

Locke on Qualities

JOHN CAMPBELL , Wolfson College, Oxford

Locke's division between primary and secondary qualities in chapter viii of Book II of the *Essay*¹ is a hardy philosophical perennial which has weathered centuries of misrepresentation. Gradually, however, a new dawn in Locke scholarship is breaking, in the light of which it transpires that the importance and interest of the dichotomy belongs not to classical philosophy of perception but to philosophy of science. The excellence of current Locke exegesis, however, should not blind us to the fact that recent readings are in urgent need of supplementation: and one aim of this paper is to show how this might be achieved.

I shall have little to say on the contemporary relevance of Locke's account. I think, however, that we may appreciate the force of his discussion rather better if we see him as grappling with a curious conceptual tension which is still with us. For in our uncritical moments, we yet tend to think of qualities of objects (e.g., colour) as somehow pasted onto them, and, with the coming of a theory of microstructures, we

1 John Locke *An Essay concerning Human Understanding*. All references are to the Clarendon edition edited by P. H. Nidditch.

think of microstructures as what the qualities are pasted onto — hence the currently fashionable contrast between *superficial* properties vs. *internal* essences. Yet when spelt out, this picture is obviously untenable (what happens when we slice an object in two?). Locke, I submit, provides an alternative.

Section I is devoted to the definitions which, I shall argue, constitute the framework of II, viii of the *Essay*.

I

My first contention is that Locke's development of a distinction between types of quality is both careful and coherent. This contention is uncommon; for example, offhand dismissal is the currently popular treatment of the first, and often of the second, of Locke's three preliminary definitions, viz.:

- (1) A quality of *x* is a power of *x* to produce any idea in our mind. (II, viii, 8).
- (2) Primary qualities of body are those which are utterly inseparable from it; are such as sense finds constantly in every perceptible particle of matter, and the mind finds inseparable from every particle. (II. viii. 9).
- (3) Secondary qualities are nothing in objects themselves but powers to produce various sensations in us by their primary qualities. (II. viii. 10).

In justice to the current treatment, it must be admitted that there is considerable initial tension between these three. Locke clearly considers the primary/secondary distinction exclusive; yet *prima facie* there is no reason to suppose that no quality satisfies both (2) and (3), and no explicit argument for this supposition is provided. Why then should the distinction not be drawn as one between those qualities satisfying (e.g.) (3) and the rest? More serious problems arise from (1): Locke argues that *all* sensations are *only* produced in us by the primary qualities of bodies; therefore, apparently, everything satisfying (1) satisfies (3); therefore (given exclusiveness) there are no primary qualities, and *a fortiori* no primary qualities of bodies which produce our sensations, and thus no secondary qualities either. These surface tensions may, then appear to constitute a *reductio* of Locke's entire discussion.

Some commentators (e.g. Bennett,² Alexander³) evade the problem by tactfully rejecting (1); Mackie is more explicit, however, arguing that Locke's "usage is partly inconsistent with this proposal [(1)] for what he identifies as *primary qualities* are 'solidity, figure motion or rest, and number' and these are not powers: rather they are intrinsic properties of things which may be the grounds or bases of powers"⁴ — only partly inconsistent, Mackie thinks, for he holds that secondary qualities *do* satisfy (1).⁵ From this view, that only satisfiers of (3) satisfy (1), the above *reductio* immediately follows. Mackie holds this view on the grounds that it is just obvious that (e.g.) solidity is not a power. Earlier in the *Essay*, however, we find Locke tentatively identifying solidity with the power of impenetrability;⁶ thus the appeal to intuition here seems unlikely to be finally satisfactory.

Moreover, one of the first arguments Locke develops in II, viii depends on a corollary of (1);

(1a) (ϕ is a quality) \Rightarrow (ϕ is a power to produce ideas in us).⁷

The argument runs:

- (A) The only way we can conceive bodies to operate in is by impulse.⁸ So since bodies are not united to our minds when they produce ideas in it, some singly imperceptible particles must come from them to the eyes, and thereby convey to the brain some motion which produces those ideas we have of them in us.

2 J. Bennett, *Locke Berkeley, Hume: Central Themes* (Oxford U. P., 1971) Ch. IV; cp., e.g., pp. 103-4.

3 P. Alexander, "Boyle and Locke on Primary and Secondary Qualities", reprinted in I. C. Tipton (ed.) *Locke on Human Understanding* (Oxford U. P., 1977); cp., e.g., p. 65.

4 J. L. Mackie, *Problems from Locke* (Oxford U. P., 1976) p. 12.

5 *Ibid.*

6 II. iv. 1.

7 I defer consideration of the question of how "insensible parts" may be said to possess qualities. (But cp. IV, xvi, 12 here.)

8 The same point, incidentally, is made at IV. ii. 11.

- (B) Therefore all ideas of quality are produced by the primary qualities of insensible particles.
- (C) Therefore primary qualities really exist in the objects themselves, whereas secondary qualities are nothing in the objects themselves *but* powers to produce various sensations in us.⁹

Now for the moment the point to note is this: the premisses of the argument refer only to the explanation of the powers of bodies to produce ideas in us; the conclusion is a thesis dealing generally with *all* qualities. Thus, given the form of the argument alone, it seems that either it is seriously incomplete, or that it relies on (1a), which states that all qualities are powers of bodies to produce ideas in us. Charity then appears to dictate that we attribute (1a) to Locke — but does not this threaten to reinstate the *reductio*? Surely, however, there are other ways of escaping the *reductio* than by denial of (1a), and consequently of (1): we might, for example, look to Locke for a distinction between those qualities which are (*inter alia*) powers to produce ideas in us, and those which are (nothing but) powers to produce ideas in us. That is, we might read (1), not as a strict identity, but as a biconditional; the conjunction of (1a) and its converse.

Let us turn to the role of (2) in Locke's argument. It is usually supposed that the distinction between qualities conceptually inseparable from body and qualities not so inseparable is but one of many distinctions Locke is simultaneously drawing in II, viii, but that it is unrelated to those others — perhaps doubts about maintaining the exclusiveness of the primary/secondary split on any other interpretation partly account for this. Bennett¹⁰ and Alexander¹¹ exemplify this line. Now both writers agree¹² that for Locke, the primary qualities may be picked out by reference to thesis (B); the primary qualities are all and only those used in explaining our ideas of qualities. How are some qualities to be selected as explanatory? Is it a matter of trial and error, requiring massive experimentation? Alexander writes that the strategy is just to try to divide all qualities "into two groups, one as small as possible, the other as large as possible, such that the smaller group can plausibly be

9 II. viii. 11-15.

10 J. Bennett, *Locke, Berkeley, Hume*, p. 105.

11 P. Alexander, "Boyle and Locke", p. 68.

12 *Ibid.*

made the basis for explanation of, *inter alia*, our ideas of the larger".¹³ According to Bennett, certain qualities are singled out as explanatory in "the *de facto* absence of any other suitable candidate" and notes with pleasure that Locke concedes that our perceptions *may* not depend upon the primary qualities of insensible particles, but "upon something yet more remote from our comprehensions". (IV. iii. 11)¹⁴ Now it seems to me that both authors miss the largely *a priori* character of Locke's reasoning in II. viii. 11-14. Note that the only expressly empirical premiss in Locke's argument (A) for the necessity of the appeal to insensible particles in explaining perception is the statement that external objects are not united to our minds when we perceive them; consider then what qualities may be possessed by insensible particles. Clearly, they *must* possess all those qualities conceptually inseparable from body — else they would not be bodies. Could they possess any qualities which were nothing but powers to produce ideas in us? Clearly not, else they would not be insensible. Thus we see, not only that definition (2) is a functional part of Locke's argument for thesis (B), but that the primary/secondary split generated by (2) and (3) is indeed exclusive. If this is accepted, then, I submit, the passage cited by Bennett should *not* be read as saying that we might appeal to some other qualities of insensible particles than those conceptually inseparable from body; rather, it must be read as saying that since the existence of insensible particles is but hypothesis, it might be false, though we cannot at present even conceive of any alternative explanations of perception.

This account of Locke's argument is, I think, obviously preferable to that of Bennett or Alexander, according to whom Locke has stated his definition (2) carefully and at length only to ignore it for the remainder of his discussion. Mackie, however, reads II. viii. 9 not as a definition, but as an argument for supposing that the particular qualities Locke calls "primary" are indeed fundamental in explanation. But, Mackie replies to Locke's "argument": "If the mind discriminates thus [i.e. singling out as primary certain qualities] it will be because it has already adopted the distinction: this cannot be the evidence on which the distinction itself is based".¹⁵ The reply here is that Mackie has failed to notice that two related distinctions are involved here: we can only understand his criticism on the supposition that he takes Locke to be contending that it is self-evident that some qualities, viz., those listed as primary, are all we

13 Ibid.

14 Ibid.

15 J. L. Mackie, *Problems*, pp. 20-21.

need to invoke in explaining the facts of perception. If indeed Locke held this rationalist view, however, it is a little difficult to see why, on Mackie's account, he should have thought the remainder of his discussion necessary or useful.

There is then at least a *prima facie* case for taking seriously Locke's lengthily expounded definitions; but let us note two difficulties in maintaining all three. The power to produce an idea of green if examined before *t*, or the idea of blue if not so examined, is clearly a power to produce ideas in us; but can it plausibly be held to be a quality? Secondly, if all qualities are powers to produce ideas in us, how can insensible particles, which have no such powers, have any qualities?

I shall now state in contemporary terms what I take to be Locke's main thesis, show how he argues for it, and display how it copes with these points.

II

The possession of any power by any body can be explained in terms of the fine structure, the microphysical constitution, of the body. Some powers are such that all objects possessing them do so in virtue of one and the same fine structure; some are not. My contention is that Locke's "primary" qualities are, *inter alia*, powers (to produce ideas in us) of the first kind; the "secondary" qualities are powers (to produce ideas in us) of the second. Now if all and only objects with a certain fine structure have a power ϕ , then it is reasonable to suppose that an object's possession of that fine structure, and consequently of ϕ , will reveal itself not just through manifestations of ϕ , but in many and various of the object's interactions with others. That is, all objects possessing a primary quality may be expected to have many more powers in common than the power to produce an idea in us. (To see this, remember that the only justification we have for supposing that a certain class of objects has a common fine structure is that, roughly, we are thereby enabled to subsume a large number of macroscopic regularities under a small number of microscopic regularities.) If we now identify the primary quality with the sum of those powers, we arrive at what we sought earlier: a clear reading of the claim that primary qualities are, *inter alia*, powers to produce ideas in us.

It might be protested: if this distinction is Locke's, why did he not make it explicit? Consider, however, that in our time we have a well-established atomic theory: consequently, notions such as "microphysical constitution" are now readily intelligible to the layman.

What analogous notions were available to Locke? The notion of “texture” was a technical term of Boyle’s; a lengthy exposition of it would have seemed inappropriate to one who apologises for being overly “engaged in physical enquiries” already in II. Viii.¹⁶ All that remains is that battleground for conflicting schools, the notion of “real essence”, use of which would have obscured rather than clarified Locke’s point. It is then hardly surprising that Locke provides no clear and succinct statement of the dichotomy intended; there were none available.

The major objection to the line I shall canvass, however, is this: there are, apparently, a host of qualities such that all objects possessing them do so in virtue of one and the same structure — the qualities, e.g. of being gold, of being acid, of being magnetic. And none of these are listed as primary by Locke. Yet, given his sophistication concerning “real essences”, is it not incredible that Locke should not have done were he using the notion of “primary” I have defined?

In reply, we first note that throughout “Further Considerations Concerning Simple Ideas” the distinction between simple and complex ideas is never once invoked. If those considerations do specifically concern simple ideas, therefore, we are surely intended to read “simple idea” for “idea” throughout. In particular, we must rewrite (1) as:

(1b) ϕ is a quality $\Leftrightarrow \phi$ is a power to produce a simple idea in us.

(The singular article is motivated by the need to eliminate the claim of “grueness” to qualityhood, and plainly achieves this end.) The reply to the objection is now immediate: goldness does not qualify as primary on our definition. For a primary quality is a sum of powers such that all objects possessing one of them, a power to produce a simple idea in us, do so in virtue of a common fine structure, possession of which structure by an object also results in its having the rest of that sum of powers. That is, the sum is effectively determined by one of its constituents which is a power to produce a simple idea in us. Now if goldness is primary, then which such power determines the sum with which it is to be identified? The power to produce the idea of yellow in us? The power to produce the idea of malleability in us? Clearly none of these will do: and the conclusion is, then, not just that goldness is not primary, but that it is not a quality at all, for it is not, (even, in the sense defined, *inter alia*) a power to produce a simple idea in us. As for acidity and magnetism, they are not powers to produce ideas in us at all, but powers to interact with other bodies in certain ways. Our interpretation

16 II. viii. 22.

thus rings true; given Locke's adherence to (1b), it seems that we must draw some distinction between the qualities that are nothing but powers, and those that are, *inter alia*, powers to produce simple ideas in us. And there is, so far, no objection to the definition of "*inter alia*" I have given; shortly, I will adduce evidence to show that it is Locke's. Two points first, however.

(1) On the assumption that this interpretation is correct, we may reply to a criticism of, *inter alia*, Locke raised by J. J. MacIntosh in the course of his useful review of the primary/secondary literature:

We are, to put it shortly, owed a doctrine of qualities as a prerequisite to a doctrine of primary and secondary qualities, for the intelligibility of the one presupposes the intelligibility of the other. But I know of no such doctrine.¹⁷

The problem MacIntosh then propounds is that, in the absence of such a doctrine, all predicate-expressions may be taken to be quality-ascribing; but, e.g., "is the only even prime", "is a manufactured article", "marks a turning point in the course of the campaign", "don't seem to fit at all happily in the primary/secondary boxes".¹⁸ On our reading of Locke, this is no surprise, however, for those expressions are clearly not counted as *quality*-ascribing.

(2) There is running through II, viii of the *Essay* a tendency in Locke to hold that the secondary qualities are not qualities at all. Since the popular view rejects (1b), Locke's only attempt to say what a quality *is*, as a slip of the mind, the popular view is understandably in some difficulty when it encounters such claims. Consider, however, the following passage:

. . . *Manna* by the Bulk, Figure, Texture, and Motion of its Parts, has a Power to produce the Sensations of Sickness, and sometimes of acute Pains, or Gripings in us. That these *Ideas of Sickness and Pain* are not in the *Manna*, but Effects of its Operations on us, and are no where when we feel them not: This also every one readily agrees to. And yet Men are hardly to be brought to think, that *Sweetness and Whiteness* are not really in *Manna*. . . (II. viii. 18)

Manna has a power to produce the simple idea of pain in us (that power is (in the sense defined) "nothing but" a power) — nevertheless it is surely not a quality of the *manna*. The example makes trouble for Locke's definition (1b); but, Locke thinks, it is only by

17 J. J. MacIntosh, "Primary and Secondary Qualities" in *Studia Leibnitiana*, 8 (1976), p. 102.

18 *Ibid.*

preserving (1b) that we can preserve the common way of speaking, under which colours, tastes, etc. are qualities. So the options here are two: we can preserve (1b) at the cost of accounting the power of manna to produce pain a quality; or we can reject (1b) as worthless, along with the claim that (e.g.) colours are qualities.¹⁹ Locke clearly thinks we should take the latter route, and so presumably has a preferred definition of “quality” which, interestingly, he does not explicitly state — because, I submit, it would lead him too far into physical enquiry to expound it. Let us now see Locke’s use of our definition in action.

In the absence of direct access to the fine structures of objects, how may we determine whether a quality is primary or secondary? As an immediate consequence of our reading of “primary” we have it that one way is to ask the following question: how does any object’s possession of that quality reveal itself? In a wide variety of ways, or only through producing some simple idea in us? So consider, then, Locke on establishing that the “light, heat, whiteness or coldness” of fire or snow are secondary:

Take away the Sensation of them; let not the Eyes see Light, or Colours, nor the Ears hear Sounds; let the Palate not Taste, nor the Nose Smell, and all Colours, Tastes, Odors, and Sounds, as they are such particular *Ideas*, vanish and cease, and are reduced to their Causes, i.e. Bulk, Figure, and Motion of Parts. (II. viii. 17)

In the absence of sensory organs, there are no longer any ideas of those qualities; all “as they are *ideas*, vanish and cease.” In this absence, how, if at all, does an object’s possession of them reveal itself? It is true, as

19 A subsidiary attack on the “common notion” of qualities is developed in II. viii. 10: if all powers to produce simple ideas *in us* are accounted qualities, so too should all powers *simpliciter*. Yet the “common notion” does not make this move; retaining an unscientific emphasis on the importance of man in the universe.

Locke nevertheless seems to have been unhappy with the dichotomy between accounting only primary qualities as qualities and retaining the “common notion” which seems to allow the powers to produce pleasure and pain the status of “quality”. So in III. iv. 16 he tries again, defining “quality” as “power to produce a simple idea which comes into the mind by only one sense”: excluding the powers to produce pleasure and pain, but also, as Locke notes, all the primary qualities from qualityhood. So this revision is swiftly abandoned; in III. vi. 29 “shape” is referred to as a quality and in III. vi. 30-2 simple ideas and qualities are identified outright. Seeking the intentions behind these latter formulations, it seems only fair to suppose that we are by Book IV back with the original definition of II. viii. 8.

Locke points out, that for each constituent particle, each of its qualities of bulk, figure and motion still reveals itself. But that is all: no powers which are constant concomitants of an object's possession of the quality are thereby revealed. Therefore we may conclude that none of those qualities are such that all objects possessing them do so in virtue of one and the same fine structure.

Locke backs this up with an argument in which he clearly uses his preferred definition of "quality" (which, I urge again, is none other than our definition of "primary"):

Let us consider the red and white colours in *Porphyre*: Hinder light but from striking on it, and its Colours Vanish; it no longer produces any such *Ideas* in us: Upon the return of Light, it produces these appearances on us again. Can any one think any real alterations are made in the *Porphyre*, by the presence or absence of Light; and that those *Ideas* of whiteness and redness, are really in *Porphyre* in the light, when 'tis plain *it has no colour in the dark*? It 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, 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, but such a texture, that hath the power to produce such a sensation in us (II. viii. 19).

There is an echo of the "manna" argument in the appeal to the "obvious" fact that porphyry has no colour in the dark, and the silent use of the preferred definition (as opposed to (1b)) when maintaining that whiteness and redness are *not* in it: but I take it that the main point is the following. The absence of light brings about no changes in the fine structure of porphyry — no "real alterations" — and therefore no changes in its powers to produce ideas in us. So its redness, i.e. the power it has to produce ideas of red in us, is a *limited* power; limited in a way unlike the qualities cited as primary, which are accessible under *almost* all circumstances to the sense of touch. All powers have their conditions of course: but the point here, I take it, is that even when we restrict ourselves to the production of ideas in us, the regularities governing secondary qualities are much more limited than those governing primary qualities. And this point, I submit, could only be used to show that colour qualities are not, in the sense I have defined, primary.

Furthermore, having grasped the nature of Locke's distinction, and that felt temperature is secondary while shape is primary,

. . . we may understand, how it is possible, that the same Water may at the same time produce the Sensation of Heat in one Hand, and Cold in the other; which yet Figure never does, that never producing the *Idea* of a square by one Hand, which has produced the *Idea* of Globe by another. (II. viii. 21)

And this, clearly, is nothing but the point of II. viii. 19 over again.

Yet, as we saw earlier, Locke's definition (2) of "primary" is initially used to derive, in II. viii. 13, the claim that all our ideas of qualities are to be explained by reference to the primary qualities of insensible parts. From this it is inferred in II. viii. 14 that all powers to produce ideas of secondary — and equally, presumably, of primary — qualities are to be thus explained. Therefore, from our reading of (1b), the possession of any quality by an object may be explained by reference to the primary qualities of insensible parts. What is the connection between this notion of "primary" and the one I have defined?

I have maintained that Locke in effect argues from cases to the coextensiveness of the two. Even if he is correct, however, why should this coextensiveness be thought to be of any importance? To approach the point, let us consider the query noted earlier: how can Locke talk of ascribing any qualities to insensible particles, given his adherence to (1b)? The rationale should I hope be obvious by now: if, as I have suggested, a primary quality is the sum of a very large number of powers, then the justification for attributing such a quality to an insensible particle is simply that the particle possesses all, save one, of the relevant powers. Indeed, what other rationale might there be for attributing one and the same quality to both a macroscopic and a microscopic object? Now suppose that the two notions are not coextensive; that, for example, some of the qualities which it is necessary to ascribe to insensible particles in providing scientific explanations are not primary in the sense I have defined — let ϕ be one such quality. Then the corpuscular program, of providing detailed explanations of phenomena in terms of the qualities of insensible particles, will simply be impossible of achievement. For ascription of ϕ to some insensible parts is *ex hypothesi* necessary for completion of the program; yet since ϕ is not primary in the sense I have defined, there can be no justification ever for attributing it to an insensible particle. Thus it is not surprising to find Locke, as an underlabourer for the corpuscularians, not only advancing the considerations already described in favour of coextensiveness, but attempting to make it further plausible to the layman that even in explaining colours and tastes, it is not necessary to appeal to qualities which are not obviously primary in the sense I have defined:

Pound an Almond, and the clear white *Colour* will be altered into a dirty one, and the sweet *Taste* into an oily one. What real *Alteration* can the beating of the Pestle make in any *Body*, but an *Alteration* of the *Texture* of it? (II. viii. 20).

It has been recognised²⁰ that Locke is here issuing a challenge: show me

20 P. Alexander, "Boyle and Locke", p. 72.

how the change in colour and taste can be causally explained otherwise than as a result of changes in the aggregate shape and size, and the motion or rest, of insensible parts. But the point of this challenge has not often been understood. Incidentally, it does not seem to matter whether some qualities primary in the sense I have defined turn out not to be conceptually necessary to body; there just seem to be none such. The important point is that all qualities "conceptually necessary", and therefore fundamental in explanation, be primary; and that there be no other qualities fundamental in explanation which are not, in the sense defined, primary.

There is then a strong *prima facie* case for the interpretation we have canvassed; let us briefly consider some alternatives. One current view is that the only distinction Locke is seriously concerned to draw is the causal one; between qualities fundamental in explanation and qualities not so fundamental — this is the view for example of Alexander and Mackie.²¹ One problem for this account is that the passages II. viii. 17, II, viii. 19 and II. viii. 21 already cited cannot possibly be construed as *arguments* for the causal distinction, though it is mentioned in all of them. One is therefore reduced, like Alexander,²² to contending that these passages *en bloc* are to be read as lengthy expositions (and hopelessly obscure expositions at that) of the causal distinction. If, like Alexander, one compounds the error by failing to spot the "a priori" argument for the primacy in explanation of those qualities conceptually inseparable from body, it appears that Locke is transmitting, with a minimum of argument (and no source-references) a distinction of Boyle's which is to be taken on trust by the reader. We ought to be careful that we do not count deficiencies of interpretation as sins of the interpreted: and we have seen already that we can make somewhat better sense of the passages II. viii. 17, II. viii. 19 and II. viii. 21.

Bennett and Mackie, however, make kindred points which might be thought to tell against our interpretation. Bennett argues that it is a fundamental assumption of western science that not all qualities are powers, and that therefore Locke cannot have held the contrary; Mackie²³ that the truth of the assumption is obvious, and must have been known to Locke. More explicitly, the "assumption" is that, if *x* has the power to be *H* under conditions *F*, then "there is some non-

21 "Boyle and Locke" *passim*; *Problems*, Ch. 1.

22 P. Alexander, 'Boyle and Locke', p. 70.

23 Mackie, *Problems*, pp. 14-15.

dispositional ϕ such that: x is ϕ , and it is a causal law that if anything is both ϕ and F then it is H .²⁴ The argument is already undermined by Locke's explicit statement and use of (1b), however: furthermore, the underlying intuition is surely accommodated by Locke's view that powers of macroscopic objects are to be explained by reference to powers of microscopic objects. And these latter powers may or may not be themselves explainable in turn. Incidentally, it is particularly surprising that Bennett is party to the prejudice against (1b). For surely his discussion of size vs. colour blindness suggests the importance of powers in Locke's argument.²⁵ Yet, failing to invoke the underpinning notion of "fine structure", that discussion yields, uselessly, at best a distinction between qualities which do, and qualities which do not, manifest their instantiation in many and various ways: a distinction, that is, of degree.

III

It seems to me that the crucial test of any interpretation of Locke's primary/secondary split is its ability to cope with the "resemblance" thesis of II. viii. 15. Now this passage presents a peculiar and not generally recognised problem. For initially at least it appears to be in some tension with Locke's insistence that *all* simple ideas conform to their archetypes (IV. iv. 4); are *real* (II. xxx. 2); *adequate* (II. xxxi. 2); or *true* (II. xxxii. 14). The terminological variations between these four theses reflect no substantive divergence; they are important only when the theses are stated for the case of e.g. our complex ideas of substances (cp. II. xxxii. 18). Locke supplies the same argument in support of each. Yet how, we may ask, can Locke maintain that *all* simple ideas "conform to their archetypes" while holding in II. viii. 15, that where our simple ideas of secondary qualities are concerned, "There is nothing like our *Ideas* existing in the Bodies themselves"?

I shall focus on the "conformance" claim, as being both more readily comprehensible than the "resemblance" thesis and supported by the clearest statement of Locke's quadruplicated argument.

24 Bennett, *Locke, Berkeley, Hume*, p. 104.

25 *Ibid.*, pp. 96-100.

Knowledge, Locke writes in IV. iv, is *real* only insofar as the ideas it concerns “conform to their archetypes”; only, that is, insofar as they fulfil their intended functions. Thus ideas of mixed modes, being their own archetypes, are bound to conform to them; those ideas being compounded from simples without any intention that they reflect features of the world (IV. iv. 5). Ideas of substances, however, are referred to real essences underlying nominal essences — it is in this that they are distinguished from ideas of mixed modes. They thus “conform to their archetypes” only if there are real essences of the required kinds (IV. iv. 11-12).

Simple ideas fall between those of mixed modes and those of substances. They are like ideas of mixed modes in invariably conforming to their archetypes, and like ideas of substances in that they are referred to something external: for each is intended to conform to some quality of objects.

The conformance is guaranteed by the fact that the mind cannot produce new simple ideas of itself: so the production of a simple idea in one’s mind must be the manifestation of the power of some external object to produce that idea.

Thus the “conformance” claimed appears to consist in there answering to (being the power to produce) each simple idea just one, actually instantiated quality which uniquely answers to that idea. Further, that idea will be the very one whose production in perception generally reveals the presence of the associated quality.

Locke states the point as follows:

... simple Ideas, which since the Mind, as has been shewed, can by no means make to it self, must necessarily be the product of Things operating on the Mind in a natural way, and producing therein those Perceptions which by the Wisdom and Will of our Maker they are ordained and adapted to. From whence it follows, that *simple Ideas are not fictions* of our Fancies, but the natural and regular productions of Things without us, really operating upon us; and so carry with them all the conformity which is intended; or which our state requires: For they represent to us Things under those appearances which they are fitted to produce in us: whereby we are enabled to distinguish the sorts of particular Substances, to discern the states they are in, and so to take them for our Necessities, and apply them to our Uses. Thus the *Idea of Whiteness*, or Bitterness, as it is in the Mind, exactly answering that Power which is in any Body to produce it there, has all the real conformity it can, or ought to have, with Things without us. (IV. iv. 4)

Incidentally, the use of “simple ideas” here plainly diverges from that in which Locke holds that there are “simple ideas” of reflection; for, just as with complex ideas, the mind alone is operative in producing ideas of reflection (cp. II. vi. 1).

Locke exegesis, rather than Locke criticism, is my object here; but the following points may be found suggestive:

- (1) Hume's "missing shade of blue" (*Treatise* I. i. 1²⁶) may be held by the sceptic with respect to conformance to show that even if it is plausible to suppose that there is a class of ideas not all of which can be produced by the mind alone, any one of them can be: so that we cannot tell *which* of our simple ideas actually owe their first entrance to the mind to an external cause.
- (2) Locke's cavalier and generally innocuous disregard of the fact that all powers have their conditions seems to lead him here to claim a result stronger than he is entitled to: for the qualities to which our simple ideas are held to conform are presumably powers to produce, *under normal circumstances*, those ideas in us. Thus the presence of a simple idea in the mind seems to yield no more than a rational presumption (given the *prima facie* reasonableness of supposing that normal circumstances obtain) that the appropriate quality is indeed instantiated.

IV

But now another question arises. We saw that for Locke an idea of substance conforms to its archetype only if there is a real essence of the required type; for ideas of substances are referred to real essences. Now throughout the *Essay* (cp., e.g., II. xxiii. 1-6; II. xxxi. 6-10; III. iii. 17; IV. iv. 13-17) Locke criticises various ways in which our ideas of substances might be thought to be so referred. His own view of how this "referral" occurs emerges most clearly at III. iii. 17:

Concerning the real Essences of corporeal Substances, (to mention those only,) there are, if I mistake not, two Opinions. The one is of those, who using the *Word Essence*, for they know not what, suppose a certain number of those Essences, according to which, all natural things are made, and wherein they do exactly every one of them partake, and so become of this or that *Species*. The other, and more rational Opinion, is of those, who look on all natural Things to have a real, but unknown Constitution of their insensible Parts, from

26 D. Hume, *A Treatise of Human Nature*, ed. Selby-Bigge (Oxford U. P., 1951).

which flow those sensible Qualities, which serve us to distinguish them one from another, according as we have Occasion to rank them into sorts, under common Denominations.

It appears, then, that an idea of substance conforms to its archetype only if all objects answering to the idea do so in virtue of one and the same fine structure. (On careful reading, Locke, even in the “zahab” example of III. vi. 46, reveals no appreciation of the importance of Kripkean “paradigms” here.) Thus, in the sections on the conformance to their archetypes of our ideas of substance, Locke maintains that given the current lack of knowledge of microphysics, the only way to ensure that there is *at least* one fine structure in virtue of which an object may answer to some idea of substance is to ensure that there is at least one object with the appropriate qualities (IV. iv. 11-12; cp. II. xxx. 5).

We have seen that the question of whether a simple idea conforms to its archetype is not settled on such grounds. Yet having raised the issue of whether certain complex ideas are such that all objects answering to them do so in virtue of one and the same fine structure, a similar query concerning simple ideas arises naturally. For if each simple idea is such that all objects answering to it do so in virtue of the same fine structure, then, clearly, all complex ideas (to which some object actually answers) will be so too. Hence, I suggest, the importance of the primary/secondary division for Locke’s discussion of ideas of substances — it raises the difficulty alluded to in II. xxix. 7: that an idea of substance may fail to determine *at most* one real essence, being made up of “*too small a number of simple Ideas*”.

Now in considering this issue for the case of simple ideas we are asking whether the relation between simple ideas and their archetypes (qualities) is *closer* than mere *conformance*. Locke has contended that to each simple idea there corresponds one quality: we are now asking whether to each simple idea there corresponds one fine structure, underlying the appropriate quality. A natural way of expressing this relationship, closer than conformance is, I suggest, in terms of *resemblance*. So we should not be surprised to find Locke insisting that:

. . .the 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. (II. viii. 15)

Thus our interpretation adequately, and easily, copes with Locke’s “resemblance” thesis. The possibility of achieving the corpuscular program we have noted, appears to imply that our idea of a quality “resembles” that quality just in case it is a quality fundamental in causal explanation. So, having argued for the corpuscular hypothesis and the

“causal” dichotomy in II. viii. 11-14 Locke draws the “resemblance” thesis as a consequence in II. viii. 15. And we have seen how in his discussion of the ways in which various qualities reveal their instantiation, Locke continued to attack the question of which qualities are (in the “resemblance” sense) primary, supporting his earlier claims.

V

Yet for those who hold that the primary/secondary split is nothing over and above the “causal” division, the “resemblance” thesis poses a sticky and, I think, insurmountable problem — viz., to find a natural reading of II. viii. 15 under which the thesis actually has some connection with the primary/secondary distinction. Pace Bennett, the thesis is surely not a simple *restatement* of the “causal” division; yet if the “causal” story is the whole truth, resort to Bennett’s method of interpretation-by-transformation seems to be the only way to secure the required connection.²⁷ Thus the difficulties already noted in the interpretation of Locke I am criticising come to a head here, with its simple inability to deal with the “resemblance” thesis.

But let us see how Mackie and Alexander handle the problem. Mackie writes that for Locke:

To say that an objective quality resembles the idea of that quality is simply to say that in this respect things are just as they look in a strictly sensory sense of ‘look’ (with the proviso that we may still say that ideas resemble qualities if

27 Here is Bennett on II. viii. 15:

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 (shape-ideas etc. are caused by shapes etc.); whereas in causally explaining ideas of secondary qualities one must describe the causes in one vocabulary and the effects in another (colour-ideas etc. are caused by shapes etc.) If this is not what Locke’s ‘resemblance’ formulations of the primary/secondary contrast mean, then I can find no meaning in them. (*Locke, Berkeley, Hume*, p. 106).

I have little to add to this. The need to resort to the method of interpretation-by-transformation is in my view strong *prima-facie* evidence of misreading of Locke.

how things look is a bit distorted from how they are, but within the same category or determinable); to say that there is nothing in the things like an idea of a certain class is to say things are not at all as they sensorily appear in this respect.²⁸

Alexander proposes essentially the same interpretation, with an infusion of semantic ascent (note that, as the final sentence makes clear, he uses “describing the qualities” as elliptical for “describing the objects having the qualities”):

We describe an idea by saying that it is an idea of red or of an extension of one foot...Now [according to the ‘resemblance’ thesis] primary qualities are such that the words we use in describing our ideas of them are also the appropriate words for describing the qualities; secondary qualities are such that the words we use in describing our ideas of them will not do for describing the qualities. The description of an idea of a primary quality is of the form ‘of *x*’ and the description of the object having the quality is ‘has *x*’ or ‘is *x*’; the resemblance is in the description.²⁹

The lemon *looks* yellow; but in fact it’s not the way it looks (the word “yellow” doesn’t apply). And it’s not even as if the lemon is actually green or red; it’s not coloured at all. There are two strong objections to this interpretation, which jointly render it quite untenable. Firstly, Locke repeatedly and emphatically rejected scepticism *in toto* (cp., e.g., IV. xi *passim*). I have already suggested that Locke rejected scepticism with respect to *all* simple ideas of sensation; and he can be found explicitly rejecting scepticism with respect to various of our ideas of secondary qualities at, e.g., IV. ii. 14 and IV. xi. 5-7 & 11. Yet if the Mackie/Alexander reading of II. viii. 15 is correct, Locke is there espousing the view that sceptical doubts with respect to *all* our ideas of secondary qualities are in fact fully justified; that the only role of those ideas in perception is to invariably mislead us about the nature of the external world. Secondly, it is quite unclear how adherence to the “causal” distinction could lead to commitment to this mitigated but quite radical form of scepticism. Why should the view that some qualities are not fundamental in causal explanation result in the belief that, in perception, our ideas of those qualities are radically misleading? Certainly Locke (like his commentators) provides no account of how one might with an appearance of plausibility pass from one view to the other. Uniting those two points, we see that if this reading of II. viii. 15 is correct the appearance of the

28 J. Mackie, *Problems*, pp. 49-50.

29 P. Alexander, ‘Boyle & Locke’, p. 75.

“resemblance” thesis must be accounted a grossly inconsistent thunderbolt from a clear sky. I have shown, however, that we can do rather better than this: and this concludes my case against the “causal” reading of Locke’s distinction between types of quality, and for its supplementation along the lines I have indicated.

Recapitulating briefly, we may say that Locke’s discussion of qualities splits into two sections, pivoting around the “resemblance” thesis. The major concern of the second, as we have seen, is to defend the view that the qualities conceptually inseparable from body, and hence fundamental in explanation, are just those which are such that all objects possessing them do so in virtue of one and the same fine structure. The first section introduces the definitions (1)-(3) used by Locke in arguing (II.viii.11-14) for the corpuscular hypothesis and the identification of the qualities fundamental in explanation with those conceptually inseparable from body. The qualities fundamental in explanation are just those ascribable to microscopic particles: so they cannot be “nothing but” powers to produce simple ideas in us, and the conclusion is, apparently that these qualities are *sums* of powers, each sum being fixed as the sum of those powers which are found constantly conjoined with some particular power to produce a simple idea in us (with that power). The connecting link between the two sections, I have argued, is the identification of those sums of powers with the qualities which are such that all objects possessing them do so in virtue of one and the same fine structure.

Our discussion shows clearly, I think, the importance of Locke’s definition of “quality” and the dichotomy between simple and complex ideas, for the division he draws between primary and secondary qualities. In the light of the considerations I have advanced, agreement as to the *nature* of that division may now, I hope, prove possible. If, finally, my remarks have seemed unduly polemical at times, I can only plead my belief that the principle of charity in Locke exegesis continues to be undervalued: that too often we are ready to see obscurity and self-contradiction where what we have found is rather *prima facie* evidence of misinterpretation.

February 1979

30 I am indebted to J. J. MacIntosh for criticism of earlier drafts.