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Constancy in Variation

An Argument for Centering the
Contents of Experience?*Kathrin Glüer*

1. The Phenomenology of Constancy in Variation

Let's start with a bit of phenomenological investigation. Think of the following scene: A bright early summer day on the Schleswig-Holstein plain. You are staying with friends at their old country house and are in the middle of lunch in the glazed verandah. Glasses and silverware sparkle in the bright sunlight. A huge bunch of lilacs flow over the brim of an antique crystal vase. The thick, starched table cloth is spotlessly white all over. Your plate is perfectly circular. You are happy to look out of the large windows and enjoy the view over the green meadows and down the avenue leading up to the house. Its ancient poplars are all of the same size.

How, exactly, does that table cloth look? It looks white all over. But at the same time, the vase, cutlery, and china all cast shadows over it, and its shadowed parts look different, darker and more grey than its unshadowed parts. In the shadows of the lilacs, the cloth even looks slightly purplish. Or take your plate. It certainly looks circular. But from where you look at it, its look also has something oval to it.¹ Look at the poplars next. They do look to be all of the same size. And yet, those in the far distance also somehow look smaller than those close by. None of this would ever tempt you to judge that the table cloth has purplish-grey spots, that the plate is oval, or that the poplars in the distance are smaller than those close by. Of course not, you might protest—after all, all these things look precisely as spotlessly white table cloths, circular soup plates, and avenues of equally tall poplars look under circumstances just like these and from a perspective just like yours. So, the most natural way to report how for instance the plate looks is that it looks circular. Nevertheless, there is a sense in which its appearance can also be described as oval.

¹ Throughout this paper I shall use the terms “oval” and “circular” as contraries.

Moreover, there is a sense, in which the appearance or look of these things changes as you move around in relation to them. If you get up or bend over your plate, its look changes—it looks more circular than before. If you hold it up so that it gets to be perpendicular to your line of sight, it will no longer look oval in any sense. If you walk down the avenue after lunch, there is a sense in which those distant trees will look larger and larger as you walk. And the shadows on the table cloth will lengthen and change color as the afternoon turns into evening. Yet, through all of this, the table cloth will continue to look white all over, the plate will look circular, and the trees the same in height. And none of it will fool you into thinking that the cloth changes color, the plate shape, or the trees size. Everything just looks as things of constant color, shape, and size look under these circumstances and from these perspectives.

Let's take a closer look at the ways in which things look to be shaped, and their variations. Consider another piece of the very same china on the table in front of you: a large oval platter. That platter looks oval. More precisely, it looks oval in the way oval things look from your perspective. If you hold it up so that it gets to be perpendicular to your line of sight it will still look oval—in the way oval things look when perpendicular to the line of sight. Now, keep the platter perpendicular to your line of sight and look at your plate again—there is a sense in which it, too, looks oval. If you take care to adjust your distances and angles, you can even arrange the situation to be such that platter and plate have the same "occlusion shape and size". The occlusion shape of an object can be understood as "the shape of the patch needed to occlude the object on a plane perpendicular to the line of sight" (Noë 2004, 83), and the occlusion size would be the size of that patch at a particular location on the line of sight. Two seen objects then have the same occlusion shape and size if each of them can be precisely occluded by the same patch on equi-distant occlusion planes. But even though there is a sense in which both platter and plate look oval, they do *not* look the same. This holds even in a situation where they do have the same occlusion shape and size. Simplifying a bit, we can say that the plate looks the way circular things (of a certain size and at a certain distance) look at an (certain) angle—it has what we can call a "circular-at-an-angle look"—while the platter looks the way oval things (of a certain size and at a certain distance) look when perpendicular to the line of sight—it has an "oval-and-perpendicular look".²

Having a circular-at-an-angle look and having a oval-and-perpendicular look are two clearly distinct ways of looking oval. One of them disposes you to judge that the object you see is circular, while the other disposes you to judge that it is oval. And they do not only dispose you to judge in these ways, they provide you with reasons or evidence for forming the relevant beliefs. Most importantly, however, there are clear

² Cf. Matthen 2006, 1164, for quite similar observations.

phenomenal differences between these looks.³ This is maybe most easily illustrated by means of a display as in following figure:

The platterplate figure is ambiguous. It can easily be seen in two ways: As a circle at an angle, corresponding to the way the plate on the right (most naturally) looks. Or as an oval perpendicular to the line of sight, corresponding to the way the platter on the left (most naturally) looks. There is a clear Gestalt switch here. The looks I am talking about are ways things look after they have taken on a Gestalt, looks we can call “gestalted looks”. The platterplate can easily have a circular-at-an-angle look, and it can equally easily have an oval-and-perpendicular look—but not both at the same time. These are two different gestalted looks. What is particularly noteworthy here is that the platterplate can switch from having one look to having the other while its occlusion shape remains constant.⁴

And so can the plate and the platter. With a little practice, you can see the plate as oval-and-perpendicular. This ability of transforming an experience as of an object at an angle into an experience as of an object perpendicular to the line of sight has fascinated both painters and philosophers. The ability to perform these Gestalt switches on real life objects (such as plates) is a skill known as the “painter’s eye”. When you see the plate as oval-and-perpendicular, we might say, you see its painter’s look.⁵ Normally,

³ Chalmers distinguishes between a “simple” and a “complex” view of the phenomenology of *color* constancy (Chalmers 2006, 85ff). On a simple view of the phenomenology of *shape* constancy, these looks would be phenomenally identical. The difference would relate to belief only. I think that in the case of shape constancy, the simple view is quite clearly mistaken.

⁴ You might not share the underlying view of the metaphysics of looks here. You might for instance think that the platterplate (as displayed) indeed *has* both looks at the same time. But even if we disagree on this, I take it that you’ll agree that we cannot *experience* both of these looks at the same time. And in that case, we can agree on the substance, if not the letter, of a lot of what I shall argue in this chapter. However, if you have a radically different view of the metaphysics of looks, for instance along the lines of Mike Martin’s “parsimony” account according to which looks are just the basic sensible properties of things (such as color or shape; cf. Martin 2010), we won’t agree on much of what I am going to say.

⁵ These observations are very far from original, of course. Here is Sainsbury referencing Leonardo: “The different appearance of, on the one hand, a two-colored shirt and, on the other, a uniformly colored shirt differentially illuminated is fairly hard to describe in words, and considerable painterly skill is required to represent it on canvas. (Leonardo da Vinci said: ‘light and shade should blend without lines or borders, in the manner of smoke’ (*Notebooks* Section 492). . . .) The difference, however it is exactly cued, is quite apparent: it is a difference in appearances, and is clearly phenomenally available. We can normally easily tell just by looking which case we are dealing with” (Sainsbury 2007, 10). As Allen 2007, 146, reports, the German psychologist Eward Hering noted in the 1920ies that we do not see the darkness of a shadow cast

things—in cooperation with the visual system—simply present one of their gestalted looks, the look that we most naturally describe by using the predicate for the shape the object actually has—its “objective shape”. The plate most naturally looks circular, i.e. has a circular-at-an-angle look. Acquiring the ability to see the plate (or other objects seen at an angle) as perpendicular to the line of sight has been thought of as acquiring the ability of recovering an earlier stage of visual processing, i.e. recovering something like a two-dimensional image of the seen object (cf. for instance Noë 2004, 175ff). But this is misleading. When you see the plate as perpendicular to the line of sight, you do in a sense “flatten” it, but the resulting “flattened Gestalt” is that of a very thin object. This look is as gestalted and as object-presenting as the other, more natural look. Performing a Gestalt switch on a seen object makes that object look like *an object that has a very different shape*—but the object nevertheless looks like an ordinary material object with an ordinary (if rare) shape.⁶

Phenomena such as these—call them *constancy in variation phenomena*—have led philosophers of perception to think of visual perceptual experience as sensitive to, or presenting us with, two different kinds of properties: Many people think that on the one hand, we are perceptually aware of the color, shape, and size of the objects around us (at least within certain ranges), and these are objective and (often) constant features of these objects.⁷ On the other hand, we invariably perceive things from some perspective or other. And their appearances do vary with perspective. Shape and size appearances systematically vary with our spatial relation to objects, and their color appearances with the light in which we perceive them. Thus, there seems to be a curious duality to the properties we are aware of in experience: we not only seem to be aware of what we can call “*objective* shape, size, and color properties” but also of what we can call “*perspectival* shape, size, and color properties”.

With this terminology in hand, it will seem natural to describe the phenomenology of constancy in variation in a particular way. We should not forget, however, that the idea that we in fact are aware of two different kinds of properties in these experiences is an *hypothesis* supposed to explain the phenomena. As we shall see later, I think that at least in its currently most popular versions this hypothesis is probably false. And the way of describing constancy in variation phenomena suggested by using the terminology of objective and perspectival properties is, I think, ultimately misleading.

Still, this terminology is initially useful in further bringing out that there are two aspects to the variation in the phenomenology of constancy in variation. Take platter and plate as displayed above. The plate most naturally looks circular-at-an-angle. But

by a bit of paper hanging from a lamp on another piece of paper as a property of the paper, but rather as “an incidental darkness that lies on the paper”.

⁶ “Flattening” the Gestalt of a non-flat object usually is difficult because it involves reinterpreting an huge amount of cues the visual system gets from things such as shadows and light reflexes. The absence of such cues in figures like that of the platterplate make Gestalt switches quite easy on them.

⁷ Of course, objects can change objective color and even size and shape, but this kind of variation solely depends on their intrinsic features and not on our perspective.

there are many ways of looking circular-at-an-angle, and as we move around the plate, it has any number of these. More precisely, which of these it most naturally has varies with the perspective of the subject. That is one aspect of the variation we are interested in. We can describe the plate’s “natural look” as one of looking objectively circular, but perspectively oval. Moving around the plate, we can then say, the perspectival dimension of its natural look changes, while the objective dimension remains constant.

The platter, on the other hand, most naturally has an oval-and-perpendicular look—it looks both objectively and perspectively oval. For an object of the platter’s size and shape, there is only one way of looking oval-and-perpendicular at every distance. But if you move around the platter, it will display a variety of different oval-at-an-angle looks. This again is the first aspect of the variation we are interested in. The relevant changes can be described as changes in the perspectival dimension of the platter’s look. But this is not the only way in which looks can vary. In the display above, platter and plate have the same occlusion shape. Presumably, this would mean that the perspectival dimension of their looks is the same. Yet, the plate most naturally looks circular-at-an-angle, while the platter most naturally looks oval-and-perpendicular. And these are very different looks. What this would seem to show, then, is that the way an object looks in an experience is not (fully) determined by the perspectival dimension of that look.

This second aspect of the variation we are interested in is even more clearly illustrated by the possibility of Gestalt switches on one and the same otherwise completely unchanged object. The platterplate, for instance, can almost as easily be seen as circular-at-an-angle as it can be seen as oval-and-perpendicular. And the more you practice, the easier it becomes to experience the painter’s looks of about every object around you. This would seem to show that the perspectival dimension of the way an object looks can remain constant while the objective dimension changes. Consequently, if we want to capture both aspects of variation in the phenomenology of constancy in variation, and we want to do it in terms of an objective and a perspectival dimension, we have to allow the phenomenology to *independently vary* along each of these dimensions.

And even though I think that the terminology of objective and perspectival properties or dimensions is apt to mislead here, I take it to be an essential characteristic of constancy in variation that variation has these two aspects: There typically is a natural way an ordinary material object looks from a certain perspective, and this natural way of looking varies with your perspective. But even if object and perspective are kept unchanged, the way the object looks can vary: it can change Gestalt. Let’s call this the “dual variability” of constancy in variation. To capture dual variability, an adequate account of the phenomenology of constancy in variation must accommodate observations of the following two kinds:

(DV₁) There are many ways of looking circular-at-an-angle. Which of these, if any, an object *o* (of constant shape and size) most naturally has, varies with the perspective of the experiencing subject on *o*.

(DV₂) Typically, if an object *o* most naturally looks circular-at-an-angle from a perspective *p*, a Gestalt switch such that *o* looks oval-and-perpendicular from *p* is possible.⁸

As we just saw, if we describe constancy in variation in terms of objective and perspectival properties, we can indeed capture dual variability by allowing phenomenology to independently vary along both the objective and the perspectival dimension. But using this terminology might obscure another important feature of the phenomenology we are interested in. For it at least suggests that looking at a circular plate at an angle we are *presented with* two distinct and independent properties *as such*. It at least suggests, that is, that each of these two properties has some sort of distinct phenomenal reality within one and the same experience. This would plausibly be the case if there were an isolable element of the experience’s (shape) phenomenology corresponding to each property—a perspectival shape quale and an objective shape quale, if you like. But there isn’t. A (gestalted) shape look, it seems to me, has a kind of *phenomenal simplicity or unity* that is not easily captured in the terminology of objective and perspectival properties.

The phenomenal simplicity or unity of an object’s gestalted shape look can be brought out by comparison with experiences of objects as both shaped and colored. Describing constancy in variation in terms of two different kinds of properties suggests that these are just parallel cases: The phenomenology of experiencing the plate as circular-at-an-angle should be just like that of experiencing it as circular and white. But it is not. Imagine the circular white plate slowly changing color while its shape stays the same. It goes from white via light yellow, yellow, and light orange to bright red. Then, it stops changing color, and starts to slowly change shape, becoming more and more oval. The changes in the way the plate most naturally looks, I take it, would be paradigm examples of experiencing two kinds of properties varying independently. At each point, there clearly is an isolable element of the phenomenology that has stayed the same as a moment before, while there is a different element that has changed. Contrast that with a series of experiences of a slowly rotating, circular white plate in front of your eyes. Quite analogously to the color change case, the change in the natural shape look of the plate could be described as its slowly changing perspectival shape while its objective shape stays the same. But there is no sense in which these two properties are presented as independent here. There is no isolable element of the shape phenomenology that stays just the same while some other, isolable element of it changes. Shape-wise, the *total phenomenology* of experiencing the plate changes as it rotates. A gestalted shape look has a kind of *phenomenal simplicity or unity* that a shape-and-color look does not have. The latter is phenomenally complex in a way the former is not.

⁸ ‘Typically’ because a) this does not hold for a circular object perpendicular to the line of sight, and b) I don’t want to exclude the possibility of there being other kinds of objects, perspectives, or subjects such that this does not hold. For a little more on this, see fn. 45.

Insisting on the simplicity or unity of a *gestalted* look is not to deny that, as the plate rotates in front of your eyes, you can perform a Gestalt switch on it at any moment. Indeed, you can go from experiencing the plate as rotating to experiencing it as fixed at a particular angle and changing shape. In particular, you can switch from experiencing it as rotating to experiencing a series of the plate’s painter’s looks. You can also switch back and forth between the natural and the painter’s Gestalt. Insisting on simplicity is not only not in tension with this aspect of the variation in constancy in variation, the latter actually brings the contrast between looking circular-at-an-angle and looking circular and white into even sharper relief. This is because there is no problem whatsoever in imagining a series of experiences in which the plate appears to both change shape and color at the same time. That this should be possible is something like the hallmark of experiencing two independently varying properties. And it is precisely what we do not have in constancy in variation. You can indeed switch Gestalt on the plate at any moment—but you *cannot* experience it as both rotating *and* experience a change in its painter’s look at the same time.⁹ Shape phenomenology—despite its dual variability, or rather because of the particular nature of its dual variability—has a simplicity or unity which shape-and-color phenomenology does not have.

This simplicity or unity I take to be another essential characteristic of the phenomenology of constancy in variation. An adequate account of the phenomenology of constancy in variation must accommodate it:

(PS) Gestalted shape looks are phenomenally simple/unified.

As far as I can tell, both the size and the color phenomenology of experiencing objects are analogously simple or unified.

The combination of dual variability with phenomenal simplicity or unity makes the phenomenology of the experience of constancy in variation rather intriguing.¹⁰ Its explanation is no easy task for an account of perceptual experience. In this chapter, only intentionalist accounts of experience will be considered. Moreover, I shall almost exclusively concentrate on shape properties, shape looks, and shape phenomenology.

⁹ That, of course, does not mean that you cannot experience the plate as rotating and changing shape at the same time. The plate can do that, and we have some idea of what it might look like. But such a series of experiences does not involve any Gestalt switches between natural and painter’s looks (or any other “fixed angle looks”). Rather, what changes in such a series is the natural look of the plate only: Presumably, it goes from looking circular-at-an-angle to having a series of different oval-at-an-angle looks.

¹⁰ We could make things even more complicated by noting that—despite their non-identity—there also is a certain *phenomenal similarity* between looking circular-at-an-angle and looking oval-and-perpendicular—as well as between these two looks and looking oval-at-an-angle. After all, there is something oval about all of these appearances. This similarity can also be characterized in terms of perspectival properties. All these cases, we might say, are cases that somehow involve perspectival ovalness. Chalmers notes the analogous similarity between shadowed white and unshadowed grey. He suggests an explanation in terms of the representation of objective as well as perspectival properties, but does not think a representational explanation is mandatory. Cf. Chalmers 2006, 88.

2. Intentionalism and Constancy in Variation

Intentionalism is the claim that experiences are conscious mental states with representational content. Most intentionalists construe typical experiences as being “about” ordinary material objects such as table cloths, plates, and trees. They also hold that experiences ascribe sensible properties such as color, shape, and size to these objects.¹¹ I shall call this position “standard intentionalism”. According to standard intentionalism, visual experience has what I have called a “naive semantics” (Glüer 2009): experience content is construed as being of the form *x is F*, where *x* is a material object and *F* a sensible property. My own preferred version of intentionalism is non-standard in that it construes visual experience as having “phenomenal contents” instead. According to “phenomenal intentionalism”, visual experiences have contents of the form *x looks F*, or *it looks as if x is F*, and even here *x* is a material object and *F* a sensible property.¹²

Naturally, intentionalists also acknowledge the sensory phenomenology of perceptual experience. But there is no consensus about the exact nature of the relation between an experience’s content and its phenomenal character. Representationalism is the claim that phenomenal character can be explained or accounted for by means of the representational content of experience. Representationalists about visual experience thus hold that the representational content of a visual experience determines its phenomenal character. Strong representationalists hold that representational content both determines, and is determined by, phenomenal character. Many intentionalists find representationalism attractive. If representationalism is true, *all* differences in phenomenal character have to be accounted for by means of differences in representational content. But even if you are not a representationalist, you might still think that a certain range of phenomenal differences is best accounted for by means of content. Whether they are representationalists or not, many intentionalists take the variation in the phenomenology of constancy in variation to be within the range best explained by means of content.

In this chapter, I shall assume both intentionalism and the claim that the variation in the phenomenology of constancy in variation is best explained by content. And the same goes for the *constancy* in the constancy in variation phenomenology. Through all the phenomenal variation of your experiences as you walk down the avenue, the trees do not seem to change size, after all. The standard intentionalist’s initial idea is precisely that experience does represent the *objective* color, shape, and size properties of their objects. And then, explaining variation would seem to require an additional element in the content.

¹¹ There is no consensus on what properties are sensible beyond these basic ones.

¹² For more on phenomenal intentionalism, cf. Glüer 2009, Glüer 2012a, Glüer 2012b, Glüer 2014, Glüer 2015. One motivation for taking this position is that it makes it so much easier to hold a belief theory of experience, but that won’t be relevant for this chapter. I take the idea of phenomenal contents to be interesting in its own right.

writers have recently suggested that experience contents in general are best construed as *centered contents*. This, it has been argued, provides us with an easy and natural way not only to distinguish between the objective and the perspectival, but also accounts beautifully for the perspectival nature of the latter (cf. Brogaard 2010, Egan 2010). The basic idea of “centered dual representationalism” is to construe the difference between the objective and the perspectival in experience content as a difference between—in Egan’s terminology—“boring” and “interesting centering features”.¹⁶ The latter are interesting in the sense that the center matters to their instantiation—whether a given object has an interesting centering feature in a centered world depends on the center. This is not the case for what Egan calls “objective” properties, or “boring centering features”; for their instantiation in a world it does not matter what that world is centered on. The suggestion then is that perspectival color, shape, and size are interesting centering features, while objective color, shape, and size are boring. Thus, both kinds of color, shape, or size features can be represented by the same experience without contradiction, and both kinds can be instantiated (at a world centered upon the subject and the time of the experience) by the same object. Just as a poplar can be both in Wewelsfleth and further away than all the others in the avenue, it can be the same height as the others and smaller from here. The naturalness and ease with which the centered worlds framework thus promises to deal with the constancy in variation phenomena would be an additional merit providing support for the claim that propositional attitude content in general is best construed as centered.¹⁷ The main substantive difference between Brogaard’s and Egan’s views is that Brogaard’s is a version of objective dual representationalism, while Egan’s is subjective.¹⁸ But Brogaard

¹⁶ For a comment on the importance of the distinction between properties and centering features, see Chalmers 2006, 57. According to the initial (2004) version of Chalmers's *two-dimensional model of experience content*, experiences have two kinds of contents: centered contents and Russellian contents. The latter are determined by the former in a way similar to the Fregean model of sense and reference. Thus, centered experience contents do represent properties (under modes of presentation). This does not change in the (2006) version where another dimension of content is added to the model: "Edenic content". Initially, Chalmers's two-dimensional construal of experience content thus is *not* a form of dual representationalism. To deal with color constancy, however, Chalmers does suggest a form of dual representationalism in Chalmers 2006, 84ff. More precisely, he suggests that color experience represents both objective and perspectival properties under modes of presentation.

¹⁷ For a similar argument, see Egan 2006a. Here, Egan makes the case that the primary-secondary quality distinction is best understood as a distinction between boring and interesting centering features. But the argument is easily applied to the distinction between objective and perspectival properties, which, he suggests in Egan 2010, is—along with the general distinction between “objective” and “projected” properties—best construed as a distinction between boring and interesting centering features. Egan also suggests that Shoemakerian “appearance properties” are best understood as interesting centering features (Egan 2006a). In Egan 2010 he suggests that unique hues are best construed as centering features, while in (Egan 2006a), he claims that colors in general are to be understood as objective properties, thus generating at least some internal tension between his views (as acknowledged in Egan 2010, 89, fn. 22).

¹⁸ Egan himself is mostly concerned with larger classes of features such that “we have perceivers systematically attributing incompatible-looking features to things in their environment and no principled basis for attributing error to one party rather than the other” (Egan 2010, 70). But according to him

[v]isual-field shapes and sizes—for example, the elliptical appearance presented by the circular (and, indeed, still also circular-looking) plate when it is held at an angle to the

also argues that there are specific *phenomenological* reasons for favoring a centered view over a “classical” version of objective dual representationalism. The centered view, she argues, is better at capturing what we might call certain “phenomenal absences”—such as that of the subject of an experience from its phenomenology. Before turning to these claims, however, I would like to investigate how good dual representationalism actually is at capturing those features of the phenomenology of constancy in variation we observed above. In particular, I would like to investigate how well it lives up to the promise of accounting for dual variability. As I shall argue in the next section, subjective dual representationalism, whether centered or not, turns out to be bound to miss the full extent of variation in the phenomenology of constancy in variation. And objective dual representationalism, be it centered or not, isn’t very good at preserving it, either. There appears to be a dilemma lurking here. Dual representationalism can either account for dual variability or for phenomenal simplicity, but not for both at the same time.

3. Dual Representationalism and Dual Variability

Dual variability is an essential characteristic of the phenomenology of constancy in variation. As observed above, it is tempting to think of this as variation along two dimensions—an objective and a perspectival dimension. Both dimensions, the thought would be, influence phenomenology. We could thus explain the gestalted look an object *o* of an experience *e* has (at a time *t*) as a function of *both* the objective and the perspectival properties *e* represents *o* as having. Dual variability requires two dimensions of phenomenal variability, and if these are to be explained by means of the representation of two different kinds of properties, both must be such that they can independently of the other influence phenomenal character. In particular, it cannot be the case that the phenomenal character of an experience *e* is determined solely by the perspectival properties *e* represents its object as having.

eye—are also plausible candidates. There is (one wants to be able to say) some aspect of the way my visual experience presents the plate when I am looking at it edge on that is incompatible with an aspect of the way your visual experience represents it when you are looking at it face on. But it is not attractive to say that, because of this incompatibility in how we represent the plate, it is likely that one of us is representing it correctly while the other is misrepresenting it (Egan 2010, 70f).

Egan thus is mostly interested in apparent *inter-subjective* incompatibilities, while the (apparent) incompatibility displayed by constancy in variation is primarily an intra-subjective, even intra-experiential incompatibility. Given his interests, Egan is less detailed on what precisely “visual-field shapes and sizes” would be. But he is quite clear that all the centering features that are good candidates for satisfying the overall job-description that he gives are such that they are “tied up with the effects that things have on our sensory apparatus” (Egan 2010, 88). Paraphrasing Egan closely, a candidate self-locating correctness condition then could be something like this: the one that is satisfied by all and only the predicaments the subjects of which are such that the relevant object is disposed to to cause B sensations in them (cf. Egan 2010, 88ff), where B is a phenomenal type.

3.1 Subjective Dual Representationalism and Dual Variability

Concerning their natural looks, dual representationalism construes the experiences of platter and plate (as displayed above) as representing the same perspectival property—perspectival ovalness—while differing in the objective property represented. Both experiences are entirely veridical. And when you flatten the Gestalt of the plate, the idea is, what changes is precisely the objective property your experience represents. This change results in a change in phenomenal character—and makes the “flattened” experience non-veridical. Both the change in phenomenal character and the change in truth value resulting from flattening would seem due to the change in objective property represented. Any version of subjective dual representationalism construing perspectival properties as relations between seen objects and the phenomenal characteristics of seeing them faces a problem here, however. It is difficult to see how it could preserve this combination of ideas.

Consider the natural looks of platter and plate as displayed above. Take an experience e_1 of the plate in which it looks circular-at-an-angle. e_1 has a phenomenal character of kind CA, the phenomenal character shared by all experiences in which objects have this particular circular-at-an-angle look. If we for instance construe perspectival ovalness along Shoemakerian lines as the property of presently causing a CA experience, e_1 represents the plate as objectively circular and as presently causing a CA experience. But now take an experience e_2 of the platter in which it looks oval-and-perpendicular. Intuitively, e_2 has a phenomenal character of kind OP, the kind shared by all experiences in which objects have this particular oval-and-perpendicular look. And OP is not identical to CA. But e_2 is supposed to represent the very same perspectival property as e_1 , i.e. the property of causing a CA experience. But if it does that, it becomes illusory. Thus, it seems, the subjective dual representationalist is forced to either give up the idea that e_1 and e_2 veridically represent the same perspectival property—or dual variability. If both e_1 and e_2 veridically represent perspectival ovalness construed as the property of presently causing an experience of phenomenal character O, then e_1 and e_2 cannot differ in phenomenal character. A subjective dual representationalist construing perspectival properties as “occurrent appearance properties” (Shoemaker 2000) thus has serious trouble accounting for dual variability.

And things don’t get much better if you take “dispositional appearance properties” instead. If perspectival ovalness is a disposition to cause experiences of a certain phenomenal kind, the first question is: which kind? OP or CA? There wouldn’t seem to be any principled reason to favour either, but let’s say we settle for CA. Now, if we hold on to the idea that e_1 and e_2 represent the same perspectival property, e_2 will represent the platter as disposed to cause CA experiences. Of course, something might actually be so disposed while presently causing an OP experience. But is the platter so disposed? I don’t think so—in all relevantly similar circumstances and to all relevantly similar subjects, the platter most naturally looks oval-and-perpendicular. As far as I can tell, that means that in the sense relevant here the platter is disposed to cause OP experiences, not CA experiences. So, even on this version of subjective

dual representationalism, experiences like e_2 would come out as illusory. Unless we give up either the idea that e_1 and e_2 represent the same perspectival property or dual variability.

Nor does centering help here. A centered subjective dual representationalism such as Egan's would have exactly the same problem. Of course, it cannot be excluded that we might come up with novel versions of subjective dual representationalism, versions that can preserve both the idea that e_1 and e_2 represent the same perspectival property and dual variability. But as long as we construe perspectival properties as relations to experiences of certain phenomenal types, it is not at all easy to see how that might go.

An idea might be to think of the total shape phenomenology of an experience as complex. Being a CA experience then could be understood as somehow composed out of more basic phenomenal elements corresponding to the objective and perspectival properties represented by a CA experience. As far as I can see, there are so far no suggestions as to how an intentionalist might do this. The worry about any such account, however, would be that it won't be able to preserve *phenomenal simplicity or unity*.

It seems fairly clear that phenomenal simplicity indeed is something that many dual representationalists want to preserve, at least implicitly. In effect, they often do so by adopting another idea of Shoemaker's. It is expressed in the following passage where he comments on his claim that color experience represents both a "phenomenal" property and a color property:

[T]hese are not independent and separable aspects of the experience's content; rather, the experience represents the color *by* representing the phenomenal property. To put it otherwise, we see the color of a thing *by* seeing a phenomenal property it presents (Shoemaker 1994, 35).

As far as I can see, Shoemaker himself does not apply this idea to the phenomenon of color constancy. But it influences a number of dual representationalists, both of the subjective and of the objective persuasion. I shall call the idea that an experience somehow represents one property *by* representing another, that we see the one *by* seeing the other, the "objective-by-perspectival idea". Whatever it precisely means for the form of the representational content in question, coupled with the claim that it is in fact only one of the two properties it represents that determines the phenomenal character of an experience, the objective-by-perspectival idea would provide an explanation of phenomenal simplicity.¹⁹ But of course, this explanation of simplicity comes at the price of dual variability.

¹⁹ Shoemaker explicitly holds that color experience represents both phenomenal properties and color properties, and that only one of these determines the phenomenal character of color experience:

If I am right, a color experience represents an object as having a "phenomenal" property that is constituted by a relation to sense-experience—and *it is the representation of this property that gives the experience its phenomenal character*. The experience also represents the object as having a certain color (Shoemaker 1994, 35, emphasis added).

But again, he is not concerned with color constancy here.

3.2 Objective Dual Representationalism and Dual Variability

If perspectival properties are fully objective in the sense of being just like objective or "intrinsic" properties in that they are just "there to be picked up regardless of whether one is the kind of perceiver that can pick them up and regardless of whether one actually does pick them up" (Schellenberg 2008, 65), it would seem much easier for dual representationalism to hold on to dual variability. There are a number of different proposals as to what the relevant perspectival properties exactly are. By way of example, I shall look at two of them, Noë's and Schellenberg's. As we shall see, neither account preserves dual variability. The reasons for this are such that they put pressure on all versions of objective dual representationalism, regardless of the choice of perspectival property. Moreover, just as in the subjective case, centering would not seem to help here.

Noë works with relational properties he calls "P-properties". They are relational, but mind-independent in a strong sense: "Indeed, in order to characterize P-properties, there is no need to refer to sensations or feelings. P-properties are objective in the sense that they are determinate and that they do not depend on sensations or feelings" (Noë 2004, 83). What are they, then? "P-properties are, in effect, relations between objects and their environment", Noë explains (Noë 2004, 83). P-shapes, for instance, are determined by an object's shape and its relation to the location of a (possible) perceiver. More precisely, P-shapes and P-sizes are occlusion shapes and sizes: "[t]he P-shape is the shape of the patch needed to occlude the object on a plane perpendicular to the line of sight" (Noë 2004, 83). And analogously for P-size: "The P-size of the trees is . . . identical to the size of a patch we can imagine drawn on the occlusion plane" (ibid.).²⁰ Noë also explicitly identifies P-properties with *looks*: "They are *looks* of things, their visual appearances" (Noë 2004, 84).²¹

So, for Noë, looks are objective relational properties of the objects of experience—their occlusion shapes and sizes—and they are what we first and foremost experience: "We experience the world by experiencing how it looks" (Noë 2004, 85). How?

²⁰ There is a rather obvious problem here: P-sizes are supposed to be occlusion sizes. But for any object, angle and distance, there clearly are infinitely many occlusion planes and, thus, occlusion sizes. Noë realizes that this is a problem:

Because there are an infinite number of occlusion planes, one can only speak of *the* perspectival size of an object if one can specify a single occlusion plane. . . . However there is a single apparent size of an object—namely, the unique way that an object looks with respect to size from a particular position. This is secured by phenomenology. Given this, there must be a plane (or perhaps a class of planes) on whose surface an occluding patch would correspond to the P-size of the objects (Noë 2004, 84).

But of course the job of fixing *the* P-size cannot be left to phenomenology. That would immediately ruin the very idea of P-properties as objective and mind-independent. In the quoted passage, Noë only restates the problem. As far as I can see, he does not provide any solution to it.

²¹ In Brewer 2010, Bill Brewer also works with a completely non-phenomenological notion of looks, but he does not think (anymore) that experiences have representational content.

The basic idea here is that of what we can call an object's "P-profile". Roughly, it consists of the way the object's looks, i.e. its P-properties, would vary if we moved around it. Perception of P-properties in conjunction with (implicit) knowledge of the P-profiles of things then makes objective properties available in perception, according to Noë's "sensory-motor account":

To see a circular plate from an angle, for example, is to see something with an elliptical P-shape, and it is to understand how that perspectival shape would vary as a function of one's (possible or actual) movements with respect to the perceived object. We see its circularity *in* the fact that it looks elliptical from here. We can do this because we understand, implicitly, that circularity is given in the way *how things look with respect to shape* varies as a result of movement (Noë 2004, 84).

The ultimate perceptual output are experiences whose content "has a dual aspect" (Noë 2004, 164): it makes reference to both objective properties and P-properties. That seems promising if we want to explain dual variability.

But again, there also is the objective-by-perspectival idea. P-properties *are* looks, according to Noë, and we "experience the world by experiencing how it looks". At the same time, Noë insists that "[t]he plate looks to be circular (it really does)" (ibid.). The idea of seeing the one property *in* the other, I take it, is supposed to somehow take care of the seeming equivocation on 'looks' here. But if the representation of P-properties is basic, and the representation of objective properties a function of it (and the understanding of P-profiles), it is hard to see how there could be any room for dual variability in the resulting phenomenology. Identifying P-properties with looks thus threatens to leave the sensory-motor account with only one dimension of phenomenal variation: P-property variation. The account does provide quite a plausible account of the natural ways things look—but it is hard to see how to build dual variability into it.

Couldn't we use differences in P-profiles to account for the relevant Gestalt switches? Intuitively, an oval and a circular object have different P-profiles. So, couldn't the switch to seeing the plate as oval-and-perpendicular be the result of bringing a different P-profile to bear on it? After all, don't we know that if the plate were oval, its look would change in a different way when we move around it? Maybe, but then, the account would not be a form of dual representationalism anymore: it would no longer fully explain the phenomenology of constancy in variation experiences by means of their representational content.²² More importantly, the very need to at all bring an additional factor into the explanation of variation shows that the idea of perceiving one property in another does not dissolve the initial equivocation on 'looks'. If looks are determined by P-properties only in conjunction with something else, then P-properties themselves aren't looks.²³

²² One might try and incorporate representation of P-profiles into the content of the relevant experiences, of course, thus adopting a form of "triple representationalism".

²³ Again, one might instead think of for instance the total shape phenomenology of an experience of an object as complex. Looking circular-at-an-angle would then have a complex phenomenology somehow

The identification of occlusion shapes and sizes with looks is in any case rather implausible. For objects with identical occlusion shapes and sizes can look very different.²⁴ This is particularly clear when you think of a Gestalt switch on one and the same object.²⁵ Of course, shape looks might very well be functions of something like P-shapes and something else, but that is very different from being P-shapes. Moreover, as we noted above, “flattening” the Gestalt of an object is not the same as experiencing its occlusion shape and size. The flattened Gestalt of the plate is that of a rather flat, but otherwise perfectly normal material object, not that of a two-dimensional image of the plate. We can experience the plate as both circular-at-an-angle and as oval-and-perpendicular, but both experiences are experiences in which the plate has a fully gestalted look. That is, both are looks that an object with a certain occlusion shape can have, but neither is identical with that occlusion shape.

These problems might be avoidable if we adopt a version of objective dual representationalism that does not try to identify perspectival properties with looks. By way of example, I shall look at Schellenberg’s proposal (cf. Schellenberg 2007; Schellenberg 2008), as she is particularly clear on distinguishing the way things appear or look from the perspectival properties that according to her are represented by experience. Schellenberg argues that “the way an object is must not just be distinguished from the way it appears and the way it is represented, but also from the way it is *presented* given the situational features” (Schellenberg 2008, 56, *emph. added*), where

the way an object is presented is best understood in terms of external, mind-independent, but situation-dependent properties that the object has given its intrinsic properties and the situational features. For the visual perception of size and shape, the perceiver’s location in relation to the perceived object is the crucial situational feature that determines *how* the object is presented. For the perception of color, the lighting conditions and color context are among the crucial situational features” (Schellenberg 2008, 56f).

According to Schellenberg, experience represents both the objective or “intrinsic” properties things and their situation-dependent properties, and these situation-dependent properties are as objective and “external” (Schellenberg 2008, 60) as intrinsic properties such as shape and size. She does not tell us what, precisely, the situation-dependent properties are, only that they “are (nonconstant) functions of

composed out of more basic phenomenal elements. Again, the worry would be that such a construal generates conflict with phenomenal simplicity. Moreover, in this case the other more basic phenomenal element would *not* correspond to objective circularity, but to a possible P-profile. Now, I can of course imagine what it is like to experience a possible P-profile, but that is clearly not what is going on in switching the experience of the plate from circular-at-an-angle to oval-and-perpendicular. But if it is not something like that, what is the missing phenomenal element supposed to be? (Remember that we are talking *sensory* phenomenology here.)

²⁴ This is stressed in Matthen 2006, 1163f.

²⁵ Similar observations hold for other candidates for being objective perspectival properties such as subtended angles (cf. Tye 1995). As Brian McLaughlin is fond of pointing out, any Müller-Lyer diagram shows that two objects subtending the same angle can look different in length.

the intrinsic properties of the object and the situational features" (Schellenberg 2008, 60).²⁶ There are, of course, any number of such functions (into all sorts of domains), but I take it that Schellenberg's claim is that whatever the situation-dependent properties precisely are, the representation of such properties is all we need to account for the phenomenology of constancy in variation: "If one recognizes situation-dependent properties, no appeal to mind-dependent properties is necessary to explain how it can be that there is a way that objects look that is not accounted for by representing their intrinsic properties" (Schellenberg 2008, 84).²⁷

The question, then, is whether the representation of both objective and situation-dependent properties explains the full extent of the variation in the phenomenology of constancy in variation. To be able to do so, the phenomenal character of experience has to be a function of both the representation of objective properties and the representation of situation-dependent properties. In particular, to allow for dual variability, it must be possible for two experiences representing the same situation-dependent property, but differing in the objective component, to have different phenomenal characters. As far as I can tell, that is not the case on Schellenberg's account. For according to her, which objective property an experience represents is in fact determined by the situation-dependent property represented. For a dual representationalist, that means that the perspectival element is the sole locus of phenomenal variation. Again, dual variability is left unaccounted for.

Moreover, as we already saw, there are reasons—for the dual representationalist, at least—to think along these lines. These reasons are phenomenological. Even though mostly concerned with avoiding contradictory contents here, their influence might be visible in Schellenberg's description of experiencing two trees of the same size but at different distances from the subject: "The two trees do not look to be both the same and different in size. They look to be the same size *due to the fact that the closer tree is presented as larger than the tree that is further away*", (Schellenberg 2008, 67, *emph. added*). This, I take it, is another version of the objective-by-perspectival idea. The experience represents $tree_1$ as having the same size as $tree_2$ because it represents $tree_1$ as being perspectivally larger than $tree_2$. The way $tree_1$ looks in that experience thus is wholly determined by (the veridical representation of) its situation-dependent size.

Why is the objective-by-perspectival idea so powerful? I don't want to speculate in what actually motivates people here, but I think there is a pretty strong reason for this: *phenomenal simplicity*. The size look of $tree_1$ is not phenomenally complex in the way

²⁶ And that, *pace* Noë, "[t]here is no reason to think of the distinction between the ways objects are presented given one's location and the way they are independently of one's location in terms of a distinction between two-dimensional and three-dimensional spatial properties" (Schellenberg 2007, 608).

²⁷ Whatever they are, Schellenberg is mostly concerned with *how* situation-dependent properties are *represented* in experience. She argues that other proposals, such as Harman's or Tye's, overintellectualize experiential contents by, for instance, construing experience as representing situation-dependent properties *as* situation-dependent properties (cf. Schellenberg 2008, 67ff). According to Schellenberg, a relational property might well "appear to be monadic and nonetheless reveal itself to be relational on reflection" (Schellenberg 2008, 68).

one would expect given that this look is supposed to be a function of the representation of two different, independent kinds of properties. If an experience represents two different, independent kinds of properties, such as shape and color, one expects there to be two isolable phenomenal elements corresponding to each property represented. In other words, we expect isolable phenomenal elements to correspond to represented properties in a certain way. If represented properties can vary independently, we expect there to be phenomenal elements that can vary in the same way.

Of course, nothing prevents us from construing accounts on which the representation of two kinds of properties varies independently, but this independence is not phenomenally realized in the way just described. Why not construe the variation of one kind of phenomenal element as the result of the independent variation of two kinds of properties represented? Phenomenal variation would still be *determined* by representational content, after all. Nevertheless, the *explanation* of the resulting phenomenal character would in an important sense be incomplete. What remains unexplained is precisely the phenomenal simplicity of the resulting aspect of phenomenal character. Why does the representation of objective and perspectival shape, for instance, result in a simple aspect of phenomenal character, while the representation of shape and color results in a more complex phenomenology? It is this question that we get an answer to if we adopt the idea that the representation of one kind of property determines both phenomenal character and which property of the other kind is represented. Then, we can experience the determined property by means of, or in, the determining property. And if the relevant determination relations are such that the determination of phenomenal character is one-one while that of the second represented property is many-one, we do get an explanation of at least an important part of the phenomenology of constancy in variation. What we get is (DV₁), i.e. an explanation of how the plate for instance can look constantly circular in a wide variety of phenomenally different experiences. But we do not get an explanation of *dual* variability as we do not get (DV₂).

There is no reason to think that centering will be of any particular help in resolving the conflict between dual variability and phenomenal simplicity. Whether we construe objective dual representationalism in classical terms, i.e. in terms of different properties, or in terms of boring and interesting centering features, phenomenal simplicity will push us in the direction of construing only one element of the content as phenomenally real and the other as determined by the first, thus pushing dual variability out of the picture.²⁸

²⁸ As a matter of fact, this is not exactly what happens in Brogaard's case. She does not show any inclination to adopt the objective-by-perspectival idea. According to the view she suggests, the experience of the plate represents it as both what she calls "uncentered-circular" and "centered-oval". Working on the assumption of strong representationalism, Brogaard tells us that this gets the plate's looks just right: "it veridically looks to me to be circular-shaped and it veridically looks to me to be oval-shaped" (Brogaard 2010, 389). This does, indeed, suggest that she considers the total shape look of the plate as, somehow, composed out of these two elements. There is, thus, no explanation of phenomenal simplicity or unity.

4. The Phenomenology of Centered Contents

The upshot of the preceding section was that when it comes to the explanation of dual variability, centered dual representationalism is subject to exactly the same worries and opposing pressures as its classical cousins. This should not be surprising, as the perspectival components of the centered contents basically just are relativized versions of the very perspectival properties the classical dual representationalist works with. Nevertheless, according to Brogaard, centered dual representationalism does have some advantages over classical versions, and these advantages are phenomenological in nature. This is the claim that I am going to investigate in this section.

Brogaard relies on two kinds of phenomenological observations. The first concerns the subject of certain experiences, or rather what we might call its “phenomenal absence” or “silence”:²⁹

Nevertheless, Brogaard relinquishes a significant part of the variability that this promises—not to phenomenal simplicity, but to certain considerations of *phenomenal similarity*. In a footnote, she considers what to say about the phenomenal character of an experience like that of the plate at an angle as compared to that of an experience of something oval also seen at angle (cf. Brogaard 2010, 389, fn. 20). More precisely, she considers the comparison with a case where “[t]he second will look uncentered-oval but not centered-oval”. Take platter and plate, again. The case Brogaard has in mind must be one where the platter’s occlusion shape is *circular* (as it will be at some angle if you tilt it along its short axis), and you see it as oval-at-an-angle. She then considers the objection, raised by a referee, that her view would predict that these two experiences have nothing in common, phenomenologically. This can be avoided, she suggests, by hypothesizing “that uncentered ovalness and centered ovalness are phenomenally indistinguishable” (ibid.). The idea seems to be that it doesn’t matter whether the centering feature is boring or interesting, objective or perspectival—as long as it is a form of, say, ovalness it predicts the same phenomenal component as being present in an experience. Consequently, something that looks uncentered-circular and centered-oval, like the plate, would look *just the same* as something that looks uncentered-oval and centered-circular, as the platter tilted along its short axis might. (As the experiences in which platter and plate look these ways remain experiences with different contents, however, I do not see how this hypothesis is supposed to be compatible with strong representationalism.) So, on this account, we (presumably) do get a difference between looking circular-at-an-angle and looking oval-and-perpendicular—but not between looking circular-at-an-angle and the very particular case of looking oval-at-an-angle where the object has a circular occlusion shape. I do not really understand the pressure towards reducing variability here. As remarked above (fn. 10), I can see that one might desire an explanation of the phenomenal similarity between experiences that can be described as the same in perspectival aspect, for instance, experiences of objects that have the same occlusion shape. But, as Chalmers observes, it is far less clear that these similarities need to be explained by means of content (cf. Chalmers 2006, 88), and if they are, it seems to me, they need to be explained in a way that does not make the relevant experiences phenomenally identical. In the case Brogaard considers, however, the objects do not share occlusion shapes. The similarity thus is, it seems to me, less close than in cases where objects do share occlusion shapes. Thus, it would be even more important not to collapse the phenomenal character of the relevant experiences.

Without the hypothesis that centered and uncentered *F*-ness look the same, we might then have an example of an account that predicts the full range of variation in the constancy in variation phenomena. However, this is not a feature that has anything to do with the centered nature of the content the account works with. Classical objective dual representationalism could easily be modified to have the same feature. What would be lacking, again, is an explanation of phenomenal simplicity.

²⁹ The terminology of phenomenology silence is borrowed from Speaks 2009, 557. However, he uses it more narrowly to make a distinction between elements of experience content—where experience contents are construed as structured Russellian propositions.

I do not normally experience one tree as being further away than another relative to me or a blue ball as being two feet away from me, to the right of me. I just experience one tree being further away than the other or a blue ball being two feet away, to the right. The content of visual experience leaves the perceiver out of the picture, so to speak (Brogaard 2010, 387).

It is not completely clear to me precisely what phenomenological datum Brogaard is after here.³⁰ To be sure, phenomenally speaking, the subject of an experience as of an avenue of poplars is not presented as just another of the experience's objects, along and on a par with the trees. But the subject isn't completely absent either, not "out of the picture" in quite the same sense in which all things outside your visual reach are out of the picture. There is a sense in which the subject is phenomenally present in an experience precisely in the very egocentric nature of perceptual space, it seems to me. Maybe it is simply this particular kind of presence that is supposed to be better explained by working with centered experience contents.

The second kind of phenomenological observation Brogaard uses in support of centered contents concerns the relational nature of the properties classical dual-representationalism uses to account for constancy in variation. Just like the subject, Brogaard submits, the relational nature of these properties does not have to be phenomenally present. More precisely, she seems to think that these properties often appear to be, or are phenomenally presented as, *non-relational*. Let's call this the "phenomenal silence of relationality". Again, it is not completely clear to me just what the phenomenological datum is supposed to be here: is the claim that, phenomenologically speaking, there is no difference in how, for instance, the (non-relational) circularity and the (relational) ovalness of the plate are presented?³¹ But whatever the datum precisely is, it is quite natural to feel that if experiences do represent relational properties, these properties do not wear their relational nature on their phenomenal sleeves. The question is how working with centered contents is supposed to help with either of the observed phenomenal absences or silences.

³⁰ On the assumption of *strong* representationalism in combination with either classical possible worlds contents or Russellian contents, including the subject in the experiential content has the consequence that no two subjects can have experiences with the same phenomenal character. Many people find that counterintuitive. Cf. a.o. Egan 2006a, Schroeder and Caplan 2007, Tye 2009, Speaks 2009. Brogaard discusses this "duplication problem" as another problem best solved by centering contents. That different subjects can have experiences with the same phenomenal character, plausible as it intuitively may be, is *not* a phenomenological claim, however.

³¹ This would explain the hypothesis, discussed in fn. 28 above, that centered and uncentered ovalness are phenomenally indistinguishable. But again, this hypothesis seems false to me—it matters a great deal to the phenomenal character of an experience whether, in Brogaard's terms, the represented ovalness is centered or uncentered. The plate at an angle looks very different from the platter at an angle where its occlusion shape is circular. This does not mean that anything *looks relational* here, of course. But, just as in case of the subject, one might wonder whether there isn't some sort of phenomenal reality to relationality, too—at least as soon as the subject moves around in relation to the experienced object. Moreover, even if there were no phenomenal difference in the presentation of relational and non-relational properties whatsoever, the question would be why this would indicate that they are all presented as non-relational rather than as relational?

Regarding the absence of the subject, Brogaard explains: "My point here is simply that my experience as of a ball being to the right need not *phenomenally* represent *me*. It merely needs to represent a ball over there or to the right" (Brogaard 2010, 388). As she points out, that does *not* mean that the veridicality of the experience content does not depend on the subject. Quite the contrary: if the content is centered, the experience is veridical precisely when there is a ball to the right of the subject.³² And with respect to the absence of relationality, Brogaard explains the idea as follows: "One advantage of this approach . . . is that it attributes non-relational properties in cases where non-relational properties seem to be the right thing to attribute" (Brogaard 2010, 389). Again, this does not mean that the instantiation of, for instance, centered ovalness does not depend on the location of the subject—it does—but this dependence, Brogaard claims, need not be reflected in the phenomenal character of the relevant experience.³³

The claim thus is that centered experience contents allow certain parameters that their veridicality depends on to be phenomenally silent. The question then is what relativizing experience contents to such "veridicality parameters" has to do with phenomenology? Why would centering experience content upon a veridicality parameter such as the subject—as opposed to construing the content as a classical proposition with the corresponding veridicality conditions—predict or explain that parameter's phenomenal silence?

Strong representationalism might be a motive here, but it would be a shallow one. Of course, we can stick to (the letter of) strong representationalism by simply refusing to call anything lacking phenomenal presence "experience content". But we might (at least) equally well preserve the traditional, truth-conditional understanding of content by giving up on strong representationalism and making a distinction between those elements of experience content (or parameters determining veridicality conditions) that are phenomenally silent and those that are not (cf. Speaks 2009). As long as we do

³² More precisely, this holds for contents centered upon the subject, but of course this is the kind of centering plausibly at issue here.

³³ As noted above (fn. 27), Schellenberg is concerned with a similar issue; she claims that it is "cognitively too demanding" (Schellenberg 2008, 69) to construe experience as representing either situational features or situation-dependent properties *as such*. And she argues that perception nevertheless can represent situation-dependent properties because "a property can *appear to be monadic* and nonetheless reveal itself to be relational on reflection. Although situation-dependent properties are relational properties insofar as they are a function of intrinsic properties and situational features, they need not be *represented as* relational properties. Moreover the fact that they are relational properties need not reveal itself in the phenomenology of perception" (Schellenberg 2008, 68, *emph. added*). (Shoemaker makes similar claims regarding "appearance properties" (Shoemaker 1994, 28).) But I suspect that this has more to do with the *medium of representation* than the content. Of course, a concept can somehow "appear" to be simple, or monadic, when it in fact is not. Just like a predicate can look like a one-place predicate on the surface, when in fact it has to be analysed as a two-place predicate. But we must be careful not to confuse this kind of appearance with a difference in content. If a concept that seems to be non-relational turns out, on reflection, to be relational, this is the result of a successful analysis, and analysis does *not* change content. Therefore, it seems to me that the plausibility that these claims undoubtedly have depends on hidden assumptions about the medium of representation. That need not be a bad thing, but it might mean that phenomenal character is at least partly explained by the perceptual medium of representation, and not just by experiential content.

not bring in further considerations here, it seems clear that a claim as controversial as representationalism, just by itself, cannot possibly be a strong enough motivation for switching to a relativized notion of content. If we had an argument to convince us of the phenomenological significance of such a switch, that might very well provide at least some reason for the switch. But as long as neither side provides us with an explanation of *why* certain veridicality parameters/elements of content are phenomenally silent while others are not, we have no phenomenological reason to prefer one such view over the other.³⁴ In particular, as long as there is no plausible argument to the effect that centering has phenomenological consequences, the move to centered contents lacks phenomenological motivation. Without any such argument, the phenomenology of absence seems to be silent on the question of the nature of experience content.³⁵

5. Constancy in Variation and Phenomenal Intentionalism

The considerations so far do not support the conclusion that the phenomenology of constancy in variation provides any independent reasons to favour centered experience contents. But we have not found any decisive obstacle to construing experience as having centered contents, either. Compared with classical dual representationalism, centered dual representationalism is neither better nor worse off when it comes to explaining the constancy in variation phenomena. Both are subject to the very same phenomenological pressures and trade-offs. Nevertheless, we might ask whether we cannot do better. Aren't there better ways of explaining these phenomena by means of experience content? In particular, can't we get an explanation of the full range of variation without sacrificing phenomenal simplicity? In this last section, I shall have at least a quick look at constancy in variation from the perspective of my own, non-standard version of intentionalism. And I shall argue that on this account, we do get

³⁴ Speaks hypothesizes that phenomenology-silence is a matter of externalism: those elements of experience content that are externalistically determined are phenomenology silent, while internalistically determined elements are not (Speaks 2009, 566f). But why would matters of content determination predict phenomenology? Prima facie, this is no more plausible than claiming that using centered contents predicts phenomenology, it seems to me.

³⁵ But doesn't silencing presuppose structured content in order to have the required elements to pin silence onto? I don't think so. At least, it would seem that something very similar to silencing can be used independently of any structured propositions framework: We could think of phenomenology-silence on the model of *unarticulated constituents* (cf. Perry 1993). To do this, we would need a conception of *articulation* that can be applied to experience, a conception, that is, that would consider not the content of experience, but the *medium in which it is represented*. As many have noted, the experiential medium of representation seems to be significantly different from that of (most other) belief in a variety of ways. One could thus argue that for instance subjects, while involved in the truth-conditions of experience, are not "explicitly" represented, but rather unarticulated constituents of experience content. One could further argue that only "articulated content" determines phenomenology. Unarticulated content then could be construed as phenomenally silent. I think this is something that ought to be explored, but this is not the place to do so.

both the full extent of dual variability and an intuitive explanation of phenomenal simplicity.

According to phenomenal intentionalism, visual experiences have what I have called “phenomenal” or “looks-contents”: contents of types like *x looks F* or *it looks as if p*. Since we are exclusively concerned with properties here, I shall waive all concerns about whether experience contents are, or can ever be, singular and assume, for simplicity’s sake, that the contents we are interested in are all of the type *o looks F*. The first thing to note, then, is that on phenomenal intentionalism, it is perfectly possible for an object to both look *F* and not-*F* without that resulting in contradictory experience contents. Experiences like that of the waterfall illusion thus do not have to be understood as having contradictory contents.

Prima facie, adopting a dual representationalist version of phenomenal intentionalism might thus look like a good idea. But just avoiding contradiction is not enough when it comes to constancy in variation. It won’t do to construe an experience like that of the plate at an angle as one with the content *the plate looks circular and oval*. For while *illusory* experiences might sometimes have contents like these, there is nothing illusory about this experience (and most others like it). The plate does not look oval *in the sense in which an object looks oval in a veridical experience of something oval*. It does not have either an oval-and-perpendicular or any of the oval-at-an-angle looks. If we really want to capture the full range of variation here, we cannot just work with a conjunction of two shape-look properties of the same kind.³⁶

One might think that the crucial point here is that the plate does not look oval *in the same sense* in which it looks circular. This would suggest that the sense of ‘looks’ changes between the two ascriptions: ‘looks’, we might think, should be construed as having one sense when reporting the constant looks of things, and another when reporting the perspectival looks of things.³⁷ And possibly, one could develop phenomenal intentionalism along these lines. One might, that is, suggest that experience represents both what I have called phenomenal properties and also looks-properties of some other kind. This would result in a more sophisticated form of phenomenal dual representationalism. Such dual representationalism might do just as well as other forms of dual representationalism at accounting for constancy in variation but it is hard to see that it would do better. In particular, it is hard to see that it wouldn’t be torn between precisely the same pressures: its options for explaining phenomenal simplicity

³⁶ And again, the same would hold if the phenomenal intentionalist would construe phenomenal properties as centering features. This might seem tempting on the—to my mind plausible—assumption that, on further analysis, phenomenal properties will turn out to be somewhat similar to Shoemakerian appearance properties, i.e. involve either dispositions to cause, or the actual causing of, sensations of certain phenomenal types in experiential subjects. (For more on this with respect to colour, and a significant difference between my conception of phenomenal properties and Shoemakerian appearance properties, see Glüer 2012a.) But if there are reasons for construing them as centering features, they apply to all phenomenal properties equally: if construed as centering features, they would all be interesting, so centering, by itself, would not be of any help in generating more variability.

³⁷ Cf. Sainsbury 2007 for a suggestion along these lines.

would seem precisely the same as for any other form of dual representationalism. It would thus not make it any easier to avoid a trade-off between simplicity and dual variability.

Therefore, I shall rather push the claim that indeed, the plate can (truly) be described both as looking oval and as looking circular when reporting a particular experience of it—even though ‘looks’ is not ambiguous here. This is first and foremost a claim about the *language* we use to report experience. What I think we need to realize is that many of these looks-reports—even when clearly intended to be “phenomenal”—are not at all such that we can directly “read off” the experience content from the report. This is not only to claim, as I have done before, that phenomenal ‘looks’ is not a propositional attitude operator.³⁸ It isn’t. But my point now is that even on the assumption that experience contents are phenomenal looks-contents, the relation between the sentence used to report the experience and the experience content is quite complicated. The account of the constancy in variation phenomena provided by phenomenal intentionalism, on the other hand, is really rather simple.

The first thing to notice is that, even when used “phenomenally” or “non-comparatively”, experiential looks-reports are *not* such that the following principle holds for them:

(LFF) If something veridically looks *F*, then it is *F*.³⁹

This point is made in Byrne 2009 (cf. also Glüer 2014). Consider his example of the naked mole rats. Naked mole rats are very odd looking little animals living their lives underground.⁴⁰ They are pretty much bald, rather pink skinned, and very wrinkled. In this sense, naked mole rats *look old*. We can specify this way of looking by means of a comparative use of ‘looks’, i.e. as a way of looking the mole rats share with certain other creatures when these other creatures are old. In certain situations, there might be no other way to communicate the way the mole rats look. But, Byrne argues, we can also use ‘looks old’ non-comparatively—we can use it to *refer* to this particular way of looking old more directly. Thus, the sentence

(1) The mole rat looks old,

can be used comparatively. But in a suitable context, it *can* also be used non-comparatively, i.e. construed as referring directly to the intended way in which the mole rat looks old. There are, of course, many ways of looking old, but in a suitable context, one of them will be salient. When looking at a naked mole rat, for instance, it is quite obvious which way that is. Call this look “Ratty”. Thus, when used phenomenally,

³⁸ See Glüer 2014 for more on this.

³⁹ Something very similar is endorsed in Brogaard 2010, 379.

⁴⁰ They are really quite amazing creatures: they live in elaborate tunnel systems underneath the outer reaches of the Sahara, forming colonies organized very much like those of ants. And they are amazingly skilled at walking backwards, which allows them to keep their tunnels slim.

'looks old' will refer to the contextually salient way of looking old. In a suitable mole rat context, 'looks old' will refer to Ratty.

Byrne's point then is that the mole rat can have Ratty without having to be old. And in fact all mole rats do have Ratty regardless of their age. Even the tiniest baby mole rat looks old.⁴¹ A mole rat experience thus can be truly reported by (1) regardless of whether the mole rat in question is old or not. Used phenomenally, such a sentence ascribes a certain look to the mole rat, not an age. And this generalizes: phenomenal 'looks *F*' can in general be used to ascribe ways of looking to objects, and to report experiences in which objects look these ways, without this entailing that the reported experience is veridical only if its object is *F*.

A second, related observation is the following: There are many ways of ascribing the same look to an object. The way the mole rat looks can also be described by saying that it looks bald, pink, and wrinkled. So, in a suitable mole rat context, you can ascribe Ratty to the mole rat by making phenomenal use of (1), but you can equally well make phenomenal use of a sentence like (2) to do so:

- (2) The mole rat looks bald, pink, and wrinkled.

In a suitable mole rat context, both sentences can be used phenomenally to ascribe the very same look to the very same mole rat. In such a context, they can also be used to report the very same experience with the very same content. But which content is that?

As I said, I do not think that the answer to this question is at all straightforward—not even on phenomenal intentionalism. Initially, phenomenal intentionalism seems to offer a simple and elegant formula for getting from phenomenal looks-reports to experience contents: A phenomenal looks-*F* report reports an experience with the content *that o* (the object of the experience) *looks F*. Complications arise once we apply this idea to constancy in variation. The mole rat observations go some way in helping the phenomenal intentionalist deal with these complications. But not all the way.

One of the initial observations in this chapter was that what I later called the natural way your plate looked at your friend's lunch table is most naturally described by saying that it looks circular. At the same time, there is a sense in which that very look can also be described as oval; it's one of the many different ways of looking circular-at-an-angle. Now, consider a phenomenal use of (3) to report an experience of looking at your plate in our original lunch-at-the-country-house context:

⁴¹ Byrne uses this point to argue that the non-comparative use of looks does *not* "index" experience content. For experience content to be looks-indexed (the expression is from Travis 2004), looks would have to determine experience content such that if you have an experience in which *o* looks *F* then you have an experience with a certain content. On standard intentionalism, that would be the content *o is F*. And then, of course, the experience would only be veridical if *o* was indeed *F*. The experience reported by means of (1), used non-comparatively, thus cannot have the content that the mole rat is old—because it can be veridical even if the mole rat is a baby. According to Byrne, the looks-report reports an experience with a different content, for instance the content that the mole rat is pink, bald, and wrinkled. Cf. Byrne 2009, 443.

(3) That looks circular.

Assume that this report is true: Your experience is one in which the plate has a natural, circular-at-an-angle look. But there are many different ways of looking circular-at-an-angle. And you do not experience the plate as looking determinably circular-at-an-angle—you experience it as having a (maximally) determinate circular-at-an-angle look. Correspondingly, phenomenal intentionalism can construe the experience as ascribing a (maximally) determinate looks-property to the plate. Precisely how determinate this looks-property is is determined by the experiential medium of representation—which, after all, is a medium rather (in)famous for the fineness of grain it allows representations to have. When it comes to looking circular-at-an-angle, the looks-property ascribed by an experience is at least as determinate as being the way a circular object of a certain size looks at a certain distance and angle. Phenomenal intentionalism thus can rather easily account for the first aspect of variation in constancy in variation.

What might seem to get more complicated is the relation between phenomenal looks *reports* and the contents of the reported experiences. It might for instance seem as if such reports could never be as determinate as the experience contents themselves. But I don't think that is true. As we already saw with respect to the mole rat reports, phenomenal 'looks *F*' has a hidden context parameter: the way of looking it refers to is the contextually salient way of looking *F*. Using a sentence like (3) to make a very determinate experience report thus requires a very determinate way of looking circular to be salient. And that might well be possible. But an experience report does not have to be so specific. Such reports can be made for various purposes, and often, all that is meant to be communicated is that an object has a look of a certain determinable kind.

The next question is what we are to make of the fact that there is a sense—although in many situations a less natural one—in which the plate's look can also be described as oval. You could for instance do so by using a sentence like (4) in the lunch-at-the-country-house context:

(4) That looks oval.

What is important here is that we are *not* (yet) talking about the plate's painter's look. We are not using (4) to ascribe looking oval-and-perpendicular to the plate. Rather, we are talking about *the very same look* that more naturally is described as circular. We are just *describing* it differently.

Compare this to the mole rat experience: In a mole rat context, its particular kind of old look—Ratty—can be ascribed to a mole rat by means of either (1) or (2). And either sentence can be used to report an experience in which the mole rats looks that way. In such a context, both the designated look, and (the content of) the reported experience would, however, be the very same regardless of which sentence you use. On phenomenal intentionalism, this carries straightforwardly over to the natural look

of your plate in the lunch-at-the-country-house context. The sense in which the plate looks oval is precisely the sense in which circular things seen at an angle look circular-*at-an-angle*. The more oval a circular thing looks, the sharper is the angle at which it is seen. And precisely which way of looking is ascribed to the plate by means of an utterance of (4) is, again, a matter of what's salient in the context. Thus, in a given context, it is perfectly possible to use either (3) or (4) to ascribe one and the same (more or less determinate) look to the plate. And even though in most contexts, it will be more natural to use (3) for reporting an experience of the plate, you can use either (3) or (4) to do so. Either way, you are reporting on *the very same experience—with the very same content*.⁴²

Phenomenal intentionalism thus can explain the first aspect of the variation in the constancy in variation phenomena by means of the experiential representation of maximally determinate looks-properties. This explanation does not require the representation of two different kinds of properties; the representation of phenomenal properties is quite sufficient. But experiences representing such properties can be reported on by means of different "descriptions"; in the right context, the same look can be designated by means of *different* phenomenally looks-modified predicates.

The look you experience an object as having in a particular situation is partly, but not fully, determined by the object's shape and its spatial relations to the experiencing subject. It is therefore maybe not that surprising that the look can be described, or referred to, both by using predicates denoting the object's objective shape in combination with a phenomenal looks-modifier, but also by using (phenomenally looks-modified) predicates denoting its occlusion shape. Describing constancy in variation experiences in terms of awareness of objective and perspectival properties is, however, misleading. According to phenomenal intentionalism, what we are experientially aware of when the plate has a particular circular-at-an-angle look is precisely the corresponding phenomenal property. Not only the first aspect of the variation of constancy in variation, but also the *phenomenal simplicity or unity* of gestalted looks thus comes very naturally to phenomenal intentionalism.

But as I just said, the look you experience an object as having in a particular situation is *not fully* determined by the object's shape and its spatial relations to you. Nor is it fully determined by those factors together with your visual system. You can perform a Gestalt switch on the plate and make it look oval-and-perpendicular instead of circular-at-an-angle. One might thus worry that—just like dual representationalism—phenomenal intentionalism ultimately cannot account for dual variability.

But this worry would be unfounded. In fact, phenomenal intentionalism can as easily account for the second aspect of variation in constancy in variation as for the

⁴² In most contexts, we are more interested in the objective shape of what we see than in its spatial orientation in relation to us. Thus our tendency to report a circular-at-an-angle look by means of (3). But on occasion we might very well be interested in the angle at which we see it. On such an occasion, it might be perfectly natural to use some variant of (4) to report a circular-at-an-angle look.

first, and in the same way. According to phenomenal intentionalism, an experience in which the plate has its painter’s look ascribes a phenomenal property to it; just like an experience in which it has its natural look. And since the look is different, so is the property ascribed by the experience. The phenomenal difference thus corresponds to a difference in experientially represented property.⁴³

What does get even more complicated by dual variability is the relation between experience (content) and experience report. As I argued so far, in a suitable context both (3) and (4) can be used to report an experience in which the plate looks circular-at-an-angle. But surely, (4) can also be used to report an experience in which the plate has its painter’s look. And the same holds for (3). (3) can be used to report an object’s painter’s look— though *not* that of the plate seen at an angle (other than 90 degrees). But (3) can be used to report the painter’s look of an oval object seen at an angle.⁴⁴ And this generalizes across the constancy in variation phenomenology: Phenomenal ‘looks *F*’ thus not only has a hidden context parameter, it turns out to be ambiguous after all. But the ambiguity is not due to the first aspect of variation in constancy in variation. It is due to its second aspect, to the possibility of switching the Gestalt we experience the things around us as having.⁴⁵

According to phenomenal intentionalism, constancy in variation experiences do not represent two different kinds of property. They represent properties of the phenomenal kind only. This does not mean, however, that such experiences do not contain information about both the objective and the perspectival properties of these things. Experiences represent the ways things look. And typically, things that naturally look circular-at-an-angle are circular things seen at an angle. Thus, if experiences represent the phenomenal looks of things, they represent properties the observation of which provides evidence about both the objective properties of their bearers and the circumstances under which they are encountered. But experience itself does not represent these properties.

⁴³ Experiencing the plate as oval-and-perpendicular when it in fact is circular and at an angle should count as illusory. On phenomenal intentionalism, illusory experiences typically have true contents. They can nevertheless be understood as illusory in the sense of being misleading—where an experience is misleading iff it provides its subject with *prima facie* reasons for forming a false perceptual belief. In the case of an illusory painter’s look experience, the *prima facie* reason it provides for believing that there is an extremely flat object perpendicular to your line of sight is typically defeated by the Gestalt switch by means of which you have brought about that experience.

⁴⁴ Imagine an oval object tilted not along its long axis, but along its short axis, such that its occlusion shape is circular.

⁴⁵ This possibility has its origin in the visual system’s facing the so-called “inverse problem”. The visual system does, so to speak, deliver an hypothesis about the problem’s solution to us, but fortunately, it also allows us to experience an alternative solution. Try to imagine what the history of painting would have been if it didn’t.

The switch from a natural Gestalt to a less natural one is not always a switch to a painter’s look. Sometimes, rather flat objects in fact are perpendicular to a subject’s line of sight, and then, their natural look will be of the *F*-and-perpendicular kind. Nevertheless, Gestalt switches can be performed on them even under such circumstances. Thus, if the plate is perpendicular to your line of sight, you’ll naturally see it as circular-and-perpendicular, but you can nevertheless also experience it as oval-at-an-angle (again, imagine an oval tilted not along its long, but along its short axis until it has a circular occlusion shape).

Thus, it seems to me, phenomenal intentionalism provides quite a nice explanation for both dual variability and phenomenal simplicity. Both come rather naturally to phenomenal intentionalism; if experiences represent phenomenal properties, we only need one kind of property to explain all the variation we in fact find in the phenomenology of constancy in variation. The representational content we construe experiences as having then does not require, or generate the expectation of, any complexity in the phenomenology that we do not in fact find there.⁴⁶ When it comes to accounting for the phenomenology of constancy in variation, it therefore seems to me that phenomenal intentionalism has advantages over at least those forms of dual representationalism that are currently on the market. Not being subject to the warring phenomenological pressures threatening to tear apart dual representationalism, phenomenal intentionalism provides quite natural explanations for the most intriguing aspects of that phenomenology. Constancy in variation thus does not provide any independent argument for construing experience, or the propositional attitudes in general, as having centered contents.

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⁴⁶ What we do not get is an explanation of certain relations of phenomenal similarity in terms of representational content (cf. fn. 10). Why is an experience of an object looking circular-at-an-angle similar to one in which the object looks oval-and-perpendicular? These similarities might well be best explained in terms of the medium of representation used in perceptual experience.

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