

Yes, Virginia, Lemons are Yellow

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The goal of the eponymous “quest for reality” is “what the world is really like, or how things really are” (3).¹ Stroud’s book is devoted to a representative instance of the quest, the case of color.

There is much to think about in this stimulating and subtle book—it is a significant contribution to metaphysics. I shall go through the main lines of thought in the book in roughly the order in which they appear, concentrating of course on points of dispute; inevitably such a brief tour will leave out much material of interest.

1. The quest for reality

I said, quoting Stroud, that the goal of the quest for reality is “what the world is really like, or how things really are”. So, in the case at hand, the question to be asked is: Is the world really colored? Specifically, are lemons yellow, tomatoes red, and cucumbers green?

These questions, asked by the philosopher engaged on the quest for reality, look perfectly straightforward, but Stroud takes great pains to emphasize that they are not. “Philosophical questions about reality”, he says, “can look and sound exactly like familiar ordinary or scientific questions about reality...But the two must be distinguished, however difficult it is to say what the difference is”

¹ All page references are to Stroud, *The Quest for Reality*, unless noted otherwise.

(4). I might have forgotten what color lemons are, and so check by looking at a basket of them in a greengrocer's. I am wondering what color lemons are, and I find out that they are yellow. "The page of the book I am reading in bright sunlight shows a sickly, yellowish tinge, but I remember that I am wearing new sunglasses. I can take them off and find out whether the paper is really yellow or only looks that way through these glasses" (5). Such questions about the colors of objects are all "questions about reality, in fact about appearance and reality, but they are perfectly familiar questions of the kind we raise and answer every day. They too, are just questions about what is so, even about what is really so" (5). But, Stroud says, these questions are not the ones the philosopher is asking. The "everyday" question *Are lemons yellow?* is not the "philosophical" question that is "expressed in the very same words" (4).

Well, what is this special philosophical question, *Are lemons yellow?* In the first chapter, Stroud considers a few candidates—for instance, that the philosophical question is more general—but wisely rejects them. "[I]t is difficult", he admits, "to see or describe the difference between the two kinds of question" (15).

But is there really such a difference? I think not. First, often it's clear that the philosopher who wonders whether lemons are yellow is asking the "everyday" question. For instance, the problem of color realism is sometimes tackled by attempting a conceptual analysis of the proposition that lemons are yellow, and it is usually apparent from the context that this proposition is the one ordinarily expressed by the sentence 'Lemons are yellow'. This procedure would make little sense unless the "philosophical" and "everyday" questions were one and the same.

Second, and more importantly, surely the *philosophically interesting* question is the everyday one. According to some philosophers, the question *Are lemons yellow?* should be answered in the negative—lemons are not yellow. This is a disturbing and exciting claim precisely because it denies what the man on the Clapham omnibus believes.²

Of course, there is a difference between asking whether lemons are yellow in the greengrocer's as opposed to the seminar room. Surely, though, the difference is not in the question asked, but rather in the acceptable ways of answering it. In the greengrocer's, examining a lemon in good light is sufficient. In the seminar room, where we wonder whether our perceptions of color are ever veridical, it isn't.³

² There is a complication. Some error theorists might hold that principles of charity force some ordinary utterances of sentences like 'Lemons are yellow' to express *truths*, even though (as the error theorist thinks) lemons *aren't* yellow (cf. Boghossian and Velleman, "Physicalist Theories of Color", 107 of the reprinting in Byrne and Hilbert, *Readings on Color*, vol. 1). Such an error theorist would say that in the mouths of the vulgar, 'Lemons are yellow' expresses the true proposition that lemons look yellow to us in good light, or something of the sort. Thus the "everyday" question *Are lemons yellow?* would be different from the one the philosopher is asking. On this view, the error theory does not deny what the man on the Clapham omnibus believes; instead it denies what many clear-headed philosophers believe, and perhaps that is enough to make it (faintly) disturbing.

³ According to the contextualist about knowledge, the "philosophical" question "Do we have knowledge of the external world?" *does* differ from the "everyday" question "expressed in the very same words". That is because, in the context of the seminar room, the standards for knowledge are allegedly much higher than they are in an everyday context. One might, rather heroically, try to defend the "two questions" thesis in the color case along similar lines. But this

2. “Unreal” or “subjective” vs. “real” or “objective”

The quest for reality is somewhat more complicated than the previous section suggested. In the case of color, it isn't *simply* concerned with questions like *Are lemons yellow?* Even if lemons are yellow, a further question arises, whether “there is simply no place for colours in the world as it is “absolutely”, independently of us” (44). On the view that colors are “secondary qualities”, dispositions to affect us in certain ways, lemons are yellow. But on this account lemons are not yellow “independently of us”. Stroud thinks that this makes the secondary quality theory importantly like the error theory—the view that no material object is colored. The claim that the colors are “unreal” or “subjective” is repeatedly contrasted with the claim that they are “real” or “objective” (e.g. 60, 192, 209).

Although historically motivated, this seems to me to be an odd way of dividing the territory. To repeat a point that Stroud makes himself, the secondary

not what Stroud has in mind. For one thing, he is unsympathetic to contextualism about knowledge, and the color case is hardly a *better* candidate for a contextualist treatment (see *The Significance of Philosophical Scepticism*, ch. 2).

Nonetheless, Stroud thinks there is a distinction between “everyday” and “philosophical” questions about knowledge, and this distinction is presumably the very same as the one in the color case. According to Stroud, the problem with G. E. Moore's reaction to scepticism is that he only answers the everyday question: “It is precisely Moore's refusal or inability to take his own or anyone else's words in that increasingly elusive ‘external’ or ‘philosophical’ way that seems to me to constitute the philosophical importance of his remarks” (*Significance*, 119). As the quotation suggests, Stroud does not pretend to give a clear account of

quality theorist and her “objectivist” rival agree that lemons are yellow, which the error theorist denies. Further, although an error theorist might hold that colors are somehow “subjective” (she might think they are properties of sense-data), she doesn’t have to. More fundamentally, the secondary quality theory does not imply that colors are in any philosophically interesting sense less than fully “real”. Let it be granted that colors are constitutively connected to minds, and that shapes aren’t. Let it even be granted that objects are not colored in worlds with no minds. This doesn’t show that colors enjoy a kind of second-class ontological status. Presumably mental properties are automatically “subjective” or “not independent of us”, but are not thereby less qualified to be part of reality. It is unclear why color is any different.⁴

3. The secondary quality theory

Stroud’s schematic example of the secondary quality theory is this:

x is yellow if and only if normal human perceivers standing in certain relations R to x in certain kinds of perceptual circumstances C would get perceptions of yellow (121).

For present purposes, it will be helpful and harmless to recast this as:

the “philosophical” way of taking words; accordingly, the “philosophical” question about knowledge is no easier to explain than the “philosophical” question about color.

⁴ For similar complaints in the context of debates about “realism”, see Gideon Rosen, “Objectivity and Modern Idealism: What is the Question?”

(D) An object is yellow iff it is disposed to produce perceptions of yellow (in normal human perceivers)

(D) is subject to a number of different interpretations, yielding different versions of the secondary quality theory. Stroud argues against the secondary quality theory by arguing individually against these different versions.

Two versions of the secondary quality theory result from two accounts of the *manifestation* of the disposition, the “perception of yellow”. On the first version, the “perception of yellow” is some sort of nonintentional “sensation”. On the second version, the “perception of yellow” is intentional—a “perception of a certain property or thing” (114). In chapter 5, Stroud makes a convincing case that there aren’t any non-intentional “color sensations”, and so the first version of the secondary quality theory fails to get off the ground. We may therefore pass over the other problems Stroud finds with the first version, and concentrate on the second. There is another reason for doing this: while it may be that the first version can be found in philosophers like Locke, most contemporary secondary quality theorists think of the “perception of yellow” as intentional.

The second version of the secondary quality theory divides in two. On the “direct” view, “the “objects” of colour perceptions are the same properties that can also be ascribed in thought and belief to physical objects” (116). On the “indirect” view, “they are not perceptions of the same properties that it is intelligible to think of physical objects as having” (116). According to the

“indirect” view, “in thinking that physical objects are coloured, the properties we ascribe to those objects are not the properties we see when we see colours” (117).⁵

Take the indirect view first. It will be useful to have an actual example of an indirect theorist, and Peacocke seems to be the best bet (see 119, and also 162, fn. 9). According to Peacocke, when one looks at a lemon in good light a “region of one’s visual field” has a certain distinctive property that Peacocke expresses with the predicate ‘yellow’ (“yellow-prime”). This yellow’ region is something like a traditional sense-datum; so, obviously, it’s a matter of some controversy whether there are any yellow’ regions. And as the terminology suggests, yellow’ness is not supposed to be yellowness. Simplifying a bit, the Peacockean brand of the secondary quality theory is this:

(P) An object is yellow iff it is disposed to cause the region of the visual field in which it is presented to be yellow’.⁶

Note that because the relevant region of the visual field is one in which the object is “presented” (i.e. represented), the manifestation of the disposition is not a mere non-intentional sensation.

Unfortunately Peacocke can’t be called an indirect theorist without some qualification. I very much doubt whether he would accept one *doesn’t* see

⁵ The first, nonintentional version of the secondary quality theory also comes in “direct” and “indirect” flavors (119).

⁶ See Peacocke, “Colour Concepts and Colour Experience”, esp. 60 of the reprinting in *Readings on Color*.

yellowness, as the indirect theorist is said to hold. And although he holds that one is visually aware, in some sense, of “sensational properties” like yellow’ness, I doubt very much whether he would accept that one *sees* them (Stroud expresses some reservations on this point himself: 162, fn. 19). Although the manifestation of the disposition mentioned in (P) above is intentional, it is not supposed to be a *perception of* the property yellow’ness. However, these exegetical problems probably aren’t serious—they might well be more terminological than substantive.

According to Stroud, an indirect view like Peacocke’s has two main defects. First, a proponent of it has to embrace the implausible position that ‘yellow’ in ‘Jones sees yellow’ means something different from its occurrence in ‘Jones sees a lemon to be yellow’ (103-17).⁷ Specifically, the first occurrence picks out the “perceived property” that physical objects *cannot* have, and the second occurrence picks out the disposition that physical objects *can* have. Second—and this is a problem for *any* variant of the secondary quality theory—(D) is supposed to be some kind of “analysis” of what it is for an object to be yellow, and therefore should be necessary (126-7). But (D), Stroud argues, is contingent (128-30).

Let us take these in order. Once Peacocke has been appointed spokesman for the indirect view, it is clear that the first objection is of no force. Peacocke does not suppose that the sentence ‘Jones sees yellow’ means that Jones sees *yellow’*, and there’s no obvious reason why he should suppose it. Indeed, he presumably thinks that ordinary talk completely ignores these “perceived

⁷ This is also a problem for the nonintentional version (105-11).

properties” that physical objects cannot have—that’s why it was necessary to introduce the primed predicates.

As noted, Stroud takes the second objection to apply to any variant of the secondary quality theory. The basic argument for the contingency of (D) is simply that we can coherently imagine a world in which lemons are yellow but in which normal human perceivers get perceptions of yellow only from blue objects. I think Stroud is right: (D) is contingent. It must be admitted, though, that some secondary quality theorists would be entirely unmoved. They have soberly contemplated the situation Stroud describes, and either declared it to be impossible (e.g. McGinn⁸), or else a case of conceptual indeterminacy that accordingly may be precisified either way (e.g. Johnston⁹). Stroud does not explicitly engage with these philosophers, making his point less dialectically effective than it otherwise would have been. But let us concede to Stroud that (D) is contingent. If a necessarily true biconditional is what is wanted, then the secondary quality theorist can help herself to the device of rigidification. That is, she can change (D) to:

(D_R) An object is yellow iff it is disposed to produce perceptions of yellow (in normal human perceivers *as they actually are*).

Suppose the secondary quality theorist claims that (D_R) is necessary and a priori (of course, it would be natural for her to claim that (D) is also a priori, albeit

⁸ *The Subjective View*, 12.

⁹ “How to Speak of the Colors”, 155 of the reprinting in *Readings on Color*.

contingent). Evidently Stroud thinks that this position is mistaken, but what is his objection? It seems to be that the theorist doesn't really hold the secondary quality theory. For, on her proposal,

[the] property yellow—whatever it is—is something that objects retain even in circumstances in which they are not disposed to produce the kinds of colour perceptions they are disposed to produce as things are. So the suggestion does not reveal any relativity to us in the colours of objects. Nor does it support a subjectivist or dispositional view of an object's colour. (136)

For present purposes, why can't the theorist who claims that (D_R) is necessary and a priori just concede all this to Stroud? If (D_R) (or, for that matter, (D)) really is a priori, then it may be known without begging the important question whether our perceptions of color are ever veridical.¹⁰ And since the participants in the quest for reality concede that lemons *are* disposed to produce perceptions of yellow, by the terms of the debate it follows that lemons really are yellow. Admittedly, the "subjectivity" of the colors is perhaps still up in the air, but as to the yellowness of lemons, the quest for reality is over.

¹⁰ Stroud compares rigidified biconditionals about color to ones about shape (136-7), suggesting that there is no important difference. However, it is commonly held that the former but not the latter are a priori. I am not *defending* this view (in fact, I think it's false), but it does need to be addressed.

So, as far as I can see, Stroud's objection from the contingency of (D) is, by his own lights, not as powerful as he needs it to be.

Now turn to the direct view, on which the "perception of yellow" is, simply, a perception *of yellow*. We have just dealt with one objection to it (the contingency of (D)), but Stroud has another:

'Yellow' is supposed to have the same meaning on both sides of the dispositionalist biconditional. That means that what the word 'yellow' is said to mean when said of a physical object on the left-hand side must be substituted into its occurrence on the right-hand side in order to give the content of the perceptions in question. So a perception of something's being yellow would then be explained as a perception of something's being disposed to produce perceptions of something's being yellow. That still contains an unexplained occurrence of the word 'yellow'.

To expand that occurrence in turn by inserting into it what 'yellow' is said to mean when said of a physical object would mean that a perception of something's being yellow would then be explained as a perception of something's being disposed to produce perceptions of something's being disposed to produce perceptions of something's being yellow. And so on, into the night. There could be no end to specifying what property it is that the object has a disposition to produce perceptions of, and hence no specification of what perceptions of yellow are. But without a way of identifying the relevant kinds of perceptions, there would be no adequate specification of the disposition that an object's being yellow is supposed to be identified with. (141-2)

A similar argument is in Boghossian and Velleman's paper "Colour as a Secondary Quality".¹¹

I'm not sure that I fully understand Stroud's argument. Here are three points, intended as an invitation to Stroud to spell the argument out in more detail.

First point. The main complaint seems to be that the direct theorist cannot "specify the property" that a yellow object is supposed to produce perceptions of. What is evidently demanded is a *reductive* specification of yellowness: specifying this property as *yellowness* is not difficult. But why should the direct theorist accept this demand? One would have thought it a positive *advantage* of his position that he is not committed to any analysis of 'yellow' in non-color terms.¹²

Second point. The references to "what the word 'yellow' is said to mean" suggests the following argument. Premise: 'Yellow' does not mean the same as any complex phrase containing that very same word. Conclusion: 'Yellow' does not mean the same as 'the disposition to produce perceptions of yellow'. On many attractive conceptions of meaning this is a sound argument. So if the direct theorist makes the claim that the left-hand and right-hand sides of (D) are *synonymous*, she is in trouble. If this view is Stroud's main target, then the complaint is not against the argument, but instead against the uncharitable

¹¹ See 87-9 of the reprinting in *Readings on Color*.

¹² Cf. McGinn, *The Subjective View*, 6; however, in the later paper "Another Look at Color" McGinn endorses an argument similar to Stroud's.

description of the direct version of the secondary quality theory. There is no reason why the direct theorist should make a claim of synonymy.¹³

Third point. There is a hint that the direct theorist must admit that when one has a perception of yellow, one has a “perception of something’s being disposed to produce perceptions of something’s being yellow” (read *de dicto*). And if that is correct, then we need not pursue the regress any further, because obviously one can have a perception of yellow without having a perception of something’s being disposed to produce perceptions of something’s being yellow (read *de dicto*). However, the problematic claim about the *de dicto* content of perception plainly does not follow merely from the identity of yellowness and a certain disposition to produce perceptions. And since the direct theorist need not make any stronger claim, this argument fails.¹⁴

4. The primary quality theory

On what is sometimes called the primary quality theory, colors are physical properties—this theory is held in one version or another by J. J. C. Smart, David Armstrong, Frank Jackson, David Hilbert, Fred Dretske, Michael Tye, David

¹³ Stroud often suggests that any version of the secondary quality theory gives an account of what we say or think when we say or think that lemons are yellow (e.g. 190, 197). That is, the secondary quality theory identifies the proposition that lemons are yellow with the proposition that lemons are disposed to produce perceptions of yellow. This is the synonymy claim, in a slightly different guise.

¹⁴ In fact, the direct theorist need not even endorse an identity claim; necessary coextensiveness is sufficient (see McGinn, “Another Look...”, for a position of this kind).

Lewis, and others. In the book, Stroud does not discuss the primary quality theory.

This lacuna is unfortunate, particularly so because Stroud considers at length the traditional argument that objects have no colors because color properties are not required to explain our perceptions—only physical properties are. The primary quality theorist has the simplest reply—these physical properties of objects that explain our perceptions *are* the colors.

Stroud does discuss a related topic in chapter 3—the metaphysical thesis of physicalism. And Stroud is not sanguine about the prospects of understanding it. After commenting on the failure of the positivist program of translating ordinary sentences into the language of the physical sciences, he claims rather provocatively that “[w]e still await a clear statement of exactly what a newer and nonreductionist form of physicalism amounts to” (59). Be this as it may, it’s worth noting that the primary quality theory doesn’t depend on the truth of physicalism. Indeed, a primary quality theorist need not find any use for a general notion of “the physical”. A typical primary quality theorist makes a specific claim of property identity: that yellowness is identical to a certain way of reflecting light, for example. Whether this way of reflecting light is in some philosophically important sense a “physical property” is a somewhat peripheral issue.

It’s pretty clear that Stroud thinks the primary quality theory is false, but we aren’t told why. Anyway, Stroud does make the excellent point that a proponent of the traditional argument for the error theory must find, somehow, a place in reality for our *perceptions* of color, for these are the things that are

supposed to be explained (80). Stroud links this point with his master argument against the error theory.

5. The error theory

The master argument tries to show that “it [is] a necessary condition of our acknowledging the presence in the world of perceptions of and beliefs about the colours of things that we believe that some [material] objects are coloured” (157). If correct, this is an astonishingly strong result. It would show that error theorists who were not also eliminativists about color-psychology have an unstable position: one could not rationally maintain that people have color perceptions and beliefs without affirming that some objects *are* colored. Stroud does not pretend to offer a “conclusive proof” (157), but does think he has “a very strong case” (149). The argument, as Stroud says, is Davidson-inspired.¹⁵ The basic claim is that if one is to interpret another as having a perception of yellow or as believing that lemons are yellow, one cannot “identify the property in question” (158) unless one believes that *some* (material) objects are (were?) yellow. I’m not sure just what it takes to “identify the property”, but Stroud tells us how the color realist can do it: “I know what perceptions of yellow are because I know what yellow is. It is the colour of yellow objects. I believe that many objects are yellow” (160).

Stroud considers at some length the possibility that the error theorist might “identify the property” as a property of some of her sense-data, and rejects

¹⁵ See also “Radical Interpretation and Philosophical Scepticism”, and “The Goal of Transcendental Arguments”, reprinted in Stroud, *Understanding Human Knowledge*.

this suggestion on broadly Wittgensteinian grounds (161-66). Let us briefly try a different line of response.

We may imagine people very much like ourselves who one day come across an object with a color—the missing shade of blue, say—they have never seen before. For one reason or another they might be quite doubtful whether this object really does have the color it appears to have. (Perhaps the object is a rotating disc that is seen, when stationary, to be painted with an achromatic pattern.) Still, surely nothing prevents them from introducing a name for this shade of blue, and doubting whether anything really has it. In order for this story to make sense, no contentious doctrines about private mental objects need to be assumed.

So far, Stroud would doubtless agree that the case is possible—we may suppose that these people believe that lemons are yellow, the sky is blue, and so forth. But now change the story slightly, and imagine that these people have not seen any (chromatic) colors before seeing the strange object, and have no beliefs about the colors of things. They see the strange object, and it looks to them to have that striking shade. What's to stop them introducing a name for this shade and doubting whether anything really has it?

If this is granted, then we just need to elaborate our story so that it encompasses the full range of chromatic colors. These folk next encounter a strange scarlet object, introduce a name for this shade and doubt whether anything really has it. Then they encounter a strange aquamarine object, and so forth. (The extension of the story to include the achromatic colors is left as an exercise for the reader.) The net result is a community of rational error theorists: they can speak about the colors that objects look to have, and their perceptions of

color, but they do not believe that anything is colored. If Stroud's master argument is correct, such a community is impossible.

Pace the master argument, the story just told seems quite coherent. Stroud's own picture of perception helps explain why. When one looks at a lemon, it appears to have a certain property, viz. yellowness. In Stroud's terminology, "predicational seeing" occurs: one sees the lemon to be yellow. On Stroud's use of 'see', this does not imply that the lemon *is* yellow: "We can sometimes see what is, in fact, a green lemon to be yellow" (102). When one sees the lemon to be yellow, one is thereby able to think and talk about the property one sees the lemon to have, and intelligibly speculate about whether the lemon actually has this property. As Stroud puts it, there is a "direct connection between the objects of perception and of thought" (145). Naturally one will typically believe that the lemon is yellow, but this picture of perception seems admirably well-suited to explain how someone might reasonably think and talk about colors and perceptions of color, without himself believing that any objects are colored.

6. Yes, Virginia, lemons are yellow

Suppose, though, that Stroud's overall argument is right: colors are not secondary qualities, and the error theory is incoherent in the way explained. One might think the quest for reality has ended in a pretty satisfactory fashion: the most promising way of being a color "subjectivist" doesn't work, and there is no good argument against the testimony of our senses that objects are colored. Colors, we may fairly conclude, are "real" and "objective". Anyone familiar with

Stroud's work on scepticism will doubt that matters could be *this* simple, and so it proves.

In chapter 9 Stroud agrees that there is "a temptation to conclude that objects really are coloured after all", but says that this is "worth resisting" (192). On the next page, however, Stroud says that he does "not mean to suggest that perhaps those beliefs [that lemons are yellow, etc.] are not true or that there is reason to doubt them" (193). Indeed, Stroud asserts that lemons *are* yellow, and that "we do *know* that objects are coloured" (205, my italics). So why hasn't Stroud just succumbed to the "temptation" that he claims must be resisted?

I'm not confident of the answer, but it is evidently connected with the master argument's limitations. The master argument only purports to show that if one of the error theorist's premises is acceptable, then her conclusion must be rejected; and it doesn't follow from this that her conclusion is *false*.¹⁶ So, despite the fact that we have an "assurance...in everyday life that objects are coloured", we cannot say that the answer to the "metaphysical" or "philosophical" question is: "Yes. Objects are really coloured" (208). If we foist on Stroud the view that the "philosophical question" is simply the "everyday question" with much higher standards attached, then he is saying that although we know that objects are colored, we lack an incontrovertible proof that they are, which is "disappointing" (209).

This interpretation of Stroud may well be incorrect, however. First, it is difficult to see why the lack of an incontrovertible proof is at all disappointing: it would be unreasonable to expect philosophy to be *that* powerful. Second, the

¹⁶ Cf. Stroud, "Transcendental Arguments", reprinted in *Understanding Human Knowledge*.

interpretation fits poorly with other formulations of the “disappointing” upshot, for instance that we do not have the right kind of “understanding of our position in the world” (209). Our knowledge that lemons are yellow has been strengthened, not undermined, by philosophical reflection (or so we are granting). True, we have no incontrovertible proof that lemons are yellow, but that does not show that our understanding falls short. One may fully understand why something is so, even though one’s understanding is based on less than conclusive reasons.¹⁷

¹⁷ Stroud strikes a similar note of pessimism in the case of knowledge: “once we really understand what we aspire to in the philosophical study of knowledge, and we do not deviate from the aspiration to understand it in that way, we will be for ever unable to get the kind of understanding that would satisfy us” (“Understanding Human Knowledge in General”, 100 of the reprinting in *Understanding Human Knowledge*). However, there appears to be an important asymmetry. Stroud thinks that that the traditional project of understanding knowledge leads inevitably to scepticism, and that is the reason for the general gloom. But, as we’ve seen, Stroud does not think that the quest for reality (in the case of color) leads inevitably to the error theory—quite the contrary.