities have their primary and most important locus in elementary particles.\textsuperscript{13} \textit{Strictly speaking}, certain qualities are had

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\textsuperscript{12} Locke takes compliance with the common idioms to be of some importance.

It looks like too much affectation wholly to lay them by: and philosophy itself, though it likes not a gaudy dress, yet, when it appears in public, must have so much complacency as to be clothed in the ordinary fashion and language of the country, so far as it can consist with truth and perspicuity [II, xxi, 19].

That Locke does not think calling colors, sounds, tastes, etc., \textit{qualities} consists with truth and perspicuity is amply shown by the fact that he constantly qualifies this manner of speaking when he uses it himself.

Such ways of speaking, though accommodated to the vulgar notions, without which one cannot be well understood, yet truly signify nothing but those powers which are in things to excite certain sensations or ideas in us [II, xxxi, 2].

\textsuperscript{13} The great majority of primary quality attributions in II, viii, and II, xxiii, where the primary-secondary quality distinction looms largest, are to just such insensible particles.
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*only* by such particles—for example, solidity. 14 Yet to say that a particle is insensible is just to say that there are no ideas of its qualities, and Locke shows in several places that he is perfectly aware of this (for example, II, viii, 13 and 22; II, xxiii, 11). This is precisely why Locke thinks we cannot know the real essences—that is, the ultimate micro-constitutions—of substances. No serious atomist could think that to have a quality is simply to be disposed to appear in a certain way. 15

I think that it must be admitted that the Containment Thesis derives from the Analytic Thesis via the doctrine that what is nothing but a power of an object is not properly thought of as a quality of that object. 16 This leaves us with an interesting question—namely, why did Locke think powers are not qualities or, rather, how exactly are we to understand his distinction between what are “real qualities in objects” and what are “powers barely”? The distinction seemed so obvious to Locke that he did not explain it. This is because it is an inextricable part of a deep and pervasive picture Locke had about the role of powers in scientific explanation. It is a picture which Locke never seriously questioned in principle, though he had strong doubts about the practical possibility of carrying out the program the picture requires. 17 I shall try to explain this briefly.

To have a power is simply to behave in conformity with a certain

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14 See II, iv, 2-4, esp. sec. 4 in which solidity is distinguished from hardness. Notice, by the way, that what Locke says here makes it seem as if only the idea of hardness could derive from touch!

15 Elementary particles do, of course, cause ideas: “After the same manner that the ideas of these original qualities are produced in us, we may conceive that the ideas of secondary qualities are also produced, viz. by the operation of insensible particles on our senses” [II, viii, 13]. But it should be obvious that this does not mean that we are caused to have ideas of the qualities of those particles.

16 In one place, Locke skips the mediating step.

The particular bulk, number, figure, and motion of the parts of fire or snow are really in them,—whether any one’s senses perceive them or not: and therefore they may be called real qualities, because they really exist in those bodies. But light, heat, whiteness, or coldness, are no more really in them than sickness or pain is in manna [II, viii, 17].

Here again, the idea is not that light, heat, whiteness, or coldness is not real; after all, sickness and pain are real enough. The point is rather that light and the rest are not really qualities.

17 He also seems to have been vaguely aware that the Newtonian law of gravitation constituted a prima facie exception. See Cambell Fraser’s first footnote to II, viii, 11 (p. 171 in the Dover edition of the *Essay*) concerning a revision in response to a promise to Stillingfleet.
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rule. This does not explain a power: we may very sensibly ask why something has a certain power—that is, why it behaves in conformity to a certain rule. But this is another inquiry. Since secondary "qualities" are powers, to be red is to behave in conformity with a certain rule. In this case the rule is that visual confrontation with the object typically or normally causes red-ideas. Let us call this the red-rule. When we perceive that something is red, what we come to know is that the thing in question behaves in accordance with the red-rule. We will not trouble about for the moment except to say that it is what makes it legitimate to say that the thing conforms to the rule because it is round. We cannot do this in the other case. Once we say that redness is a power, we have said that to be red just is to obey the red-rule, and we cannot, except as a joke à la mode de Molière, go on to say that a thing obeys this rule because it is red. We must do one of three things instead. (1) We can say that the power is a brute power—that is, that there is no reason why the things which obey the red-rule obey it; they just do, that being the nature of things. (2) We can say that there is some other rule or rules which the thing obeys, or its parts obey, such that anything which obeys this rule is bound to obey the red-rule as well. Finally, (3) we can say that there is some real quality or qualities of the thing or its parts such that anything with that quality or those qualities is bound to obey the red-rule.

(1) is evidently implausible in the case of colors and the like, as the work of Boyle and others had already demonstrated by the time Locke wrote the Essay. (2) by itself can only be a delaying action; eventually we shall have to adopt either the first or third line about our rules. Long familiarity with various irreducible inverse square laws has left us resigned to (1), if not happily married to it. But Locke adhered to a sterner doctrine, which shuns inexplicable powers. According to this doctrine, there must be something we can say about bodies other than that they obey certain rules, something categorical and monadic and explanatory. It is a strong vision. To be a round peg is not simply to have the power to fit round holes; rather, round pegs and holes fit each other because they are round, and this is ultimately how all explanatory problems are to be resolved.

The distinction between a quality and a power, then, is the distinction between behaving in conformity to a rule on the one hand, and that in the things themselves which ultimately accounts for the conformity on the other. The usefulness of this distinction rests on the
acceptance of a certain explanatory program. Once we acquiesce in brute powers, the distinction retains little interest; it acquires its life from its role in articulating the "sterner doctrine" about explanation. The doctrine and the distinction go together, and since the doctrine is not without its merits, neither is the distinction.\(^{18}\)

This explains the distinction between qualities and powers and incidentally gives us a deeper understanding of the Causal Thesis.\(^{19}\) So we can now see our way clear from the idea that secondary qualities are "powers barely" (the Analytic Thesis) to the claim that they are not really qualities in things at all. But we are not quite out of the woods yet. As I remarked earlier, Locke does not say that yellowness is not a quality in the gold, but a power in gold to cause yellow-ideas; what he says is that yellowness is not in gold, but a power in gold to cause that idea in us. I said earlier that this is sloppy expression. If my interpretation is correct, Locke cannot have meant to say that yellowness is literally an idea. Unfortunately, this sort of formulation is not an isolated phenomenon, tucked harmlessly away in a chapter on complex ideas of substances: it crops up frequently in the crucial eighth chapter of Book II. I shall try to mitigate this embarrassment by showing that the most important occurrences of the problematic formulation are in passages in which Locke is trying to make a point that is not seriously affected by how the Containment Thesis is formulated. At one point the argumentation makes the troublesome formulation particularly tempting, but at no point does the argument require us to suppose that Locke's lapse into that formulation is more than just that: a regrettable but (in context) harmless lapse.

The most important occurrence of the lapse is in II, viii, 16 and 18. These sections are important in themselves if only because they haunt Berkeley's first Dialogue, so it will be worth considering them in some detail. Here is the heart of Section 16.

[H]e that will consider that the same fire that, at one distance produces in us the sensation of warmth, does, at a nearer approach, produce in us the far different sensation of pain, ought to bethink himself what reason he has to say—that this idea of warmth, which was produced in him by the fire, is actually in the fire; and his idea of pain, which the same fire produced in him in the same way, is not in the fire. Why are whiteness and coldness in snow, and

\(^{18}\) See my "Dispositions, States, and Causes" (Analysis [June, 1974]) for some further discussion of this and related points.

\(^{19}\) Though more complete, this really goes no deeper than what Bennett very explicitly provides in his account of the Causal Thesis (p. 104).
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pain not, when it produces the one and the other idea in us; and can do neither, but by the bulk, figure, number, and motion of its solid parts.\(^{20}\)

Section 18 simply changes the example:

\([M]\)en are hardly to be brought to think that sweetness and whiteness are not really in manna; which are but the effects of the operations of manna, by the motion, size, and figure of its particles, on the eyes and palate: as the pain and sickness caused by manna are confessedly nothing but the effects of its operations on the stomach and guts, by the size, motion, and figure of its insensible parts.

The first point to be made is that, assuming the "sterner doctrine," these passages are stalking around a perfectly legitimate point—namely, that when we perceive that something is white and discover that it makes us sick we come to have the same sort of knowledge, knowledge of a "power barely." In neither case do we learn about the object the sort of thing which could have real explanatory power. Saying that manna causes a white-idea because it is white is exactly on a par with saying that it causes sickness because it has a power to cause sickness. Elsewhere, Locke chooses an example which jogs this point into the foreground.

\([A]\)ll which secondary qualities, as has been shown, are nothing but bare powers. For the color and taste of opium are, as well as its soporific or anodyne virtues, mere powers, depending on its primary qualities, whereby it is fitted to produce different operations on different parts of our bodies [II, xxiii, 8].

Locke is evidently concerned that the existence of words like "white" and "sweet" should not mislead us into thinking that "x is white" or "x is sweet" conveys the sort of information conveyed by attributions of real qualities. This concern does not explain the lapse, but it does put a better face on it: the fact that Locke expresses himself in the way he does need not seriously obscure the point.

Given the point Locke is after, it would help if there were a common way of expressing the fact that opium is white which has the same form as "opium causes sleep." What he has is "opium causes ideas of whiteness." This is fine, if we understand it to mean that opium causes white-ideas—that is, that opium causes ideas typically or normally caused by white things. Locke sometimes does understand "ideas of φ-ness" in this way. But frequently he understands it in a way which makes φ-ness an idea, rather than the cause of one. On this under-

\(^{20}\) Locke offers this in defense of the Resemblance Thesis, thus confirming my view that the Resemblance Thesis depends on the Containment Thesis, and not the other way about, as Curley would have it (Curley, op. cit., p. 451).
standing we have whiteness as an effect of opium on perceivers, like sleep. There is a pressure in the passages under discussion to understand the ambiguous "ideas of \( \phi \)-ness" in this way: Locke's point is that to see that opium is white is simply to infer a power from an effect, just as we infer the soporific power from our falling asleep. Locke simply confuses what we infer from (idea) with what we see (whiteness). The mistake was probably facilitated by his double use of "perceive" as a generic perception verb and as a term for the having of an idea. We infer the power from what we perceive—that is, from an idea; this is the technical usage. But what we perceive is whiteness; this is the generic usage. Hence, whiteness is an idea. This illustrates a confusion which almost certainly had some influence. But it must be admitted that Locke had a prior tendency to think all quality words, "roundness" as well as "whiteness," apply to ideas. I will return to this point in the section following.

Before leaving the Containment Thesis, there is one further matter I should like to mention. Locke takes a shot at explaining why there is a tendency to regard secondary qualities as real qualities rather than as powers. One would expect him to say that the language misleads us, those powers for which there are single words being taken for qualities, and others not. As to why some powers have simple names and not others, he could say, as he does about relations, that those have simple names which people have found most occasion to refer to in ordinary conversation. But he does not say any of this.

Instead, he says that we can readily see that there is no resemblance between the sun and the melting of wax which it has the power to effect; we can see this simply by comparing the sun and a melting episode. So we regard wax-melting as a bare power of the sun. But since we cannot compare an object and the ideas it causes, we assume something in the object resembling our ideas. Bennett says that this will not bear scrutiny,\(^{21}\) but it will bear some. What the assumption of something in the object resembling a \( \phi \)-idea amounts to is the assumption that the object’s being \( \phi \) explains its power to produce such ideas. Now we can readily see that the liquification of the wax is not explained by the sun’s being liquid. But it takes a commitment to atomism and a Robert Boyle to show us that we cannot explain an object’s power to produce red-ideas by appeal to its redness.

I have taken the space to scrutinize this passage in Locke precisely because it is a point in favor of my over-all interpretation that it makes

\(^{21}\) Bennett, p. 110.
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his reasoning here scrutable. On my reading, Locke has not, perhaps, explained why powers are mistaken for qualities, but he has given a reason for thinking that the real qualities will be difficult to identify, and that is close enough.

TWO ASSUMPTIONS DEFENDED

The Causal Theory of Perception. That Locke held seeing, hearing, tasting, feeling, or smelling something to be a matter of having ("perceiving") an idea caused by a sensory confrontation with that thing is surely beyond question. The only serious issue is whether, as is sometimes maintained, Locke held in addition that the crucial idea must resemble the object in some way. The usual name for this latter alternative is the Representative Theory of Perception. This is a misnomer if it is meant to capture the alternative just outlined, for something may represent something else without resembling it in any way. Still, it is the usual label, and I shall retain it.

The idea that Locke held, or at least was committed to, a representational theory derives in part, I think, from a naïve understanding of the Resemblance and Containment Theses. The reasoning goes this way. To perceive that \( x \) is \( \phi \) requires that \( x \) appear to be \( \phi \), and that \( x \) really is \( \phi \). According to Locke, for \( x \) really to be \( \phi \) is for there to be something in \( x \) (Containment Thesis) resembling the appearance (idea) of \( \phi \) (Resemblance Thesis). Thus, Locke must say that perceiving \( x \) to be \( \phi \) requires a resemblance between \( x \) and the idea of \( \phi \). It should be evident from the discussion above how naïve this reasoning is. The

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22 A complete treatment of the Lockean concept of a real quality would have to deal with Locke's treatment of relations. Locke makes it quite clear that relations are not qualities of things "but something extraneous and superinduced" by the mind (II, xxv, 8). This is important in itself, but he also says that powers are "nothing else but so many relations to other substances" (II, xxiii, 37). I suspect Locke's distinction between powers and relations on the one hand and qualities on the other is sometimes ignored because Locke concedes that some of the qualities he calls primary are relative (II, xxi, 3). But this is no more serious than the fact that solidity—the most central quality of body per se—is a power as Locke defines it (II, iv, 1). And in any case, Locke admits that some of his illustrations of qualities may be relations and hence not really "within things" (IV, iv, 11), and that the qualities he has attributed to the ultimate particles may not actually belong to them (IV, iii, 11). The distinction apparently runs deeper than the illustrations he chooses.
Containment Thesis, properly understood, tells us that $x$ can really be white even though whiteness is not a real quality of $x$. The Resemblance Thesis tells us that perceiving a real (that is, primary) quality $\phi$ will typically involve having a resembling idea—that is, an idea the typical causes of which cannot be specified except as things which are $\phi$. There is no way to put these together to yield a Representative Theory without conflating "really being $\phi$" with "having a real quality."

There is another source of the feeling that Locke was a representationalist.

It is evident the mind knows not things immediately, but only by the intervention of the ideas it has of them. Our knowledge, therefore, is real only so far as there is a conformity between our ideas and the reality of things. But what shall be here the criterion? How shall the mind, when it perceives nothing but its own ideas, know that they agree with things themselves? This, though it seems not to want difficulty, yet, I think, there be two sorts of ideas that we may be assured agree with things [IV, iv, 3].

This is again a case of naïve (or worse) interpretation. For in the very next line, Locke tells us that all simple ideas exhibit this conformity or agreement, and the examples he gives in this section are, like all the examples he gives of such conformity or agreement in Book IV, ideas of secondary qualities—bitterness and whiteness in this case. Not only does IV, iv, 3-4 not support the idea that Locke was a representationalist, it is plainly incompatible with that idea. Of course, one could retain the view that Locke was committed to a representative theory, and cite this passage as an outstanding instance of the supposed contradictory character of the Essay, but this would be philosophically uninteresting at best.

In any case, the issue is settled beyond serious dispute when we examine Locke's account of what the conformity in question comes to.

By real ideas, I mean such as have a foundation in nature; such as have a conformity with the real being and existence of things, or with their archetypes. . . . Our simple ideas are all real, all agree to the reality of things: not that they are all of them the images or representations of what does exist; the contrary whereof, in all but the primary qualities of bodies, hath been already shown. . . . But whether they answer to those constitutions, as to causes or patterns, it matters not; it suffices that they are constantly produced by them [II, xxx, 1-2].

And in the next chapter:

Those [ideas] I call adequate, which perfectly represent those archetypes which the mind supposes them taken from. . . . All our simple ideas are adequate. Because,
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being nothing but the effects of certain powers in things... they cannot but be correspondent and adequate to those powers... For, if sugar produce in us the ideas which we call whiteness and sweetness, we are sure there is a power in sugar to produce those ideas in our minds, or else they could not have been produced by it [II, xxxi, 1-2].

This brief discussion should suffice to show that it is not the Representative Theory, but the Causal Theory, which represents Locke's analysis of perception statements.

The Idea Identification Convention.

Thus a snowball having the power to produce in us the ideas of white, cold, and round,—the power to produce those ideas in us, as they are in the snowball, I call qualities; and as they are sensations or perceptions in our understandings, I call them ideas; which ideas, if I speak of sometimes as in the things themselves, I would be understood to mean those qualities in the objects which produce them in us [II, viii, 8].

In the latter part of this passage, Locke tells us that when, as in the earlier part of the passage, he speaks of ideas as in things, he means the qualities in things which cause those ideas. The tone of the passage makes it sound as if Locke will do this only infrequently, when precision on this point is not important. But in fact Locke almost always speaks in this way. As already noted, the passage in which the warning occurs is a case in point.

Why should Locke think that it will be convenient to speak of qualities obliquely as if they were ideas? The only possible explanation is that he was thinking that ideas are more easily identified and described than qualities. This is false, and Locke sometimes seems to realize it (for example, in II, iii, 2). In fact, the dependence goes the other way: the only way to describe or identify the red-idea is as the sort of idea one typically or normally has when seeing something red. But there are powerful and central forces in Locke's thought which hinder him from appreciating this fact. First, Locke shares with Descartes the view that ideas are what we know best. And second, ideas are what most words "stand for" according to Locke; certainly quality words stand for ideas on his view. Both these doctrines are, even in their Lockean forms, compatible with the dependence of idea identification on thing and quality identification, but this is a subtle matter which has emerged only rather recently and which we can plausibly suppose Locke to have missed.

Now someone who thinks it more convenient to identify a quality as a cause of a specified idea than to identify it straight out must think that the available descriptive vocabulary applies directly and primarily
to ideas. And someone who thinks that will in fact write as if he had adopted the Idea Identification Convention. This is all that my account of the Resemblance Thesis requires. For what I presented was not an argument for the Thesis, but an explanation of how someone who wrote and thought as Locke did would come to express the Causal Thesis in the language of resemblance.

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23 Perhaps it is worth pointing out that this “manner of speaking” does not, as Locke’s example makes clear, discriminate between primary and secondary qualities, and therefore cannot be a source of the Containment Thesis. It does change the perspective, though. Rather than seeing the Containment Thesis as an attempt to get secondary qualities out of the object, it now appears as an attempt to get primary quality ideas out of the mind. It is this perspective rather than any explicit claim on Locke’s part which justifies whatever truth there is to the view that he thought secondary qualities were “in the mind.”