

Being Coloured and Looking Coloured

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Intuitively, there is an intimate connection between being coloured and looking coloured. As Strawson memorably remarked, it is natural to assume that 'colours are visibilia or they are nothing' (1979, 109). But what exactly is the nature of this relationship?

A traditionally popular view of the relationship between being coloured and looking coloured starts from the common place that the character of our perceptual experience changes as the conditions in which an object is perceived vary. For instance, our experience changes when we view an object under different illuminants, as when we move from artificial illumination indoors to natural daylight outside. It changes under one and the same illuminant, depending on whether the object is directly or indirectly illuminated. And it varies independently of this, as the background against which the object is perceived varies. Placing a lot of weight on the idea that objects look or appear different as the perceptual conditions vary, proponents of this approach suggest that we can understand what it is for something to *be* coloured in terms of what it is for something to *look* coloured in specific perceptual conditions.

A version of this general approach to understanding the relationship between being coloured and looking coloured, canonically associated with dispositionalist theories of colour in the broadly Lockean tradition, has recently been proposed by Alva Noë in *Action in Perception* (2004). I argue that Noë's *phenomenal objectivism* is no more successful

than traditional dispositional theories of colour. But Noë's distinctive version of this general approach suggests an alternative way of developing an account of what it is to be coloured. Whilst phenomenal objectivism respects the intimate connection being coloured and looking coloured, it mischaracterizes the relevant sense of 'looking coloured'. The alternative is to understand 'look' *non-perspectivally*. Non-perspectival looks are mind-independent properties of the environment that transcend specific circumstances of viewing: they are properties that objects have independently of the way they look in particular perceptual conditions.

§I situates Noë's phenomenal objectivism in relation to traditional dispositional theories of colour. §II raises two problems common to theories of this general kind: one phenomenological, one epistemological. These problems are then used to motivate the alternative account of colour developed in §III.

I Phenomenal Objectivism

Noë's phenomenal objectivism starts with a reification of 'looks' or 'appears,' such that when an object looks a certain way in a particular set of perceptual conditions, there is a relational property — a *look* or *apparent property* — that the object has in those circumstances. A silver car under orange street lighting, for instance, has the relational property of being *orange in orange light*. A white wall in shadow has the relational property of being *grey in shadow*. A grey square against a black background has the relational property of being *light grey against a black background*. Colours are then identified colours with 'patterns' of these apparent properties, or what Noë calls 'colour aspect profiles.'

Phenomenal objectivism is *phenomenalist* in the sense that colours are reductively identified with colour aspect profiles: colours are nothing more than patterns of apparent properties that objects manifest in different perceptual circumstances, and in particular, there are no underlying chromatic properties that apparent colours are appearances of. Colours contrast in this respect with observable properties like shape and size. Corresponding to apparent colours, objects also have relational shape and size properties, which Noë calls 'P-properties' or 'perspectival properties,' such as being *elliptical from here* or being *occluded by a penny on a plane perpendicular to the line of sight from here* (2004, 82-3). But these apparent shapes and sizes are appearances of underlying shape and size properties that exist over and above the pattern of perspectival shape and size properties that objects manifest in different perceptual conditions. Phenomenal objectivism is *objectivist*, on the other hand, in

so far as these apparent properties are themselves mind-independent properties of the perceptual environment. The property that an object has of being *grey in shadow* is a relational property of that object. But because it is a relation between an object and a light source — and crucially, it is not a relation between an object and a perceiving subject — the property is not in any sense mental, subjective, or more generally mind-dependent.¹

Phenomenal objectivism is therefore a realist theory of colour, but a reductive realist theory of colour. Colours are identified with colour aspect profiles, constituted by real, objective, mind-independent apparent properties; but the nature of the colours is supposed to be exhausted by these patterns of organisation in how things look, in a way that the nature of shapes is not. ‘There is,’ as Noë puts it, ‘nothing, it would seem, that stands to color as P-properties (perspectival shape and perspectival size) stand to their corresponding properties’ (2004, 133). That is, there are no ‘real’ colours over and above sets of apparent colours, in the way that there are ‘real’ shapes over and above sets of apparent shapes.²

Noë presents phenomenal objectivism as an *enactive theory of colour*. The enactive theory of colour is so-called because it is intended to march in step with the *enactive theory of colour perception*. According to Noë, to experience something as having a particular colour is to experience it as having a particular colour aspect profile. Activity enters the picture because of the control that subjects enjoy over their experience of patterns of change in an object’s colour appearance; for instance, when a subject changes the character of their experience by changing their position relative to the object, viewing the object under a different illumination, and so on. This ties the account of colour and colour experience to the overarching thesis of *Action in Perception*, that ‘perceiving is a way of acting’ (2004, 1): that perceiving is constitutively dependent on implicit ‘sensorimotor knowledge’ of the effects of movement on sen-

1 Noë’s apparent properties therefore should not be confused with Shoemaker’s ‘appearance properties’ (e.g. Shoemaker 2006), which are mind-dependent relational properties of objects to (be disposed to) cause certain kinds of experience, and that are distinct from, but related to, colours.

2 This natural way of drawing the contrast is somewhat unfortunate, as saying that there are no ‘real’ colours over and above sets of apparent colours might seem to suggest that colours are therefore *unreal*. This is not the intention. Rather, ‘real’ is supposed to designate the *additional* property that according to Noë exists in the case of shape and size, but not in the case of colour. Noë himself uses the term ‘real’ (e.g. 2004, 123), and sometimes ‘actual’ (e.g. 2004, 84), to refer to this additional property in the case of shape and size. I will always put ‘real’ in quotation marks when using the term in this sense.

sory stimulation. For Noë, to experience an object as having a certain colour aspect profile, and therefore to experience it as instantiating a particular colour, is to experience it as being such as its appearance would change given certain kinds of movements; it is to experience it as having a specific 'sensorimotor profile.'

It is perhaps debatable whether colour perception slots quite so seamlessly into the sensorimotor framework as shape perception. Compared to the dependence on movement of shape perception, the dependence on movement of our colour experience is a comparatively poor relation. The strictly speaking *movement*-dependent sensorimotor contingencies associated with colour are restricted to a few kinds of manipulation, such as turning an object in relation to a light source, and some sub-personal, non-intentional, movements, like fixating on a coloured object so as to stimulate the foveal region of the eye, which is densely populated with retinal cones. These sensorimotor contingencies are not like the rich range of movement-dependent sensorimotor contingencies afforded by shapes, properties that constantly change in appearance as we move in relation to them, or manipulate them in our hands.

Far more multifarious are the *object*-dependent sensorimotor contingencies associated with colour: those ways in which an object's appearance changes depending upon its own movement throughout the environment and changes in that environment. For instance, an object's appearance not only changes with the illumination and background in different parts of the scene as the object moves around, but it also varies just if the ambient illumination or the colours of the surrounding objects change (Noë, 2004, 64-5, 129-32). But it is a moot point to what extent object-dependent sensorimotor contingencies are best described as involving knowledge of *sensorimotor* contingencies; these variations seem to depend as much on *change* in the environment as anything that we would naturally describe as *movement*.

But the relation of phenomenal objectivism to the enactive theory of perception is not the main focus of this paper. The enactive theory of colour perception does not entail phenomenal objectivism about colour, any more than the enactive theory of shape perception entails a corresponding phenomenal objectivism about shape. Consistent with the enactive theory of perception, colours can have rich sensorimotor profiles even if they are not identical to patterns of organization in how things look, just as shapes can have rich sensorimotor profiles without being reducible to the way that things change their apparent shape as your vantage point varies. Phenomenal objectivism and the enactive theory of perception are independent theories.

Of more immediate importance is the relationship between phenomenal objectivism and traditional dispositional theories of colour. Anticipating the objection that phenomenal objectivism is merely

dispositionalism by a different name, Noë is keen to distinguish phenomenal objectivism from dispositionalism.³ As Noë characterizes it, dispositionalism is the view that ‘to be red, for example, is to be such as to look red to normal perceivers in normal lighting conditions,’ where what it is to look red (as used on the right hand side of this definition) is to be understood in terms of sensational properties of experience, or qualia (2004, 142). Phenomenal objectivism differs from dispositional theories of colour so construed because it does not account for what it is for something to ‘look coloured’ in terms of subjective properties of experience, but in terms of mind-independent apparent properties. Indeed, it is largely because it avoids well known problems associated with sensational properties of experience that Noë argues that phenomenal objectivism is preferable to traditional dispositional theories.⁴

It cannot be a decisive consideration in favour of phenomenal objectivism *simply* that it doesn’t involve a commitment to sensational properties of experience. Even though many dispositionalists about colour are committed to the existence of qualia (e.g. Peacocke 1983), it is not *definitional* of traditional dispositionalist theories that colours are identified with dispositions to produce experiences with intrinsic sensational properties, rather than dispositions to affect perceivers more generally. According to Ryle, for instance:

Secondary Quality adjectives are used and used only for the reporting of publicly ascertainable facts about common objects; for it is a publicly ascertainable fact about a field that it is green, i.e. that it would look so and so to anyone in a position to see it properly. (1949, 209)

But although Ryle is a dispositionalist about colour, as a staunch critic of private sensational properties, he would vehemently deny that colours are dispositions to produce experiences with intrinsic sensational

3 A similar objection, for instance, is commonly directed at the closely related ‘ecological theory’ of colour developed by Thompson (1995).

4 Noë sometimes appears to elide the distinction between dispositionalism and eliminativism, as when he claims that ‘Traditional dispositionalists deny the objectivity of color by arguing that colors are psychological... Colors are not properties of objects, because they are, in effect, *in us*... Colors are unreal; color *experiences* are real’ (2004, 148). In so far as dispositionalists hold that colours are dispositions *of objects* to look coloured, this mischaracterizes the dispositionalist’s position: like phenomenal objectivists, but unlike eliminativists, dispositionalists insist that colours are real, and hence deny that they are merely ‘*in us*.’ But the contrast that Noë draws elsewhere between dispositionalism and phenomenal objectivism does not depend upon this way of understanding of the dispositional thesis.

properties.⁵ This is something that would also be denied by disposition-
 alists who defend or intentionalist (or representationalist) theories of
 perception, such as Mackie (1976), and in different ways, Evans (1980)
 and McDowell (1985). So even if there are no intrinsic properties of
 experience, whether phenomenal objectivism is preferable to the more
 general view that colours are dispositions to affect perceivers — that is,
 to look coloured *to perceiving subjects* — is still an open question.⁶

Whatever differences there are between phenomenal objectivism and
 traditional forms of dispositionalism, however, do not get the heart of
 the problems with these views. The fundamental problems with these
 theories are independent of any specific way of spelling out what it
 is for something to look coloured. Instead, they stem from the shared
 assumption that it is possible to account for what it is for something
 to be coloured in terms of what it is for something to look coloured in
 particular conditions.

II The Phenomenology and Epistemology of Colour Perception

Noë distinguishes between colour, shape, and size in terms of the rela-
 tionship that the respective apparent properties bear to the relata on
 which they supervene. Apparent shapes, for instance, are determined
 by the ‘real’ shape of an object plus the object’s (‘real’) spatial relations,
 specifically its orientation with respect to the different points of space
 that constitute different possible points of observation. In this case, the
 relata on which the relational apparent property supervenes are both of
 a kind: they are both spatial properties. Similarly, the apparent size of
 an object is fixed by the ‘real’ size of the object plus the (‘real’ size of the)
 distance of the object from the point of observation. Again, the relata
 that determine the relational apparent property are both of a kind: they
 are both sizes.

But things are supposed to be different in the case of colour. Because
 colours are supposed to be nothing more than patterns of apparent
 colours, there are no ‘real’ colours that lie behind the colour appear-

5 Although as Peacocke (1983, 29, fn. 2) points out, and Ryle himself acknowledges,
 this leaves an unanswered question about what it means to ‘look so and so,’ given
 that this cannot be understood as ‘looks *green*’ on pain of circularity.

6 Noë (2004, 142) perhaps appears to suggest that the dispositionalist will have to
 appeal to qualia to give a non-circular account of what it is for something to ‘look
 coloured’. Whilst I am sympathetic to this line of thought, I argue below that a
 similar circularity problem arises for phenomenal objectivism.

ances in the way that there are 'real' shapes and sizes that apparent shapes and sizes are appearances of. As such, apparent colours must supervene on properties that differ fundamentally in kind. This is obvious in the case of material objects. But the point applies to the perceptual conditions as well. At least on the face of it, it is the *colour* of the background that affects the appearance of the object in the foreground in cases of simultaneous colour contrast: for instance, it is the *black* of the background that makes the grey appear lighter. Likewise, at least on the face of it, it is the *colour* of the illumination that co-determines the apparent colour of the object. This is more obvious in cases where the illuminant is clearly chromatic: for instance, when we see a white wall illuminated by blue light, or search for a car under orange sodium street lighting. But the same applies to variations between so-called 'white lights,' like the various phases of natural daylight, candlelight, and most commercial and domestic illuminants, which themselves differ in colour depending on whether they are 'warmer' (yellowish or reddish) or 'cooler' (bluish).⁷ Yet if there *are* no 'real' colours of objects over and above sets of apparent colours, then presumably there are no 'real' colours of the illumination or the background to co-determine the object's apparent colour, either. If so, whatever properties of objects and perceptual conditions determine an object's apparent colour, they are not chromatic properties; they must be properties of some other kind.

Noë's reasons for thinking that colours differ from shapes and sizes in being reductively identifiable with patterns of apparent properties are considered in §III. For the time being, however, I want to highlight two problems that the putative disanalogy raises: one phenomenological, one epistemological.⁸

1. The Phenomenology of Colour Experience

The phenomenological objection to phenomenal objectivism is the counterpart of a problem with traditional forms of phenomenalism. In discussing phenomenalism, Ryle (1949, 223) remarks that even stating

7 This can be illustrated by a simple experiment described by Hurvich (1981: 41). Fold up a piece of white paper and place it like an open book on a table, so that one side is illuminated by daylight and the other by an artificial light source. If you now look at the edge of the paper through a tube or rolled up piece of paper, you will notice a clearly discernible difference in colour between the two light sources, a difference that should be describable in terms of the colour of the light that they each produce. For a more detailed discussion of differences in the illumination, see Allen (2010).

8 For complementary discussion, see Kalderon (ms.).

the phenomenalist position is problematic. In particular, the seemingly natural claim that, for instance, 'there is nothing more to be said about the gate-post than how it does or would look, sound, feel, etc.' is at best misleading. If phenomenism is correct, then by hypothesis, there *is* no gate-post over and above the collection of gate-post appearances to which 'it' in this characterization can refer; the gate-post *just is* the collection of gate-post appearances.

The problem is not just that it is difficult to state the phenomenalist position without exercising due caution. The problem that Ryle highlights is symptomatic of an underlying difficulty. The natural temptation to refer to gate-posts independently of the way gate-posts appear is symptomatic of the fact that our experiences extend beyond the appearances to which phenomenalist accounts of gate-posts are restricted; our experiences outstrip what is available to the phenomenalist, stretching beyond gate-post appearances to the gate-posts themselves. When we see a gate-post, we generally see it as a voluminous three-dimensional object with a back-side, even if its back-side is not visible from the spatial position we presently occupy. We perceive the gate-post as continuing behind the parts of the gate that occlude our view of it. We perceive it to be something that extends beyond the specious present, and so on.

The tendency to go beyond the phenomenalist's appearances is an example of the ubiquitous phenomenon that Noë calls 'presence in absence.' As Noë stresses, presence in absence seems to be a genuinely *perceptual* phenomenon. In particular, it does not seem to be something that we can simply explain away in terms of post-perceptual judgement. Considering amodally completed Kaniza figures (as illustrated in Figure 1), for instance, Noë remarks:

We don't merely *think* the presence of the occluded bits: After all, they are, evidently, *not* present, but blocked from view (or rather, not drawn); it *looks* as if they are blocked from view. We experience the presence of the occluded bits even as we experience, plainly, their absence. They are present *as absent*. (2004, 61)

One experiences the presence of that which one perceives to be *out of view* (2004, 63).

Taking these descriptions of the phenomenology of presence in absence seriously, the natural inclination to go beyond the phenomenalist's appearances reflects the phenomenological inadequacy of phenomenism.

But an analogous problem arises for Noë's phenomenal objectivism. Phenomenal objectivism, unlike phenomenism, is not an entirely general theory. As such, there are still objects and non-chromatic properties over and above the patterns of apparent properties with which

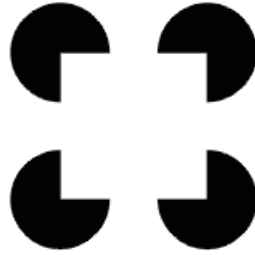


Figure 1: A Kaniza Figure.

colours are identified. Hence, Noë's claim that '[t]he color of an object is a way its appearance varies as relevant conditions change' (141) is not problematic in quite the same way as the incautious phenomenalist's description of the gate-post: for Noë, there is at least an object beyond the appearances for the 'its' in this statement to refer to.

The problem for phenomenological objectivism is not that the 'its' fails to refer, but that it appears to refer to the wrong kind of thing. According to Noë, a special case of presence in absence is the phenomenon of *perceptual constancy*: the perceived constancy of a property throughout changes in the conditions under which it is perceived. Noë maintains that with respect to perceptual constancy, colour, shape and size are on a par. Just as he thinks that we perceive the roundness of a plate:

in the fact that it looks elliptical from here and that its elliptical appearance changes (or would change) in precise ways as your relation to the plate, or plate's relation to the environment, changes

so, he thinks that in exactly the same way:

we experience the color of the wall in the fact that the apparent color of the wall varies as lighting changes. We are able to experience the actual colour of the object as, so to speak, that condition which governs or regulates the way these changes unfold. (2004, 127-8)

It is worth mentioning in passing that the claim that we perceive an object's 'real' shape 'in,' or as might also be said 'by virtue of,' its elliptical appearance is not unproblematic. In particular, it threatens to place 'real' shapes and sizes beyond a veil of appearances — albeit a veil of mind-independent appearances — thereby blocking our epistemic access to the intrinsic properties of objects. Phenomenalism, in contrast, at least has the advantage of tearing down the iron curtain between appearance and reality. But I do not want to pursue this worry here.⁹

⁹ For one response to this type of worry, see Schellenberg (2008).

The point that I want to draw attention to here is Noë's claim that we perceive the object's shape — which is to say its 'real' shape — at all. The 'real' shape is indispensable to the description of the phenomenology. Indeed, this is precisely what we should expect from the fact that Noë regards the phenomenon of perceptual constancy as an instance of the more general phenomenon of presence in absence: as the appearance of *some one thing* as present despite being absent. To say that the object's 'real' shape appears to be present in its absence is to say that we perceive the object to be *really* round even when it merely *appears* otherwise.

The problem, of course, is that if colour really is on a par with shape with respect to constancy, then the same should be true of colour. That is to say, an object's colour — which is to say its 'real' colour, something over and above the pattern of apparent colours — should also be something that we perceive in its absence. This is how Noë himself describes the phenomenology of colour constancy in the passage quoted above, clearly regarding the colour — or as he calls it 'the actual colour' — of the wall as something over and above the pattern of apparent colours. This parallels his description of the phenomenology of shape constancy: 'To see the actual size of a thing is to see how its perspectival shape varies as we move' (2004, 84). It is the *colour itself* that appears to persist throughout changes in its appearance due to variations in the perceptual conditions. The 'actual colour' is that 'condition' which we perceive to 'govern or regulate' — which is to say, ground or explain — the way in which our experience of the object varies as the colour-critical conditions vary. By hypothesis, however, there *is* no colour to perceive 'in' the object's coloured appearances, in the way that there is a shape to perceive 'in' the plate's elliptical appearance. Colours are supposed to be nothing more than sets of apparent colours.¹⁰

10 Noë describes the phenomenology of colour constancy similarly elsewhere. The claim that '[t]o be a particular red is to bring about these sorts of apparent changes in how things look' (2004, 143) also appears to suggest that there is a quality of redness over and above the ways that red things variously appear, that 'brings about' the changes in appearance. This is consistent with the description of the phenomenology of constancy in the paragraph immediately prior to that cited in the text above: according to Noë, we see the uniformity of an homogeneously coloured object 'behind or beneath (as it were), the variable appearance...changes or nonuniformities in illumination *do* affect the apparent color of the object...but they do not affect our experience of the *actual* color...We experience color as that which is, in a wide range of cases, *invariant* amid that apparent color' (2004, 127). Compare also the claim that we experience the wall as 'uniform in colour *and* as differently coloured across its surface' (2004, 129, 164).

The problem can be illustrated by substituting a statement of phenomenal objectivism for 'colour' and 'actual colour' in Noë's description of the phenomenology of colour constancy quoted above. The first sentence:

(1) we experience *the color of the wall* in the fact that the apparent color of the wall varies as lighting changes

reduces to the tautological claim that:

(1*) we experience *the way the apparent colour of the wall varies as lighting changes* in the fact that the apparent color of the wall varies as lighting changes.

Similarly, the subsequent claim that:

(2) We are able to experience *the actual colour of the object* as, so to speak, that condition which governs or regulates the way these changes unfold

becomes the equally unilluminating:

(2*) We are able to experience *the way the apparent colour of the object varies as lighting changes* as, so to speak, that condition which governs or regulates the way these changes unfold.

As descriptions of the phenomenology of constancy, (1*) and (2*) are crucially incomplete. Properties that exhibit perceptual constancy look in some way the same, and yet in some way different, as the perceptual conditions vary. Identifying colours with colour aspect profiles accounts for the apparent differences as the conditions vary; but it does nothing to account for apparent sameness. According to phenomenal objectivism, there is nothing more to being coloured than manifesting a particular pattern of apparent colours. What is needed in addition to the set of apparent colours with which phenomenal objectivism identifies colours is a unifying property that is perceived to remain constant throughout these changes. Phenomenologically speaking, the perceived constancy of colour throughout changes in the colour-critical conditions is the perceived constancy of the *colour itself*.

This objection to phenomenal objectivism is effectively just an instance of the standard objection to traditional dispositional theories, that colours do not look like dispositions to appear coloured. According to one way of pressing this objection, this is to say that the dispositional account of colour is inconsistent with the phenomenon of colour constancy. As Johnston puts it, for instance:

(steady) colors don't look like dispositions; to which the natural reply is 'Just how would they have to look if they were to look like dispositions?'; to which the

correct response is that they would have to look like colored highlights or better, like shifting, unsteady colors. (1992, 141)¹¹

Whatever other differences there might be between dispositionalism and phenomenal objectivism, they do not bear on the phenomenological adequacy of phenomenal objectivism. Like dispositional theories of colour, and phenomenalist theories more generally, phenomenal objectivism is phenomenologically inadequate. Being coloured is phenomenologically prior to looking coloured.

2. *The Epistemology of Colour Experience*

The problems for phenomenal objectivism ramify when turning from the phenomenology of colour experience to its epistemological role. As Noë's description of the phenomenology of constancy brings out, the experience of colours as properties that lie beyond colour appearances has an important epistemic dimension: we experience colours as properties that 'govern or regulate' the way in which coloured objects appear as the colour-critical conditions change. This is important from the perspective of perceptually based action. Our understanding of the ways in which an object's colour contributes to its behaviour in counterfactual situations grounds the expectations that we are able to form about it. It is only by having expectations about how that object will behave across different contexts that we are able to work on, and with, that object. Needless to say, colours are not unique in this respect: the same is true of shape and size.

The problem with phenomenal objectivism is that, unlike shapes and sizes, colours are supposed to be nothing more than patterns of organization in how things look. Consequently, we can only know how an object's appearance will change across contexts by perceiving how its appearance *actually* changes as the perceptual conditions vary. We cannot account for this understanding in terms of perceiving a property that governs or regulates this behaviour, as by hypothesis there is no such property: there is no 'principle of unity' to the manifold appearances, nothing that can ground our expectations about how the course of our experiences will unfold. This means that we have no way of forming expectations about how an object's appearance will change as the viewing conditions vary, because we have no way of knowing, on the basis of a currently manifested appearance, which colour aspect

11 For further discussion of this objection to dispositionalism, see e.g. Allen (2007) and Kalderon (forthcoming).

profile this apparent property is a member of. That a given apparent property is a member of a given colour aspect profile is at best a brute fact. Indeed, without any principle of unity underlying the different apparent properties, phenomenal objectivism lacks the resources to explain why it is that we group different apparent properties into distinct colour aspect profiles at all. Why is it that we group different apparent properties into distinct patterns, rather than taking them to be distinct, unrelated appearances? Without any underlying ground, there is no way to distinguish mere difference of apparent colour from difference of the colour aspect profile that this property is a property of.¹²

Noë's account of individual apparent colours — which builds on a proposal by Pettit (2003), and is consonant with the enactive approach to perception developed in *Action in Perception* — acknowledges, but ultimately fails adequately to address, these problems. Noë's account of the individual looks that constitute the building blocks of colour aspect profiles is co-ordinate with an account of our experience of apparent colours. What it is to *experience* something as looking red in a particular set of perceptual circumstances — to look red 'here and now' — is tied to the range of discriminatory capacities that flow from the experience. Correlatively, what it is for something to *look red* in a particular set of perceptual circumstances is for it to have a power to enable perceivers to make these kinds of discrimination. There are two types of discriminatory capacity in question. First, to experience something as looking red is to see it as looking such that we could discriminate it from other coloured things in certain ('red appropriate') ways. Second — and it is at this point that Noë's account touches on the unity objection — to experience something as looking red also requires a subject to experience it as being such that 'it would vary in appearance in a range of comprehensible ways, given the color aspect profile of the relevant red' (2004, 140).

Neither part of this account is entirely unproblematic. First, the claim that in experiencing something as red we see it as being discriminable from other things builds an incredible amount into the phenomenology of colour experience. Some estimates put the number of discriminable colours, at the level of just noticeable differences under controlled conditions, at around 10 million. The number of colours that are

12 For a related objection to Noë's account of shape perception, see Schellenberg (2007, 609-10). Although Noë thinks that there are ('real') shapes underlying the pattern of shape appearances, it is unclear how these properties can play their distinctive epistemic role, given Noë's claim that we only indirectly perceive them 'by virtue of' of being directly aware of apparent shapes.

discriminable under more normal conditions probably still runs into the hundreds, if not the thousands. And even just considering relatively coarse grained colours — like scarlet, mauve, pink, or perhaps the still more coarse-grained colours red, green, blue — the phenomenology of colour experience will still turn out be incredibly complex. Is it really phenomenologically plausible to suppose that when something looks red it also looks not green, blue, yellow, black, white, orange, purple, pink, brown, grey, cyan, chartreuse...?¹³

Indeed, ascribing this content to experience is potentially incoherent. Noë's account of what it is for something to look red here and now in terms of how it differs in look from other things threatens to be viciously circular. In order to understand what it is for something to look red, we need to understand how something that looks red is different from something that looks green, yellow, and so on. What it is for something to look red is therefore defined in terms of a whole range of further looks. But the accounts of these further looks will themselves depend upon an account of what, in the first place, it is for something to look red. Reapplying the general account of 'looks *F* here and now' to looks green, for instance, part of what it is for something to look green is that it looks such that it would be discriminable in colour from something that looks red. But this makes the content ascribed to the original experience of something that looks red incoherent. What it is for something to look red is such that it looks discriminable from something that looks green, which is itself for something to look discriminable from something that looks red; but what it is for something to look red is what we were trying to give an account of in the first place.

This circularity becomes still more pressing when we consider the second condition that Noë places on the account of what it is for something to be apparent red: to look red here and now. To say that something looks red in a specific set of circumstances involves certain counterfactual commitments. Part of what it is for something (to look red here and now) is for it to be such that it would vary in appearance in certain ways given certain changes in the perceptual conditions. That is, looking red here and now is part of a unique colour aspect profile: as Noë puts it, we understand that an object that looks red here and

13 There is a further question about exactly *how* these further properties are supposed to enter into the phenomenology of experience. According to Noë, 'our experience of colors is shaped by our implicit grasp on their positions in color space. We experience them as imbued with possibilities of variation, as possessing degrees of freedom in a space of phenomenal possibilities. We don't *see* the rest of color space when seeing the red look of the book. But our sense of the presence of that larger color space contributes to what it is like when we experience red' (2004, 137).

now will vary in appearance as the colour conditions change 'in the 'red appropriate' ways' (2004, 139). But *how* do we group appearances together into different colour aspect profiles? Why suppose that *this* look in *these* conditions is part of precisely *this* colour aspect profile, rather than any other? It would not be appropriate to group the *same* look in *different* conditions as part of this colour aspect profile, as objects look different in different conditions; if the object appeared *this* way in different conditions, then this apparent property would be part of a different colour aspect profile. Likewise, it would not be appropriate to group a *different* look in the *same* conditions as part of this colour aspect profile; if the object appeared *that* way in these conditions, then its apparent colour would also be part of a different colour aspect profile. But what explains our understanding of this?

The natural answer is that we group this apparent property in these conditions with the other members of the red colour aspect profile because we already know that this is the way that red things appear in these circumstances: that this apparent property is appropriate to red things in these conditions. But this exploits a prior understanding of what it is for something to be red, namely that to be red is to look red in precisely these conditions, where being red is what makes it true that in these conditions a thing would look precisely like this.

Again, the basic problem is familiar from discussions of phenomenalism and dispositional theory of colour. Without an underlying principle of unity to which we have epistemological access, phenomenalism offers no way of explaining how we group appearances together into different objects (Strawson, 1966). Why suppose, for instance, that something that appears a certain way in these conditions would appear some other way in another set of conditions? What grounds do we have for grouping together distinct appearances in this way? According to the phenomenalist, the grouping of appearances into distinct objects is simply a brute fact. It then becomes mysterious how we could know how the object would behave in various counter-factual circumstances. We only seem to be able to know how the object would appear in different circumstances by seeing how it does in fact behave in these circumstances.

An analogous problem arises for traditional dispositional theories of colour (Kalderon, Forthcoming). Objects that have a disposition to appear a particular way in a certain set of circumstances are disposed to appear otherwise as the conditions vary; indeed, this kind of perceptual relativity is one of the main motivations for dispositionalism in the first place, just as it is for phenomenal objectivism. But again the question is how we can be in a position to know how the object will appear as the conditions vary, if there is no property to which we have epistemological access that unifies the different appearances. In advance of actually seeing how the object behaves as the conditions vary, we have

no reason for thinking that an object that looks a certain way in these conditions will look one way rather than any other in another set of conditions.

Indeed, this is effectively just an instance of the familiar worry that dispositional theories of colour are circular. The dispositionalist tries to account for being red in terms of looking red. But if understanding the *analysandum* 'looks red' involves a prior understanding of the constituent term 'red,' then we can only understand the *analysandum* if we already understand the *analysans*. Treating 'looks red' as a straightforward function of its components in this way makes broadly speaking dispositionalist theories of colour viciously circular: there can be no hope of accounting for what it is to be red in terms of what it is to look red, as understanding what it is for something to look red itself presupposes an understanding of what it is for something to be red. As Sellars remarks: 'the minute one gives 'red' (on the right-hand side) an independent status, it becomes what it obviously is, namely 'red' as a predicate of physical objects, and the supposed definition becomes an obvious circle' (1956, 36; cf. Anscombe, 1965, 172-3). In so far as our understanding of what it is for something to look red depends upon our understanding of what it is for something to be red, then being coloured is also epistemologically prior to looking coloured.

III Being Coloured

I have argued so far that being coloured is prior to looking coloured. But this raises an obvious question: what, in the first place, is it for something to be coloured?

This question is particularly pressing in light of an argument that Noë presents for thinking that there *could* be nothing in the case of colour that corresponds to an object's 'real' shape. According to Noë, the view that there are 'real' colours, analogous to 'real' shapes, is incoherent:

colors, unlike shapes, it would seem, are themselves looks. This would seem to make apparent colors the looks of looks, a notion that is probably not coherent. The problem, at base, is this: If colors, in contrast with shapes, are ways things look, then it is not possible to explain our experience of the actual color of a thing in terms of looks, in the way that we were able to explain the experience of the actual shape of a thing in terms of our experience of how it looks (its P-shape) from here. For the way a thing looks with respect to color from here is just another experience of color. There is nothing, it would seem, that stands to color as P-properties (perspectival shape and perspectival size) stand to their corresponding properties. (2004, 133)

Consistent with the claim that being coloured is prior to looking coloured, there are three possible responses to this argument: deny that

colours are looks; deny that there are any looks of colours; or deny that there is any incoherence in predicating looks of looks. I will argue for the final option.

The first response to the putative incoherence of predicating looks of looks is to concede that 'real' colours — those properties that underlie patterns of apparent colour — are not themselves looks. But consistent with the phenomenology of colour constancy, we cannot avoid the argument in this way. If colours are those properties that we *perceive* to remain constant throughout variations in the object's appearance across different perceptual conditions, then colours are at least properties that *look* a certain way. To suppose otherwise would be to suppose that perceptual constancy is not a genuinely *perceptual* phenomenon.

An alternative response is therefore to accept the claim that colours are looks, but deny the claim that there are any further looks of these looks. This would be to deny that there are any apparent colours in Noë's sense, and effectively adopt an adverbialist theory of colour appearances. From the adverbialist perspective, phenomenal objectivism involves an illegitimate reification of 'looks' at the very outset. From the platitudinous claim that 'coloured things look or appear different as the circumstances vary,' the phenomenal objectivist infers that 'for each circumstance, there is a look, or an appearance, that the coloured thing has.' But, the adverbialist will insist, it is by no means obvious that the inference from 'x appears F' to 'there is an F-appearance that x has' is valid. By comparison, few would be prepared to accept the corresponding inference, made whilst removing your glasses, from 'this looks blurry' to 'there is something that has a blurry look'; in this case, it seems more natural to suppose that 'looks' functions as a verb and 'blurry' is merely an adverb that modifies the manner or way of looking.¹⁴

But whilst this approach avoids any incoherence there might be in predicating looks of looks, it is not unproblematic. Generally speaking, it is not sufficient to show that the inference from 'appears' to 'appearances' is always illegitimate to point out that there are particular cases in which the inference fails, as the illegitimacy of these inferences might simply depend on special features of the particular case. Indeed, there are a whole range of cases in which we are happy to use 'look' or 'appearance' as a substantive: when we talk about the look of a painting, an unkempt appearance, or when style magazines entreat us to 'get the look' of our favourite celebrities. As O'Shaughnessy, for instance, remarks:

14 For a suggestion of this kind, see Siewert (2006).

it is certain that appearances matter vastly to us. Think of 'the face that launched a thousand ships.' Here we are talking of the peculiar efficacy in human life of a mere visual appearance. It was the *look* of Helen's face, rather than its chemical or electrical or pheromonic properties, that caused such a furore. (2003, 570)

Nor is it only natural to talk of looks as properties of objects; it is no less natural to talk about the look or appearance of properties themselves. Although that which appears is often an object — the wall appears to be lighter over there, dirty over here, and so on — properties can themselves occupy the place of the grammatical object: colours can appear vibrant, washed out, darker in shadow, lighter than others, and so on.

This point does not merely depend on linguistic facts about the way in which we use the 'looks' locution. The naturalness of using 'apparent colour' as a substantive is underwritten by the fact that we can attend to, and by so doing identify, apparent colours. In the normal course of events, we don't notice apparent colours: if you glance at the wall, it will look to you to be homogeneously coloured, and you won't notice the differences in apparent colour where different parts of the wall are in shadow. The same goes for apparent shapes and sizes. We don't ordinarily notice the size or shape of the region of the plane perpendicular to the line of sight required to perfectly occlude an object (as Noë understands these apparent properties), but attend only to the 'real' shape or size of the object. But to say that we don't typically notice apparent properties isn't to say that we *can't* perceive them. We can attend to apparent colours, shapes and sizes by screening off the surrounding context, and adopting the painter's perspective (Noë 2004, 82-3, 65-7).

But once we admit in general the legitimacy of reifying 'looks,' the problem with denying that there can be looks of looks is that we are committed to an unmotivated asymmetry between looks of objects and looks of those looks. It would need to be explained in what way the supposedly legitimate inference from 'material objects look coloured' to 'there is a look that material objects have' differs from the supposedly illegitimate inference from 'coloured things look different as the circumstances vary' to 'for each circumstance, there is a look that the coloured thing has.' Both involve a reification of 'looks.' If there is a problem with the reification of 'looks' in the second case, it cannot be because it involves a reification of looks *per se*. There would have to be something special about the case that makes this reification illegitimate.

Pending further motivation for an adverbialist treatment of looks of looks — but also to undermine one source of motivation for this view — I therefore want to suggest a different response to Noë's argument: deny that the predication of looks to looks is incoherent at all. In particular, I want to suggest that the claim that predicating looks of looks is incoherent depends on a failure to draw a distinction between different senses of 'looks.'

Iterative looks statements are not obviously incoherent. Teenagers, for instance, invariably have a look that to their parents looks ridiculous. Here, looking ridiculous is predicated of a property of the teenager, namely the teenager's look. Of course, to say that iterative looks are not in general incoherent is consistent with the existence of a special problem in the case of colour. As Noë sees it, for instance, the problem with predicating looks of a 'real' colour is ultimately that 'the way a thing looks with respect to color from here [i.e. its apparent colour] is just another experience of color.' The thought seems to be that an apparent colour cannot stand to a 'real' colour in the way that apparent shape stands to 'real' shape, because the apparent colour and the 'real' colour both need to be understood with reference to our experience of the object.¹⁵ But, the objection continues, we cannot understand what it would be for an object to look one way in respect of colour in a particular set of perceptual circumstances, whilst simultaneously looking a different way in respect of colour more generally, because we cannot simultaneously experience the object as appearing two different ways with respect to colour. The circumstances in which an object is seen determines the way the object looks in respect of colour, and precludes its simultaneously looking any other way in respect of colour. So, for instance, we cannot experience the part of a wall that is in shadow as simultaneously looking grey and white, because the first look — the look in these particular circumstances, namely grey — 'screens off' the second look — the object's more general look, namely white.

But why limit the properties that we are able to perceive in this way? By contrast, we do not think that there is any problem in simultaneously perceiving a wall to be cracked, dirty, too high to climb, or to the left of the door. Presumably the specific problem with colour-related properties is supposed to arise because the two looks that we want to attribute to the object are *incompatible*: the wall in shadow cannot simultaneously *look* both grey and white, because nothing can *be* both grey and white.

But does the wall simultaneously look different colours in the same sense of 'look'? It is not clear that it does. It is possible to distinguish two senses of 'looks,' corresponding to two different types of properties of objects. In the *perspectival* sense, looks are essentially tied to particular circumstances of perception. Because they are relations between objects and conditions of perception, and not relations between objects

15 I assume that Noë does not mean to make the identity statement that he appears to here: that the object's apparent colour *is* an experience of colour. This would make the apparent colour a property of the subject, not a property of the object. The claim that we can only *understand* the property in terms of experience of it is intended to avoid this problem.

and perceiving subjects, perspectival looks (Noë's apparent properties) are real properties of the mind-independent environment; but they are properties that can only be perceived in specific circumstances of perception. This is a very fine-grained sense of 'looks': fine-grained enough to generate a different property for every different way an object can look. By contrast, in the *non-perspectival* sense, looks are not essentially tied to particular circumstances of perception. In the non-perspectival sense, an object's look transcends specific conditions of observation; non-perspectival looks are properties that can be perceived across variations in the perceptual conditions. As such, they are more coarse-grained than perspectival looks.¹⁶

Given that perspectival and non-perspectival looks are different *types* of property, they are not mutually incompatible. An object can simultaneously look non-perspectivally *F* and look perspectivally not-*F* (or look perspectivally *G*, where *G* is inconsistent with *F*). A painting that has the non-perspectival look of a Rembrandt might have the perspectival look of a Vermeer, if the conditions of perception are not appropriate, for instance if the painting is badly hung.¹⁷ Likewise, the part of the wall that is in shadow might look perspectivally grey given the conditions in which it is seen (i.e. in shadow), yet still look non-perspectivally white. Because they are different kinds of property, there is no reason why one should screen the other off: properties of different kinds are not mutually incompatible.

The distinction between perspectival and non-perspectival looks can be spelt out in more detail by considering the question of what constitute normal conditions for the perception of colour. Dispositionalist theories of colour typically identify what it is for something to be coloured in terms of what it is for something to look coloured in one very particular set of conditions: normal conditions. In doing so, these

16 This distinction between different senses of 'looks' is inspired by the discussion of 'objective looks' in Martin (2007). The notion of a non-perspectival look is related to Peacocke's notion of an 'observational concept,' which is the concept of a property like squareness, such that 'It is not epistemically possible for someone who has the concept of squareness that: from all the different angles from which an object may be seen, it is seen as square, his perceptual mechanisms are operating properly, the circumstances of perception (the environment in which the causal processes take place) are normal, the object is constant in shape, and yet that presented object not be square' (1983, 99). The distinction is perhaps also related to one that Noë himself draws (2004, 84) in the case of shape between looks, like the property of being *elliptical from here*, and 'visible qualities,' like being *circular (simpliciter)*. Neither Peacocke nor Noë, however, offer analogous accounts of colour.

17 Noë, following Hacker, uses a similar example (2004, 80, 149-50).

theories presuppose a non-trivial way of picking out the privileged set of normal conditions.

A major problem with this is that there does not appear to be any one unique set of conditions that count as normal. As Sellars remarks, for instance, which conditions are normal for a given kind of perception is pre-theoretically specified by 'a list of conditions which exhibit the vagueness and open texture characteristic of ordinary discourse' (1956, 44, §18). At least one of the things it means to point to the open texture of ordinary discourse in this context is to say that there are a whole range of conditions in which we ordinarily suppose that we perceive an object to be the colour it really is. For instance, it does not generally make a difference to our ability to veridically determine an object's colour if we perceive it under natural daylight or an artificial illuminant that approximates to natural daylight. If we perceive it in natural daylight, it does not generally make a difference which of the myriad different phases of natural daylight we perceive it under, such as direct midday sunlight or the skylight of an overcast afternoon. Nor does it generally matter whether the object is directly or indirectly illuminated, against which colour background it is seen, and so on. Our experience of the object's colour is typically robust across these different, but perfectly normal, viewing conditions: perceiving the object in any of these conditions provides a good, albeit defeasible, warrant for judging that the object really is the colour that it is perceived to be.

The problem with the way in which dispositionalists standardly invoke normal conditions in their analysis of what it is to be coloured is that across the broad class of conditions that count as 'normal,' there is just the kind of variation in the character of colour experience to which they appeal to motivate the dispositional analysis in the first place. Although we generally veridically perceive the an object's colour across the range of normal viewing conditions, there is nevertheless substantial divergence in the object's appearance in these conditions: just think again about the partially shaded wall. If we are operating with a sufficiently fine-grained sense of looks to motivate the claim that an object's appearance changes as the perceptual conditions change, then objects *look different* as conditions which count as normal (given the open texture of ordinary discourse) vary. It is only if we operate with a more coarse-grained sense of looks that we are able to accommodate the fact that objects look *the same* in these different conditions.¹⁸

18 Noë himself notes (2004, 142) that the way an object looks can vary in 'normal' conditions, although he thinks that this means we need to identify colours with *sets* of apparent colours, rather than non-perspectival looks properties underlying these sets of apparent colours.

The distinction between perspectival and non-perspectival looks properties obviously applies beyond the case of colour, perhaps most clearly in the case of shape and size. Just as an object's non-perspectival colour is a property that we perceive in all roughly speaking normal circumstances, the object's non-perspectival shape is a property that we perceive across conditions of viewing that are normal for shape perception.

Indeed, the comparison to shape in turn helps further elucidate the notion of a non-perspectival look. To say that colours are non-perspectival looks is consistent with, but does not entail the view that colours are *nothing more than* non-perspectival looks, just as saying that shapes are non-perspectival looks does not entail that being shaped is nothing more than being such as to look shaped across a wide range of more or less normal conditions. Shapes have a functional role that extends beyond their being such as to look a certain way to suitably placed perceivers. In particular, they affect the way in which their bearers interact with other material objects, determining, for instance, whether they roll down shallow inclines or fit through holes cut in rigid materials. Similarly, it is consistent with the claim that colours are non-perspectival looks that the functional role of colour is not exhausted by their effects on perceiving subjects. So, for instance, perhaps colours can affect the colours of other material objects, as in cases of simultaneous contrast or (at least in a rough-and-ready sense) physical colour mixing (Brookes 1992, 194-202). It is also consistent with the claim that colours are non-perspectival looks that colours are identical with surface reflectance properties of material objects, as physicalists about colour suggest. The important point is just that colours are *at least* non-perspectival looks. The phenomenology of colour constancy commits us to the view that colours are non-perspectivally perceivable properties; whether there is more to say about them is an open question.

IV Conclusion

Noë's phenomenal objectivism aims to give an account of what it is for something to be coloured in terms of what it is for something to look coloured in particular perceptual conditions. Phenomenal objectivism is no more successful than previous attempts to account for what it is to be coloured in this way: it falls prey to the same basic objections as traditional dispositional theories of colour, and indeed, structurally similar objections to phenomenalist theories of the external world.

The alternative view, that to be coloured is to look non-perspectivally coloured, avoids these problems. Consistent with the phenomenology of perceptual constancy, this view can allow that colours are properties that are perceived to remain constant throughout variations

in the perceptual conditions. This perceived commonality can in turn explain the epistemological significance of colour perception: colours are the properties that govern or regulate the way in which an object's appearance changes as the conditions change, the perception of which makes perceptually based action possible. In this respect, the view that colours are non-perspectival looks is consistent with the claim that being coloured is prior to looking coloured.

At the same time, this view is able to acknowledge that there was *something* right with phenomenal objectivism, and broadly speaking dispositional analyses of colour, all along. These views go wrong in taking perspectival looks as basic, and formulating an account of being coloured in these terms. But the grain of truth in these views is that there is indeed an intimate connection between being coloured and looking coloured.¹⁹

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