Outline of an Adverbial Theory of Colour

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Abstract

The theory of colour defended in this paper might equally well be called a *nihilism* about colour, for I take it to be the case that nothing is coloured, and that properties such as *being red* are never exemplified. We might call the latter sort of property a *colour property*, and I will try to argue here that no such properties have exemplars. However, I hesitate to call my view 'nihilistic', because I also hold that there is an important species of property that does the theoretical work of colour properties, and whose members *do* have exemplars, these examples being human beings (more generally: sensing subjects). Furthermore, I call the view *'adverbial'* because these properties, I take it, are such properties as *sensing in a red fashion,* which are often named by the use of adverbs in the literature (i.e. the property of '*sensing redly*'). Here I shall offer some positive arguments for my view, before addressing an especially pressing concern, this being the question of how statements concerning coloured objects can be true if colours do not exist.

1 A Qualified Nihilism about Colour

To fix some key terms, let us call *realism about colour* the view which says that colour properties are instantiated. That is, realists assert that some things really are red. Among realists then are those who think that facts about these coloured beings *qua* coloured beings are dependent on facts about human beings, and there are those who think that they are not. Let us call these respectively *subjectivists* and *objectivists* about colour. Note that, under this taxonomy, subjectivists are still very much *realists* about colour. The only difference between objectivists and subjectivists concerns the dependence or independence of colour on *us*. In contrast to realists of both stripes, the *nihilist* claims that no colour properties are instantiated. That is, the nihilist denies that there really are any red things. Here I should like to argue in favour of nihilism.

It should be briefly noted that this way of dividing up the positions on offer is somewhat idiosyncratic. It cuts across divisions made by Maund, for example, in his survey of the field (Maund 2012, §1.4). The distinction which Maund makes between realists and *eliminativists* is not quite the same distinction which I make between realists and nihilists, since even some theories which Maund tends to call 'eliminativist,' such as projective theories of colour, still have something of a realist bent to them, at least insofar as they are compatible with colour properties being instantiated by private objects such as sense-data, and thus with a certain form of what I have called 'subjectivism'[2]. My sense of 'realism' is in this way broader than is perhaps usual, and by 'nihilism' I therefore mean something more specific than 'eliminativism'.

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[2] Compare, for instance, the broad formulation of projectivism given by Averill & Hazelett (2011) in their article "Color objectivism and color projectivism". The authors follow Shoemaker (1990) in distinguishing between a realistic 'literal' projectivism, which

So how might one go about arguing for nihilism? Well, if colour properties are instantiated, then we are surely acquainted with some of their exemplars in our sensory experience. If anything is red, in other words, then this snooker ball, that flower, and this shirt (alternatively: this colour-patch, that afterimage) are most certainly red. If *these* things are not red, then nothing is. Now, realists will surely differ in their opinion concerning the identity of coloured objects. Some will say that they are material beings, such as cars and curtains. Others will say that certain psycho-sensory entities, that is 'sense-data,' are the things which are *really* coloured. If realism is true, then it seems to me that one of these views must be right. If there are coloured objects, then they are either inhabitants of the internal world of experience, or of the external world of material. The following argument for nihilism will therefore be two-pronged, attacking both a realism which takes colour properties to be exemplified by sensory objects, and a realism which takes colour properties to be exemplified by material objects.

1.1 Against Sense-Data

Among philosophers at least, it seems as if sense-datum theories of perception have fallen out of favour during the last few decades. Thus, one may prudently argue against the sort of realism which says that there exist coloured sense-data by arguing against the existence of sense-data *tout court*. So here is just one argument against the existence of sense-data, which I take to be quite compelling.

One quality of sense-data which is problematic is the spatiality of so called 'colour-patches,' that is, visual sense-data. They have shapes and they have positions relative to one another, and thus must have locations. But are sense-data spatially related to material beings? If they are, then certain very odd questions become legitimate. Questions which appear at once both necessary to ask and impossible to answer. How big are sense-data? Are sense-data located inside the brain, or behind the cornea, or outside of the body entirely? If they are outside the body, then why can we perceive them and not colocated material bodies which are also external to us? If they are internal to the body, then why can we not also perceive some of our colocated internal, material body parts? In order to avoid granting substance to such questions, one must deny that sense-data *do* spatially relate to material beings. Yet if we deny that sense-data are spatially related to material beings, but assert that they possess locations, then we must conclude that they inhabit an entirely different spatial realm to material beings[3].

If this is so, and we are thus led to a 'two-space' view of perception, wherein material and sensory beings are entirely cut-off from one another, then the simple question arises of *where* the subject is located. She could either be an inhabitant of the space of material beings, or of sense-data, or of neither[4]. Any answer to this question, it seems to me,

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says that colour-properties are instantiated by sense-data, and a nihilistic 'figurative' projectivism, which denies that colour-properties are instantiated anywhere.

[3] Such a view has been stated most recently to my knowledge by John Smythies in his paper "Space, Time and Consciousness' (Smythies, 2003)

[4] I maintain that she cannot be spatially related to both, under a two-space view, for the following reason. Two beings x and y are spatially related if and only if one is some distance away from the other (even if this distance is of zero meters, in the case of x and itself). But the relation of '… being some distance away from…' is plausibly both symmetric and, more importantly, transitive. If x is a distance from y, and y is a distance from z, then x is some distance from z, this being *via y*. Thus, if the subject

results in absurdity. If the subject is not spatially related to sense-data, then sense data themselves consequently fail to do the theoretical work they were posited to perform. For some sense-data seem to be positioned relative to the subject. Sounds can be *to the right* or *to the left*, for example. Therefore, if sense-data are not spatially related to the subject, then sense-data can fail to be as they seem to be. This is catastrophic as far as the sense-datum theorist is concerned, for consider the argument from illusion, the most historically salient argument for the existence of sense-data.

(1) It appears as though there is some *F* thing here.
(2) No material thing here is in fact *F*.
(3) But I must be directly aware of *something* which is *F*, else it would not appear that way.
(4) Therefore, the *F* thing of which I am directly aware is a non-material entity.

The crucial premise here is of course (3) since (1) and (2) are simply posited to be true on at least some occasions, such as when a straight stick appears bent in water. But what becomes clear upon reflection over this argument is that sense-data, being posited to account for the possibility of illusions, must always *actually* be as they appear to be, for otherwise we might run an argument as follows:

(1') It appears as though some sense-data of mine is *F*.
(2') But none of my sense-data are in fact *F*.
(3') But I must be directly aware of *something* which is *F*, else it would not appear that way.
(4') Therefore, the *F* thing of which I am directly aware is not a sense-datum.

But the conclusion of this argument contradicts the sense-datum theories of perception entirely. So it seems that the subject must indeed inhabit the sensory realm. But, then, since the subject cannot spatially relate to both sense-data and material under the two-space view, spatial relations to sense-data preclude spatial relations to material beings, and so the subject herself becomes cut-off from the material world. It seems to me that such a view collapses into a form of idealism in everything but name, but more importantly, if the subject of perception is cut-off from the material realm, then how is she to perform actions within that realm? For example, I am currently typing up this paper. But if I am also a perceiving subject, it follows that I am not spatially related to my computer, or its keyboard, and so on. So how can it be true that *I* am typing? Surely, it must mean that either I, or some part of me, is pressing the keys of the keyboard, and so must inhabit the material realm. But if I then inhabit both the spatial realm and the sensory realm, then the two are *not* cut-off from one another as we had supposed[5].

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were related to both material and sensory ones, then material beings would be spatially related to sensory ones, contradicting the view.

[5] It cannot be retorted that the subject herself does not wholly inhabit both spaces, but only has *parts* that wholly inhabit both spaces, but only has *parts* that wholly inhabit each space. This response cannot work because (i) the 'is some distance from relation' is, again, symmetric and transitive, and because (ii) a sum of spatially located beings must itself be located at least partially where each of its parts are. Thus, there cannot be a sum of inhabitants of totally cut-off spatial realms. If c is the sum of x and y, then some composite has a spatial part which wholly inhabits some space, then all of the composite's spatial parts also inhabit this space, and so the composite itself wholly inhabits that space.

The argument summarised goes like this. Either sense-data are spatially related to material beings or they are not. If they are, then certain unanswerable questions seem to present themselves, questions which have no good answer. But if sense-data are not spatially related to material beings, then absurd consequences follow[6].

1.2 Coloured Material

If one accepts a form of realism in which colour properties are taken to be properties of material beings, one is faced with a further choice. Either colour properties are reducible to other properties of material beings, such as macrostructural properties or reflective dispositions, or else they are fundamental or basic properties that are not to be understood under any more basic terms. The latter view, which might be called a *primitivism* about colour, is difficult to accept. If colours are indeed properties of material, then it seems that they must have certain causal powers, or else must endow their bearers with causal powers. If not, there would be no connection between an object's being red and our seeing it to be red. Its being red must in some way *cause us* to take it to be red. Thus, if colours are truly primitive properties of material, then their associated causal powers cannot merely be reducible to the causal powers associated with the other properties of the material. For otherwise the same problem arises: if it is the microstructure of the material which causes us to take a material to be red, say, and not the *redness* of the material, then colour properties are theoretically superfluous. But if these primitive properties are associated with certain primitive causal powers, then we seem to posit new primitive causal influences in the universe. Might a physicist be able to test for the presence of colour, as opposed to microstructure, or wavelength, or reflective disposition? Would a physical theory that did not posit each colour as a theoretical primitive be in some way defective?[7]

So consider the alternative, that colour properties are reducible or identical to certain other properties of materials, such as microstructure or reflective dispositions. Under such a view, it might be true to say that, for example, to be red just is to have a microstructure of type R, and that the property of being red *just is* the property of having a microstructure of type R. Against this view, and to end this section, I have two arguments. I am more confident in the second, since it does not rely on the doctrine of adverbialism, though in my mind both have merit.

i. Since sense-data do not exist, no object is perceived in cases of hallucination. Thus, sensation must be characterised in a way that does not require every act of sensation to have an object, thus the so-called 'act-object' distinction is faulty, and adverbialism in some form is correct. Now, if the property of being red were identical with the property of having a microstructure of type R, for example, then the property of *sensing in a red fashion* would be identical with the property of *sensing in a microstructure of type R fashion*, which is nonsense. Thus, since sensing in a red fashion is not the same thing as sensing in a microstructure of type R fashion, being red is not the same thing as having such a microstructure.

[6] For a sustained argument against 'two-space' causal realism along the above lines, refer to Bevan (2017).

[7] I borrow this sort of argument from C. L. Hardin, see: *Colour for Philosophers* (Hardin, 1979, 61)

ii. Say that a quality *q* is an item of indirect perception if there exists a quality *q** such that we perceive *q via* a perception of *q**. Then, say that perceived quality *q* is an item of direct perception if there is not such a quality *q**. To my mind, if colour properties are items of perception, then they must be items of direct perception, for what directly perceived properties could play the role of being those properties we perceive colours *through*? It seems clear to me that there are no suitable candidates. So, if colour properties are identical to microstructural properties, or reflective dispositions, or wavelengths, then it must be true that *if* we perceive colour, then we *directly* perceive colour, and so we must also directly perceive microstructure, or reflective disposition, or wavelength, which is not the case. Therefore, if we perceive colour, then it must not be identical to microstructure, reflective disposition, or wavelength.

1.3 An Adverbial Proposal

Human beings can have many different sorts of sensation. Let us call the sorts of sensation such as 'sensing redly', 'sensing bluely' and so on, *colour-sensations*. We humans very often have colour-sensations, but it is clear that having a colour-sensation is not the same thing as having a colour-property. I can sense redly without myself being red. Just so, there are many properties of material beings which are relevant to colour-sensation. Some of these are micro-structural properties, wavelengths, and reflective dispositions. Broadly, material objects have many features which dispose them to cause us to have colour sensations. However, the point which I have wanted to stress here is that none of these properties are identical with colour properties. So, the proposal which I now wish to put forward is that colour sensations, and dispositions to cause colour sensations, are *all we need* for a complete theory of colour. There is no theoretical need for an additional sort of property, the colour property, nor is there any theoretical room for such a class of property. Colour properties are not types of microstructure, reflective dispositions, or dispositions to cause colour sensation, nor are they identical to colour sensations, or otherwise predicated of colour sensations (for sensations are not substances, like sense-data, that may be coloured in this sort of way).

This view is indeed a form of nihilism, but again, I am reluctant to *call* it a form of nihilism, since I do not think that the view itself is all that different from certain sorts of realism. The similarity of my view to realist views of colour with respect to view of the semantics of colour-language will be emphasised in a moment, but note for now that there is a certain sense in which my ontology is identical to a certain sort of realist ontology. At least one sort of realist and I both believe in colour sensations, certain dispositions to cause colour sensations, and various properties of material things which endow their bearers with such dispositions (i.e. properties such as microstructure or wavelength). The only key difference is that the realist thinks that some such properties can rightly be called *colour-properties*, and that the property of being red, for example, can be *identified* with properties such as having a microstructure of type R. I merely say that they cannot.

2 A Quasi-Realist Semantics of Colour Ascription

While the main difference between the realist and I just stated may seem minor, it presents a problem when we consider a very basic linguistic question. When is a sentence of the form '*x* is *C*' true, where '*x*' names a material body and *C* stands for a colour term? To use an example, when is it true that a certain ball 'is red'? The realist has an easy answer (at least, the realist who takes colour properties to be exemplified by material objects). She may say that 'the ball is red' is true when and only when the ball possesses the property of being red. Let us label this as follows:

> (**REAL**) '*x* is *C*' is true if and only if *x* possesses the colour-property of being *C*.

Now I cannot adopt **REAL** without being forced to infer that ascriptions such as 'the ball is red' are always false, for I do not believe that there *are* such things as colour properties. Yet I do not want to commit myself to an error theory about colour ascriptions. Surely, some of these sentences are true. I want to say that 'the sky is blue' really is true. So our next task is to suggest an alternative colour semantics, and in doing this, I am drawn to one sort of approach. Recall that there is a certain strain of realism which is very similar to my view. Under this sort of realism, colour properties are to be identified with certain properties of material objects. To take one possible flavour of this species of realism as an example, let us consider the theory, which I will call **STRUCTURE**. Now **STRUCTURE** is a general theory of colour which takes it that colour properties just are micro-structural properties, and so we can consider it to entail the conjunction of a set of schemas of the following form.

> (**S**$_C$) *x* has the colour-property of being *C* if and only if *x* has a microstructure of type M$_C$.

Note that a realist who does not wish to be a primitivist about colour will have to adopt a theory like **STRUCTURE**, that is, they must have a theory of *which* properties colour properties are identical or reducible to. They need not necessarily be micro-structural properties, but they are for this example. Now a realist who adopts **STRUCTURE**, since they will also adopt **REAL**, will draw the following conclusion.

> (**A**) '*x* is *C*' is true if and only if *x* has a microstructure of type M$_C$.

While I cannot adopt either **REAL** or **STRUCTURE**, I can adopt this conclusion as a correct semantics of colour ascriptions in good conscience, since unlike the previous two biconditionals, it makes no mention of colour-properties. In this way, we can arrive at a nihilist-friendly semantics of colour simply by agreeing *almost* entirely with this sort of reductive realist, stopping just short of calling the property involved in correct colour attribution a colour property.

One problem which makes itself apparent in this approach is the following: while the nihilist can indeed accept **A** if they wish, they seem to lack the same independent justification for doing so that the realist has. The realist is justified in accepting **A** because it is a consequence of **REAL** and **STRUCTURE**, which one may presume they are justified in accepting. But since the nihilist does not accept either of these theses,

the corresponding justification which the theses provide for **A** is consequently unavailable. So why *ought* the nihilist accept **A**, as opposed to some other semantics? In answer to this problem, I am inclined to give the following suggestion. First we ask, from where does the realist get their justification in accepting **STRUCTURE (**or some alternative realist theory of colour)? If we assume that they have such a justification, then presumably this justification is empirical in nature, for it seems that such a theory could not be justified *a priori*. Now such an empirical justification would seem to have to take the following form. In order to justify a schema such as $\mathbf{S}_C$, one would first take many objects for which the colour term *C* may be correctly predicated, the predicate 'red' for example, and one would then examine their microstructure, and find the objects to have a microstructure of some common type. Conversely, one would examine other objects possessing such a microstructure, and find that they may all truly have 'red' predicated of them. By performing a number of experiments of this nature, one might be thought to gain greater and greater justification for **STRUCTURE**. However, to my mind it seems as if the more *direct* justification is given to **A** by such experiments. At the very least, the experiments will provide one with *at least* as much direct justification to **A** as they will to **STRUCTURE**.

2 Conclusion

So to conclude, the theory of colour which I advocate is a form of nihilism which is in many ways strikingly similar to certain forms of realism. I agree with the realist that material objects possess many properties that endow material with dispositions to cause humans to have various colour sensations, though I deny that any of these properties can sensibly be identified with colour properties, nor that colour properties can be thought of as properties of sense-data, seeing as the latter do not exist. I also contend that a realist-inspired semantics of colour ascriptions can be constructed on the nihilist's resources. All in all, I have tried to make the logical space of the dispute over colour properties clear, and I have tried to show that colour properties are themselves both philosophically problematic and unnecessary. On an adverbial, nihilistic view of colour, one can still make sense of the phenomena, without any of the problems one faces on a realist view, and as such it is the preferable of the two.

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