NEW PROBLEMS OF PHILOSOPHY

ROUTLEDGE

PERCEPTION

ADAM PAUTZ

CONTENTS

Preface and acknowledgments x

Introduction: What is the puzzle of perception? **1**
1 The character question 2
2 Why the character question is hard: the external-internal puzzle 6
3 Why the character question is important: the significance of experience 12
4 The organization of this book 14

1 The sense datum view: Experiencing virtual reality **17**
1.1 Naïve realism: the window shade model 18
1.2 The sense datum view: the brain as a virtual reality device 21
1.3 The act-object assumption 27
1.4 The argument from hallucination for the sense datum view over naïve realism 30
1.5 The argument from illusionism about sensible properties for the sense datum view over naïve realism 36
1.6 The sense datum view neatly solves the external-internal puzzle 42
1.7 The *percipi* problem about pain 44
1.8 Can the sense datum view explain our access to the external world? 45
1.9 Do simplicity considerations undermine the sense datum view? 48
1.10 Where are sense data? 50
1.11 Hard cases: perceptual imprecision and incompleteness 52
Summary 56
Further Reading 56

2 The internal physical state view: Experiences as inner modifications 59
2.1 What is the internal physical state view? 60
2.2 From experiential internalism to the internal physical state view 65
2.3 Can the internal physical state view accommodate the transparency observation? 68
2.4 The externally directed nature of some experiences 72
2.5 The argument from essential external directedness against the internal physical state view 77
2.6 Could a brain-in-the-void have a favorite shape? 81
2.7 Papineau's reply: rejecting essential external directedness 84
Summary 90
Further Reading 91

3 The representational view: Experiencing as representing 93
3.1 What is the representational view? 94
3.2 The argument for the representational view: an inference to the best explanation 102
3.3 Can the representational view explain all sensory-perceptual experiences? 110
3.4 How rich is the content of experience? 116
3.5 The question of skepticism and the dogmatist answer 120
3.6 Does the representational view explain perceptual presence? 126
3.7 Is the representational view intrinsically implausible? 128
3.8 Can the representational view explain the laws of appearance? 130
Summary 135
Further Reading 136

4 How does experience represent the world? 139
4.1 Two questions for representationalists 140
4.2 Response-independent representationalism 142
4.3 Armchair arguments against response-independent representationalism? 148
4.4 The problem of internal dependence about sensible properties 151
4.5 Other problems about sensible properties 161
4.6 Response-dependent representationalism 164
4.7 Two problems with response-dependent representationalism 167
4.8 Internalist-nonreductive representationalism: the basic idea 170
4.9 Must internalist representationalists treat color as illusory? 175
4.10 Is internalist representationalism plausible for spatial experience? 178
4.11 Is internalist representationalism mysterious? 182
Summary 185
Further Reading 185

5 The return to naïve realism: Experience as openness to the world 188
5.1 A basic form of contemporary naïve realism 190
5.2 How naïve realism differs from representationalism 195
5.3 Naïve realism *v* representationalism: intrinsic plausibility 198
5.4 Naïve realism *v* representationalism: explanatory role 202

5.5 Representationalism *v* naïve realism: hallucination and illusion 207
5.6 Representationalism *v* naïve realism: two arguments from science 215
5.7 Can internalist-selectionist naïve realism answer the arguments from science? 222
5.8 Can ways-based naïve realism answer the arguments from science? 226
Summary 232
Further Reading 232

6 Conclusion 235
6.1 Explaining essential external directedness at the cost of denying internal dependence 236
6.2 Explaining internal dependence at the cost of denying essential external directedness 237
6.3 Accepting both essential external directedness and internal dependence 238
Further Reading 240

Glossary 241
References 244
Index 260

3

THE REPRESENTATIONAL VIEW:
EXPERIENCING AS REPRESENTING

One can sense the condition that something colored red is surrounded by something blue quite independently of whether there actually is something colored red surrounded by something blue.

—George Bealer (1982)

Nothing needs to have the properties we experience. There needn't be anything orange or pumpkin-shaped in (or outside) the head at the time the experience is occurring in order for us to have an experience as of an orange pumpkin.

—Fred Dretske (2003)

Imagine that you see a pumpkin. The representational view holds that for you to have this experience is for you to "experientially represent" that an orange and pumpkin-shaped thing is there. Put differently, for you to have this experience is just for it to "experientially seem" to you that an orange and pumpkin-shaped thing is there. If you should later hallucinate a pumpkin, there needn't exist a spooky non-physical "sense datum" or "picture" of a pumpkin created by your brain for you to experience (as the sense datum view examined in Chapter 1 would have it). It merely seems to you as if there is such a thing; that is, you merely experientially misrepresent that there is such a thing. In general, the phenomenological character of

your experience is not constituted by the intrinsic character of the underlying internal neural state (as the "internal physical state view" examined in Chapter 2 would have it). Rather, it is constituted by how you experientially represent the external world to be, as a result of being in that neural state.

The central puzzle in the philosophy of perception can be summed up in this way: how is experience both essentially externally directed and internally dependent? How can it be that your experience of things as "out there" depends on internal neural processing going on "in here"? The representational view may be able to solve the puzzle. The idea is that experiencing consists in representing qualities in space but in some cases what qualities we experientially represent is due to our own internal processing, rather than to the character of the world itself.

Since the representational view is a very large topic, our discussion of it will be divided into two chapters. In this chapter, we will mostly focus on the basic idea and how it explains the externally directed character of experience. In Chapter 4, we will be more concerned with the question of how it might accommodate internal dependence.

The plan for the present chapter is as follows. In Section 3.1, we will take some time to understand the representational view. In Section 3.2, we will consider an "inference to the best explanation" argument for it. In Sections 3.3–3.7, we will consider several questions and problems faced by representationalists.

3.1 What is the representational view?

To explain the representational view, I will focus on an actual example. People with "Charles Bonnet syndrome" (CBS) have impaired eyesight. However, due to spontaneous internal neural activity, they often have hallucinations that are so vivid and detailed that they cannot tell them apart from real life. In their essay "I See Purple Flowers Everywhere", Mogk and Mogk (2003) include fascinating descriptions of the hallucinations of people with CBS. One of them was Buddy Burmester, who often hallucinated amazingly vivid and detailed purple flowers. He could even draw them. Below is a drawing of one of the unreal flowers proceeding from his brain (Figure 3.1).

Let's imagine that Buddy has a total hallucination. He hallucinates nothing but a flower in empty space, even though in fact he is in a room filled with objects. How to account for Buddy's hallucination?

Representationalists combine two ideas familiar from Chapters 1 and 2. First, essential external directedness: having this experience essentially

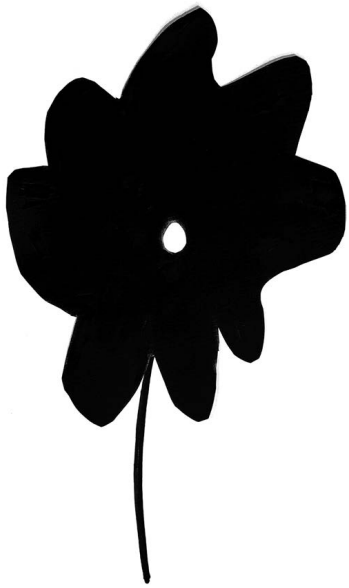

Figure 3.1 A drawing of a flower Buddy Burmester hallucinated.

involves the seeming presence of a purple, flower-shaped object before him. Second, the seems-gambit: though it vividly seems to Buddy that there is a purple, flower-shaped object in empty space, none of it exists. Against the sense datum view, there does not even exist an "image" or "picture" of a flower in a private visual field – it just seems to Buddy that all this exists. In this sense, experience is existence-neutral.

Representationalists go beyond these ideas. On their view, we shouldn't think that Buddy *first* has a hallucinatory experience and *then* this explains why it seems to him that there is a purple and flower-shaped object before him (a "dual component" theory). Rather, Buddy's experience is *nothing but* this seeming-state. There is nothing more to the experience. His experience is real, but the reality of the experience completely consists in something seeming real.

Representationalists have a special terminology: they say that for Buddy to have his experience is just for him to "experientially represent" that there is before him a purple and flower-shaped thing in empty space, as a result of his aberrant neural activity. This is not something he does intentionally; it is involuntary and passive.

The reason why representationalists use the terminology of "representation" is that they hold that experiences are in one respect like "representational" mental states such as beliefs. In particular, they hold

that experiences, like beliefs, are *existence-neutral*. In belief, you can represent the Tooth Fairy, even though there doesn't exist such a thing. Similarly, in Buddy's hallucination, it seems to him that there is a flower in empty space, even though there doesn't exist such a thing.

However, you should not read too much into the terminology of "representation" here. Representationalists do not think that experiences are in every way like beliefs and other mental states in which you represent the world. If you believe in the Tooth Fairy, that doesn't make it seem to you that the Tooth Fairy is right there before you in vivid detail. By contrast, when Buddy hallucinates a flower, it seems to be present *right there* and in vivid detail.

In fact, even though the view is called the "representational" view, it could be described without using the terminology of "representation" at all. Instead of saying that Buddy "experientially represents" that there is a purple and flower-shaped thing before him, we could say that it "experientially seems" to Buddy that there is a purple and flower-shaped thing before him. And we could call it the "seeming theory" instead of the "representational theory".

Now suppose that Buddy's friend "Barry" views a real flower in empty space. The scene looks just like the one that Buddy hallucinates. Then Barry and Buddy "have exactly the type of same experience", even though Barry is seeing and Buddy is hallucinating. Call this maximally-specific experience *the flower-experience*.

Representationalists hold that, quite generally, for a person to have the flower-experience just is for the person to "experientially represent" that there is a purple, flower-shaped thing in empty space. Thus for Barry no less than Buddy, his experience is constituted by his experientially representing such a thing. True, there is a physical flower before his body. But there is a sense in which the physical flower doesn't matter. Even if the flower is annihilated, there might be no change in the nature of Barry's experience as long as he continues to experientially represent that there is a purple, flower-shaped thing in empty space. The only difference between Buddy and Barry is that, while Buddy's representational state occurs "off-line", Barry's representational state is controlled by the impact of an actual flower on his visual system. When Barry has the flower-experience, the way he experientially represents the world to be (the way the world experientially seems to him) happens to coincide with the way the world really is.

Likewise, as you read these words right now, your own present total visual experience is nothing but a super-complex seeming-state in which it seems

to you that there are many items filling your visual field. In principle, if your current neural processing were artificially reproduced, you would be in the same seeming-state, even if there is really nothing at all before you.

The representational view as we have formulated it is not the view that you experience the world by first experiencing a literal "picture" or "representation" generated by the brain. That would be the sense datum view examined in Chapter 1. The whole point of the representational view is to avoid a screen of "sense data" interposed between you and the world. When you believe that there is an evil presence behind you, there is no such thing there (hopefully). Similarly, when Buddy hallucinates a flower, he experientially represents that there is a purple and flower-shaped thing, so that it seems to him that a purple and flower-shaped "sense datum" is present, but no such item is really present. In the normal case, where there is a physical flower in front of Buddy, there is once again no mental image or sense datum "between" Buddy and the physical flower. All that is going on is that he experientially represents that a flower-shaped object is there (it experientially seems to him that such an object is there), and there is one: the physical flower itself.

On the representational view, when Buddy hallucinates the flower, he does of course undergo a neural state – a pattern of neuronal activity – in his visual system. This is what enables him to experientially represent that a flower-shaped object is there, so that it seems to him that such an object is there. Dretske (1995) calls this neural state the "representation-vehicle". To make it vivid, we might fancifully imagine that a kind of "sentence" occurs in Buddy's brain, written in the brain's language of synaptic interconnections and neural spikes. The neural sentence means *that there is a flower-shaped thing in front of me*. (In fact, the representation-vehicle for experience is more likely "iconic" and "analog" in format; see Section 3.8.) Now, when you read written English, you have access to both the representation-vehicles (the sentences on the page) and their representational contents (what the sentences mean). But, according to representationalists, experiential representation is very different. Buddy has no access at all to the neurally-realized representation-vehicle. He only has access to the representational content – the way the world seems to him as a result of his neural state.

To better understand the representational view, it will be helpful to appeal to the idea of a *property* (an idea we briefly encountered in Section 2.6). Suppose you believe that a certain flower is *purple* and *flower-shaped*. You are "mentally attributing" two properties to the flower: the property of being purple and the property of being flower-shaped.

A property is a *way things might be*. For instance, purple is a way things might be. Properties – ways things might be – are more abstract than ordinary things (somewhat as numbers are). For instance, a specific shade of purple cannot be located in any particular place; if it is anywhere, it is wherever there is a thing with that shade. Properties are not created by the mind, any more than numbers are created by the mind. They are "objective". Even before minds came on the scene, external objects were certain ways: they had certain shapes, distances, orientations, and so on. There are properties that nothing has. For instance, in usual circumstances people can hallucinate novel colors that nothing has (see Section 5.5); those colors still exist because they are ways things *might* be. Properties – ways things might be – can be complex. For instance, there is the complex property of simultaneously being purple, flower-shaped, and three-feet away. Here I will simply assume the existence of properties, without presenting reasons to accept this assumption (but see van Inwagen 2004 and Yi 2018).

Now we can restate the representational view: having a flower-like experience is nothing but experientially representing that something has the complex property of being purple, flower-shaped, and three-feet away. In the case of Buddy's hallucination, there exists nothing that has this complex property; but Buddy's brain still "tells him" that something has the property.

In what follows, I will often drop mention of represented things and simply say that people "experientially represent properties" or "experientially attribute properties". You can take this as shorthand for saying that people experientially represent *that things have properties*. That is, it experientially seems to people that things have properties.

Representationalists do not think that Buddy *sees* the property of being flower-shaped and purple when he has his hallucination (but see Dretske 2003 and Tye 2019). Indeed, he sees absolutely nothing. All that is going on is that Buddy experientially represents that something has the property of being purple and flower-shaped. There is no such thing there for Buddy to see; it just seems that there is. Buddy also doesn't see the property of being purple and flower-shaped (a property which in this case nothing before him has), because this property is merely an abstract *way things might be*, not something Buddy can see. Rather, Buddy's mental relationship to the property is that he experientially represents that something has the property; it seems to him that something has the property. The property characterizes how it seems to him.

Of course, representationalists hold that, in normal experience, you count as seeing physical objects, states, and events. To return to the example above, Buddy's friend Barry counts as seeing a real flower, because the flower causes his experience in the normal way and the properties he experientially represents sufficiently match those of the flower (Jackson 2012: 203–205).

Representationalists hold that experientially representing a property gives you cognitive access to that property. It "puts you in touch" with the property. If you experientially represent a property at a time, then at that time you thereby can have thoughts according to which a thing has that property and can know what that property is like. So experiential representation plays an explanatory role in grounding cognition. It plays a role in the representational theory that is similar to the role played by experiential acquaintance in other theories (sense datum theory, naïve realist theory).

Here, then, is an initial formulation of the representationalist answer to the "character question", the question of what it is to have an experience with a certain character:

> **Representational view.** Having an experience with a certain character is identical with *experientially representing* a complex array of perceptible properties (shapes, distances, colors, and so on). All differences in the character of experience are differences in what complexes of perceptible properties one experientially represents – roughly, what your brain is "telling you" about the world. Experiential representation provides cognitive access to those perceptible properties.

Representationalists generalize their view beyond vision. For instance, in phantom pain, a person experientially represents that there is pain "in" the region where they used to have a leg. In fact, it is a misrepresentation; things aren't the way they seem. For their leg has been amputated. Likewise, having a smell experience consists in experientially representing that a smell quality (*minty*, *citrus-like*, etc.) is in a certain diffuse location. In a smell hallucination (phantosmia), the relevant quality is not really there (Batty 2010).

There is a problem with our initial formulation. It contains a made-up technical term, namely "experientially represents". To really understand the theory, we need to explain this term. You might think this is easy: to say that you experientially represent that something is F (e.g., purple, flower-shaped) is just say that that it seems to you that something is F. But, while this is a helpful initial gloss, we cannot explain "experientially

represents" in terms of the ordinary English term "seems". If you are stuck at a traffic light, it seems to you that you will be late. But, according to the representational theory, you do not experientially represent that you will be late. You experientially represent more basic things, and infer you will be late.

The best solution is to treat "experientially represents" as a new theoretical term akin to the theoretical terms of science, and then apply the general *Ramsey-Lewis method* (Lewis 1970) for defining new theoretical terms.

To illustrate, according to Ramsey-Lewis, the cosmological theory of "dark energy" can first be formulated without using this term. Fundamentally, it just says that there is some invisible stuff in the universe that explains certain observable phenomena (e.g., that the expansion of the universe is accelerating). Then we can introduce "dark energy" to refer to whatever in reality plays this role.

Likewise, representationalists postulate the mental relationship of experiential representation playing a certain explanatory role. Most importantly, it plays a *character*-role: the hypothesis is that having an experience with a certain character consists in nothing but experientially representing a certain array of perceptible properties (ways things might be), so that differences in character are always differences in the array of perceptible properties. In addition, representationalists say that experiential representation plays the *cognitive-access* role. That is, if a thinker experientially represents a perceptible property at a time, then at that time they thereby can have thoughts according to which a thing has that property and can know what that property is like. According to representationalists, another key feature of the experiential representational relation is that, like other representational relations, it is *existence-neutral*: one can experientially represent a property (e.g., being purple and flower-shaped), so that it *seems* that there exists something with the property, even if in actuality there exists nothing that has that property.

So by using the Ramsey-Lewis idea, we can eliminate from our formulation of the representational view the distracting technical term "experientially represents":

> **Representational view.** All sensory-perceptual experiences consist in a basic mental relationship *R* between *subjects* and *ways things might be* such that: *R* plays the cognitive-access role, *R* is existence-neutral, and *R* plays the character-role.[1]

Then we can introduce the theoretical term "experientially representing" to mean the unique relation R (if there is one) that has the postulated features.

But, as I said above, you shouldn't get too caught up in terminology; we could also call *R* the "seeming relation" or the "appearing relation".[2]

I have formulated the representational view in terms of properties (like Dretske in the opening quote). But you will also often encounter formulations of the representational view in terms of possible states of affairs (or what Bealer calls "conditions" in the opening quote). The idea is that there are possible states of affairs that do not obtain as well as states of affairs that do obtain (Plantinga 1974). Philosophers sometimes call these sorts of things "propositions" or "contents" that can be true or false. For instance, there exists a possible state of affairs in which Hilary Clinton became the US president, but it doesn't obtain. On this way of thinking about the representational view, if Buddy should see a flower and then have an identical hallucination of one, in each case he experientially represents (or, as Bealer says, "senses") a state of affairs (or possible scene) in which there is a purple and flower-shaped thing before him, so that it seems real to him; in the first case the state of affairs obtains and in the second case it doesn't.

Finally, we must make sure we understand the difference between the representational view and the views examined in Chapters 1 and 2.

On the sense datum view, in both the normal case and the hallucination case, Buddy's brain creates a life-like image (a kind of mental field) for him to experience, an image that has the properties of being purple and being flower-shaped. By contrast, on the representational view, the brain never creates any images or mental objects for you to experience; it just causes it to seem to you that some objects exist. For example, due to Buddy's aberrant neural processing, it experientially seems to him that there is something before him with the properties of being purple and being flower-shaped. In this hallucination case, no such thing does exist. His brain also doesn't create the properties: these are objective, abstract ways things that might be. Analogy: when the schizophrenic's brain causes him to believe that there is a demon with the property of being evil, it doesn't cause anything new to come into existence.

As for the internal physical state view, it holds that the essence of experience is to be found entirely in the neural patterns that realize experience. Representationalists think that this is a big mistake. The essence of experience is not to be found in the internal neural patterns that enable us to experientially represent the world, but in the external properties (flower-shaped, purple, etc.) that we experientially represent. In the same way, it would be a mistake to think that the essence of a story is to be found in

the patterns of marks on the pages of a book. It is to be found in what the patterns of marks represent.

Our basic Ramsey-Lewis formulation of the representational view is schematic. It leaves many questions open. It says that there is a mental relationship, experiential representation, that plays a certain theoretical role. But it doesn't say anything about the nature of this mental relationship (just as the theory of dark energy doesn't say much about its nature). For instance, can what it is for you to experientially represent that something has a certain perceptible property (what it is for it to experientially seem to you that something has a certain property) be reduced to something more basic? In addition, our formulation of the representational view leaves open the nature and status of the perceptible properties.

One version of the representational view holds that physical things had perceptible properties before sentient creatures like ourselves evolved. For instance, things were purple before we came on the scene. Then we came to experientially represent the color purple by virtue of having visual systems that detect its occurrence in the world (in the way that a thermometer represents a preexisting temperature). On another version of the representational view, before we evolved, physical objects merely reflected colorless photons, and didn't intrinsically possess any colors. Our brains are inventive: they somehow enabled us to experientially represent wholly chimerical color properties (the apparent purple of flowers, the apparent bright red of a tomato, etc.) that had never occurred in the world, in order to help us identify and keep track of objects. In normal perception as in hallucination, the experience of the color purple is internally generated.

We will look at these different versions of the representational view in Chapter 4. The present chapter is about the basic theory.[3] Now that we understand the basic theory, we can ask why we should believe it.

3.2 The argument for the representational view: an inference to the best explanation

The standard arguments for the representational view are based on the "transparency observation" (Section 2.3), the desire to have a physicalist theory that avoids non-physical sense data (Section 1.8), or the analysis of statements describing how things look or seem. However, many think now that these standard arguments fall short.[4]

Therefore, we will develop an alternative *inference to the best explanation argument* for the representational view. I will begin with a brief summary of

the argument, so that you can get the general idea. Then I will develop the argument in more detail.

In short, the argument is that the representational view may better explain the facts of perception than rival views. It has many explanatory virtues. Let me briefly list some of them.

First, the representational view is in line with the pretheoretical datum of essential external directedness. This is an advantage of the representational view over the internal physical state view, which is apparently incompatible with essential external directedness (Chapter 2). For instance, it is in the essence of typical visual experiences that when you have those experiences it seems to you that there are things arranged in space. As a result, experience is a source of externally directed cognition. The representational view explains this in the simplest way possible: it holds that for you to have visual experiences *just is* for it to seem to you that there are things arranged in space – that is, for you to "experientially represent" that there are things arranged in space. This explanation of essential external directedness has the added advantage of avoiding the problematic sense datum view. Just as you can believe that there is a sphere in the next room even if there isn't one, so you can hallucinate a sphere in front of you even if there isn't (a physical or mental) sphere in front of you.

Second, the representational view nicely explains another important fact about the phenomenology of experience. Experiences vary in precision and completeness. For instance, when you view an object in front of you, there may be imprecision in how distant it appears to be, if depth cues are absent. If an object is moved from central vision to peripheral vision, there is a gradual reduction in perceptual precision. If you then close your eyes and imagine the object, you have a kind of visual experience, but it is even more imprecise and degraded. An example of perceptual incompleteness is the experience of "pure motion", in which you experience movement separately from all other features (see Section 1.11). The representational view elegantly explains and predicts these facts. Representational states in general vary in precision and completeness. For instance, as more evidence comes in, a detective can form more and more specific beliefs about a murderer. And if someone tells you that something in the next room fell down, but tells you nothing else about it, you represent its movement but you attribute no other properties to it. So if experiences are also a special kind of representational states, we would expect that they too can vary in precision and completeness. No other view so neatly predicts these facts.[5]

Third, internal dependence. There are internally-generated illusions and hallucinations. There is also evidence that, even in normal experience, your experience of "sensible properties" (pain qualities, smell qualities, color qualities) is more dependent on your neural responses than on the objective character of external items. The representational view can explain internal dependence as well. Experiencing consists in representing things and qualities in space, but in some cases how we experientially represent the external world is due to our own internal processing, rather than to the character of the world itself. In Chapter 4, we will take up the issue of how this is so. In Chapter 5, we will see that contemporary naïve realism has trouble with internal dependence.

So much for our brief summary of the best explanation argument for the representational view. I will now develop a more detailed form of the argument. For purpose of illustration, I will continue to focus on the example introduced in Section 3.1 in which Buddy hallucinates a purple flower and Barry has an identical experience of a real flower.

But first some preliminaries. To begin with, in the case of the flower-experience, *essential external directedness* is the claim that it is part of the essence of having the flower-experience that when a person has this experience it seems to them that there is something there that is shaped f_{17} and colored purple_{42} – you have an experience as of such an object. Here f_{17} is the specific, irregular apparent shape that appears to Buddy and Barry when they have their experience – the one depicted in Figure 3.1. (Imagine that we assign a number to different specific flower-shapes, and that this shape is f_{17}.) And purple_{42} is the specific apparent color.

Because the flower-experience is essentially externally directed, it can explain *externally directed cognition*. Necessarily, if a thinker has this experience, then they thereby can have a thought that is true just in case something before them is shaped f_{17} and colored purple_{42}.

Now for another preliminary point. Given the existence of *properties* (Section 3.1), essential external directedness implies something a bit stronger and more theoretical: having the flower-experience, in both veridical and hallucinatory cases, provides "cognitive access" to the external properties of having shape f_{17} and having color purple_{42}. These properties are "external" in the sense that they needn't be instantiated in a person's brain when they have the experience.

For instance, consider Barry again. Barry enters a room and actually sees a flower just like the one Buddy hallucinates. By having the flower-experience, Barry can now think that something is f_{17}. He can think this

by thinking that something is *shaped that way*. Before entering the room and having this experience, he didn't have this specific cognitive capacity. True, using language, he could think, for instance, that "something in the next room is roughly flower-shaped". But, unaided by experience, he couldn't think that something is *precisely* f_{17}. For he had no way of mentally singling out precisely this shape. It is only by entering the room and having his present experience that he can now attribute this shape to something in thought. His experience offers up an ostensible example of this precise shape.

The same points apply to Buddy. Even though it is hallucinatory, Buddy's flower-experience enables him to wonder whether there actually is something before him that is f_{17} – something he cannot do unaided by experience. It does this by offering up an ostensible example of this precise, idiosyncratic shape. Furthermore, in both veridical and hallucinatory cases, the flower-experience provides cognitive access to the color *purple*$_{42}$.

With the preliminaries out of the way, we can formulate an argument for the representational view. Recall that, according to our final "Ramsey-Lewis" formulation of the representational view, it amounts to this: sensory-perceptual experiences consist in a basic mental relationship *R* between *subjects* and *ways things might be* such that: *R* plays the cognitive-access role, *R* is existence-neutral, and *R* plays the character-role. The argument will establish these tenets of the representational view one-by-one in a series of steps. I will first list the steps; afterward I will explain them.

(1) To explain how the flower-experience provides cognitive access to the external properties of having shape f_{17} and having color purple$_{42}$, in both veridical and hallucinatory cases, we should hold that having this experience essentially involves standing in some *relation R* to these properties. This relation plays the *cognitive-access role*. Therefore, contrary to the internal physical state view, the flower-experience is more than a neural state.

(2) To explain perceptual imprecision, we should hold that this relation *R* to the external properties of having shape f_{17} and having color purple$_{42}$ is *existence-neutral* rather than *existence-dependent*: in a hallucination case, there exists no object ("sense datum") having the properties. This rules out the sense datum view.

(3) Once we go this far and accept that having the flower-experience *necessarily involves* standing in an existence-neutral "representational" relation *R* to the external properties of being f_{17} and being purple$_{42}$, the simplest theory becomes that the flower-experience is *nothing but* standing in this representational relation to these perceptible properties.

(4) The previous steps can be repeated for other experiences with different characters: the relation is the same, and only the array of represented properties differs. Therefore, the hypothesized "representational" relation *R* plays the *character-role*.

(5) In addition, the representational view can accommodate internal dependence, by holding that in some cases what properties a person is *R*-related to depend on their internal physical state. This is an advantage of the representational view over naïve realism.

(6) *Conclusion*. The representational view follows: all sensory-perceptual experiences consist in a basic relationship *R* between *subjects* and *arrays of perceptible properties* such that: *R* plays the cognitive-access role (step 1), *R* is existence-neutral (step 2), and *R* plays the character-role (steps 3 and 4).

Now let us go through these steps.

Step 1. This step claims that, in order to explain how the flower-experience provides cognitive access to the external properties of having shape f_{17} and having color $purple_{42}$ in both veridical and hallucinatory cases, we should hold that having this experience essentially involves standing in some *relation* R to these properties.

How to prove this? G. E. Moore (1903: 450) famously said, "when we try to introspect the sensation of blue, all we can see is the blue: the other element [the mental relation we bear to blue] is as if it were diaphanous [invisible]". Even if he was right, we can support step 1 by a theoretical inference.

First, consider Buddy's flower-like hallucination. Having this experience *must* involve his standing in a basic perceptual relationship to the properties of being f_{17} and being $purple_{42}$ – a relationship that is more basic than cognition. For, if this were not the case, how might his experience *explain* his cognitive access to *these specific properties*, rather than some other properties?

(In Section 5.5, we will see that proponents of the "indiscriminability" theory of hallucination deny any such positive characterization of Buddy's hallucination, but they face a problem concerning how hallucination explains cognitive access to novel properties.)

Now turn to Barry's flower-like experience in a veridical case. The same point applies. And there is reason to think that the relevant relation, R, to the properties of being f_{17} and being $purple_{42}$ is the same in Barry's case and in the case of Buddy's hallucination. This is the simplest view; and it is supported by the finding that the underlying neural processing is similar across the cases (ffytche 2013).[6]

Step 2. This step says that, in order to explain perceptual imprecision, we should hold that the hypothesized perceptual relation *R* that Barry bears to the properties of being f_{17} and being $purple_{42}$ is *existence-neutral* rather than *existence-dependent*.

To see this, suppose instead that we accept existence-dependence about our postulated mental relation *R* rather than existence-neutrality. This assumption means that, when Buddy has his hallucination and is *R*-related to the properties of being f_{17} and being $purple_{42}$, then there must exist before him a spooky non-physical image ("sense datum") that possesses these properties. In general, whenever you have a visual experience, the entire space you experience is in fact a private mental arena.

In Chapter 1, we saw that the sense datum view is seductive. H. H. Price (1932: 3, 63) noted that it just seems obvious that there exist colored objects in all visual experience, even hallucinatory visual experience. However, we also saw that its many problems outweigh its initial appeal. Those problems support existence-neutrality.

For one thing, if there exists a flower-like sense datum that Buddy experiences, *where is it?* Is it in the physical space before Buddy, but only visible to him? Is it in a private mental space, like a non-physical ghost in another realm? Existence-neutrality allows us to entirely avoid the question. Buddy is *R*-related to the properties of being f_{17} and being $purple_{42}$, so that it *seems* to him that something has these properties, but in reality there exists no such spooky thing. If it doesn't exist, we don't have to worry about its location, just as we don't have to worry about the location of the Tooth Fairy.

For another thing, existence-dependence fits poorly with perceptual imprecision (as we discussed in Section 1.11). To see this, take a different case. Imagine that Buddy has a very degraded and imprecise hallucination of a purple flower – more like visual imagination. We can explain this by supposing that Buddy can be *R*-related to unspecific properties (e.g., being roughly purple, being roughly flower-shaped, having many pedals), without being *R*-related to more specific properties (e.g., having shape f_{17}, being $purple_{42}$, having exactly 17 pedals). Given existence-dependence, there would have to exist a "sense datum" experienced by Buddy that has unspecific properties without any specific properties. It would have to have many pedals but no specific number of pedals. This is incoherent. If, on the other hand, we hold that our postulated perceptual relation *R* is existence-neutral, then we can avoid this result.

Sense datum theorists like Russell (1912a: 101–102) claimed that visual experience necessarily relates us to ("puts us in touch with") both objects

and properties; in fact, experience relates us to properties *by* relating us to objects ("sense data") that actually exemplify the properties. The lesson of the argument so far is that we should keep their claim when it comes to properties but reject it when it comes to objects. For instance, having the flower-experience necessarily relates you to the properties of being f_{17} and being $purple_{42}$ but it doesn't necessarily relate you to an actual object (physical or non-physical) having these color and shape properties. In hallucination, it only seems that this is the case. So the "common factor" running through all cases of the flower-experience is not the presentation of the same kind of existing *object* (e.g., a sense datum) but the presentation of the same *properties*. The common factor is not a relationship to a *thing* but rather a relationship to a *way things might be*.

In sum, the best view is that our hypothesized *R* relation to the properties is existence-neutral. For this reason, it is fitting to call it a "representational" relation, where inaccurate as well as accurate representation is possible. So we can say that both Buddy and Barry "represent" the complex property of being f_{17} and $purple_{42}$.

Step 3. This step says that, once we think that having the flower-experience *necessarily involves* standing in an existence-neutral, representation relation *R* to the property of being f_{17} and $purple_{42}$, the simplest view becomes that the flower-experience is nothing but standing in this special relation to this complex property. The relation is an *experiential* representation relation. If you stand in this special relation to the complex property, in a way that gives you cognitive access to it, then this is enough for you to have the flower-experience in which it seems to you that something is present with this complex property. Nothing more is required. The experience is a pure representational state, or a pure seeming-state.

Some will resist this step. They will say that, in addition, the flower-experience involves underlying "sensations" or "qualia", which somehow "ground" or are a "vehicle for" the representation of being f_{17} and $purple_{42}$ (e.g., Peacocke 2008). But representationalists will object that this "dual component" view may lead back to the sense datum view (Chapter 1), and that it is unmotivated and obscure.

Step 4. This step says that the previous steps can be repeated for other experiences with different characters: the relation is the same, and only the array of represented properties differs. Therefore, the hypothesized "representational" relation *R* plays the *character-role*.

In particular, the steps 1–3 apply equally to other types of visual experiences. Different types of visual experiences provide cognitive access to

different arrays of perceptible properties. Steps 1–3 show that the best explanation is that they consist in nothing but standing in the same existence-neutral "representational" relation *R* to these different arrays of perceptible properties.

Further, steps 1–3 extend beyond vision. Take bodily sensations. Bodily sensations give you cognitive access to properties that need not be located where they seem to be located. For example, you can have an experience of a *stabbing pain* in your forearm as being *closer* to an *itch* in your elbow than another *stabbing* pain in the same forearm. These sensible properties needn't be instantiated in this spatial pattern anywhere in the physical world or in your brain (they could be phantom sensations). Nor should we posit non-physical sense data arranged in some kind of non-physical "body space" to account for this case. The best account is that your experience consists in your standing in the same representational relation *R* to certain sensible properties and spatial properties – the same representational relation involved in visual experience.[7]

Still, you might wonder how do we know that there aren't some counterexamples: cases of differences in the character of experience that cannot be said to consist in differences in the properties to which we are *R*-related? Shouldn't we address this question on a case-by-case basis?

We will look at several hard cases in the next section. For now, we can give the following argument that there cannot be decisive counterexamples to our very schematic "Ramsey-Lewis" version of the representational view. To begin with, if you have reason to believe that there is a difference in character between two of your experiences, then you must notice a difference, or an apparent difference. Otherwise, why believe that there is a difference? But a difference is just a difference in properties. Now, our Ramsey-Lewis formulation of the representational view doesn't come with any "rule" concerning what properties we can experientially represent (see note 2 of the present chapter). It places no restriction here. So it will always be possible for representationalists to say that the relevant difference in character consists in a difference in what properties you bear relation *R* to. Further, considerations of uniformity and simplicity will favor generalizing the representational view in this way. In the next section, we will apply this strategy to a number of cases.

Step 5. In addition, the representational view can accommodate internal dependence, by holding that in some cases what properties a person is *R*-related to depend on their internal physical state. This will be taken up

in Chapter 4; and in Chapter 5, we will see that naïve realism has difficulty with internal dependence.

Summary and Conclusion. The representational view follows from these steps: all sensory-perceptual experiences consist in a basic relationship R between subjects and arrays of perceptible properties such that: R plays the cognitive-access role (step 1), R is existence-neutral (step 2), and R plays the character-role (steps 3 and 4).

This concludes our discussion of the best explanation argument for the representational view of sensory experience. In Sections 3.3–3.7, we will consider several questions that all representationalists face. Some of these questions may call this argument into doubt.

3.3 Can the representational view explain all sensory-perceptual experiences?

The best explanation argument for the representational view initially focused on the flower-experience (steps 1–3) and then argued that it will always be possible and indeed desirable to extend the representational view to other types of experiences (step 4). But you still might wonder exactly how the representational view applies to certain hard cases. We will address impoverished experiences, blur, and gestalt switches.

Impoverished visual experiences. Christopher Peacocke argues that the representational view fails for impoverished visual experiences:

> When you close your eyes and point your head in the direction of the noonday sun, you have a visual experience in which there are colours and shapes, and usually some motion, in your visual field. It does not thereby look as if there are objects or events in your spatio-temporal environment. The visual experience in this example [therefore] has no representational content concerning the subject's environment.
>
> (Peacocke 2008: 8–9)

Peacocke's argument here assumes that you experientially represent property P only if it looks to you as if some ordinary (physical) object or event in your environment has property P (see also Boghossian and Velleman 1989).

But, as noted in step 4 of the best explanation argument for the representational view, our final Ramsey-Lewis formulation of the representational view is not committed to any such general, hard-and-fast rule. It merely says that experience consists in bearing some relation R to properties,

where the relation plays a certain theoretical role. It places no constraints on what those properties might be. In particular, the properties needn't always seem to qualify some physical object. Some forms of experiential representation may not take the form of attributing properties to physical things. This calls into question Peacocke's stated reason for there being no representational content in his noonday sun case.

Representationalists still need an account of the case. But this is not far to seek: they might simply say that you experientially represent that some shapes and colors are "in" some region, even though this is not the case.

This co-opts Peacocke's own account. Peacocke (2018) develops an account resembling the sense datum view. He believes that all visual experience involves a kind of mental screen or visual field. In his example, the screen is very boring; as he says, you just experience a few colors and shapes "in" visual field regions. The above representationalist account agrees with Peacocke's characterization of the state of affairs you experience; the only difference is that it holds that the state of affairs doesn't obtain. So it doesn't require the real existence of a peculiar mental screen where the colors and shapes reside. Such a screen doesn't exist anymore than Buddy's hallucinated flower does. (See also note 8 of Chapter 1.)

Blurry vision. Another common argument against the representational view involves blurry vision. You look at a red tomato on a white table with your glasses on. Then you take your glasses off. The character of your experience changes. Yet, to a mature perceiver, it doesn't look as if there is any real difference in the tomato itself. As A. D. Smith puts it, "Blurriness is not a way that things in the world themselves seem to be" and "blurriness is not taken to be a feature or apparent feature of the object seen" (2008: 200–201). Therefore, you might conclude, there is no difference in what you experientially represent, contrary to the representational view.

The reason offered here for the assertion that there is no representational difference is questionable, just like the reason Peacocke offered for there being no representational content at all in his noonday sun case. The fact that it doesn't look as if any physical thing is different doesn't mean there is no representational difference at all. No such restriction is part of the representational view.

Still, representationalists will want some positive account of blur. Two main representationalist accounts have been proposed. On Michael Tye's (2000: 79–83) *under-representation* account, when you take off your glasses, you continue to experientially represent the color and shape of the tomato in a pretty determinate way, but you no longer experientially represent

precisely where the boundary is between the red tomato and the white table. Your visual system represents that it is *somewhere* in a certain range (e.g., between points *A* and *B*), but not exactly where. Since the boundary is in fact within the range, the representational content of the experience is accurate. Tye claims that this kind of under-representation constitutes the experience of the blurry "halo" around the tomato. Keith Allen (2013) rejects this account; he surmises that such under-representation, if it were to happen, would be phenomenally different from our actual experience of the blurry halo. So he offers a different account: the *over-representation* account. It is as if the visual system thinks along these lines: "I know that the boundary between the tomato and the table is roughly between places *A* and *B*, but I don't know precisely where the boundary is between *A* and *B*, and so, rather than taking a stand, I will just represent it as being at *every* point in this range!" On this view, blurry vision is an extreme illusion: you visually (mis)represent an impossible state of affairs. According to Allen, this is what is needed to explain the experience of blurry "haloes" around the tomato. On both views, there is a representational difference, even though it is also correct to say "it doesn't seem to you that there is a real difference in the tomato itself" because you know that there isn't one.

For the sake of discussion, suppose both accounts fail. Would that mean that the representational view fails in the case of blurry vision and we should instead accept a non-representational account?

This is not obvious. Often opponents of the representational view who use the example of blur (e.g., Burge 2003) do not offer their own illuminating account of it. But when they do, it can just be co-opted by the representationalists.

For example, Boghossian and Velleman (1989: 96) offer an account of blur that presupposes something like a general "sense datum" theory of experience. When you see a tomato, what you take to be public space is in fact your private mental arena. A region within this mental arena has the properties of being reddish and being round. When you take off your glasses, this region acquires a third property: being blurry. Boghossian and Velleman do not say anything about this property, except that it is a property of visual field regions and not physical objects.

Representationalists could co-opt this account. They can say that you experientially represent that there is before you something, round, and blurry. (Or maybe it is more phenomenologically apt to say you experientially represent that blurriness resides "in" or "around" the region of the red and round thing without being attributed to that thing.) But they will

add that, while regions appear "blurred" because of the operation of the visual system, this is a property that nothing in reality ever possesses. This representationalist account agrees with Boghossian and Velleman's description of what you experience; it just adds that what you experience is unreal. So it is hard to see how it could be inferior to Boghossian and Velleman's visual field theory. In fact, it is superior because it avoids the postulation of a peculiar mental screen where blurriness resides.

We have just looked at alleged problem-cases for the representational view in which the qualities we experience don't seem to us qualify any physical objects that we perceive. It is worth mentioning that the responses we have considered generalize to other cases of this kind: pain, brain grey, ganzfeld, highlights, shadows, and so on. The representational view places no restrictions on what we can experientially represent. Take the anti-representationalists' most phenomenologically acute account of what you experience in such cases. Representationalists might co-opt their account, but then add that what you experience may not be real.

Gestalt switches. Some have suggested that certain "gestalt" (form or pattern) switches make trouble for the representational view (Peacocke 1983; Macpherson 2006).

Let's start with a simple example. You are liable to experience the triangles in the top row (Figure 3.2) as pointed to the left, and the triangles in the bottom row as pointed to the top right. In fact, you can also see a solitary triangle as "pointed to the left" or as "pointed to the top right". Between these cases, there is a clear shift in the character of your experience of the solitary triangle. How might representationalists explain this change in your experience of the solitary triangle? At first blush, this is easy: in the first case, you experientially represent the solitary triangle as pointing to the left, whereas in the second case you experientially represent it as pointing to the top right.

The problem is that this is extremely obscure. What does "being pointed to the left" mean? What would it be for triangle – or another object – to actually have this alleged property of "being pointed to the left"?

Here is an idea. Think of a school of fish; we experience them as "pointed" in a certain direction, and this plausibly means they have a propensity to move in that direction. Likewise, we experience a lion about to pounce as having a propensity to move in a certain direction. It makes evolutionary sense that the visual system should have a tendency, given certain cues, to represent natural objects as having such propensities of movement. When we experience the "school" of triangles in a row, maybe the visual system

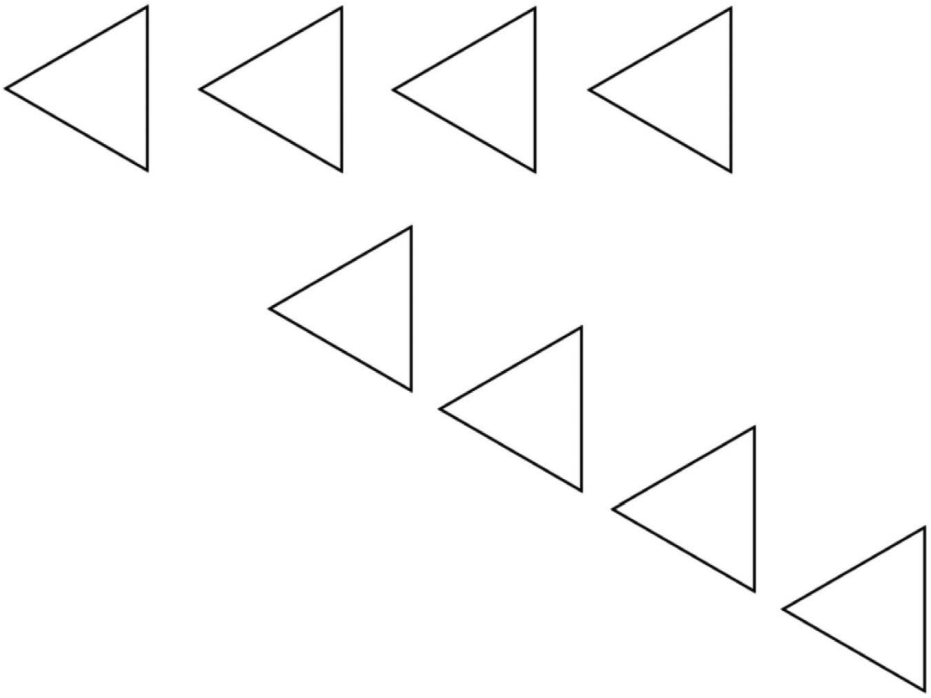

Figure 3.2 A triangle can be seen as pointed in different directions.

overgeneralizes, so that we experientially represent them as "pointed" in a certain direction, in the sense of having a propensity move in that direction, even though they are static lines on a page. Likewise, when we view a solitary triangle, we can experientially represent it as having a propensity to move in various directions.

Now let us turn to another case. You can experience the Figure 3.3 as a tilted kite or as a distorted square (Macpherson 2006). There is a change in the character of your experience between the two cases. This is another "gestalt switch". Given the representational view, you must experientially represent different properties. What might they be?

Vision scientists (Rock 1997; Palmer 1999) say that in such a case the visual system imposes on the figure different "object-centered perceptual reference frames". When you experience the figure as a tilted kite, you represent one axis as the "up-down" direction (below). When you experience it as a distorted square, you represent a different axis as the "up-down" direction (above).

However, as it stands, this account is obscure. What would it be for an axis to really have the property "being the up-down axis"? That is, when

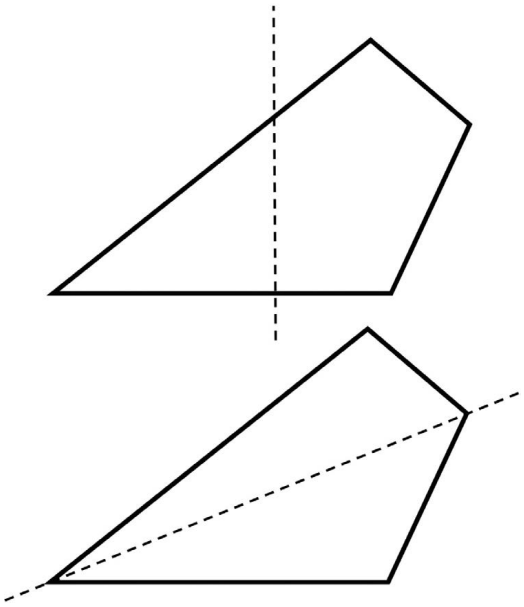

Figure 3.3 You can see this figure as tilted kite or as a distorted square.

you experientially represent one axis as the up-down axis, how would the world need to be in order for your experience to be veridical?

Many natural objects – trees and people, and so on – have an axis that is normally aligned with gravity. So one idea is that, when you represent the sideways direction of the figure as the top-bottom direction, what this means is that you represent it as the axis that is *normally aligned with gravity*. That is, you represent it as *tilted from its normal orientation*. Now, unlike a tree or a person, this is a non-natural object with no privileged normal orientation. So your experience is non-veridical.

But what is it for an axis to be *normally* aligned with gravity? Also, it is a bit hard to believe that the visual system represents these very sophisticated properties about objects' normal orientations.

Here is another account of this case. We just saw that we may experientially represent, at a very basic level, the propensities of objects to move in certain directions. Maybe, when we experience the figure as a kite, we experientially represent it as *unstable*, that is, as having a propensity to fall in a certain direction (for relevant research see Battaglia *et al.* 2013). By contrast, when we experience the figure as a distorted square, we experience it as *stable* – as sitting solidly on its base.

A final point. We have seen that it is unclear how exactly representationalists might account for certain gestalt shifts. Should this cause us to doubt

the representational view? Maybe not. For we can apply to gestalt switches the general point made in step 4 of the best explanation argument: since in undergoing the gestalt switch you notice an ostensible difference, it is always open for representationalists to simply rest content with saying that the difference – whatever it may be – is represented, remaining neutral on the difficult issue of how it is to be characterized. No plausible non-representationalist account of the cases has been offered that could not be co-opted by representationalists.[8]

3.4 How rich is the content of experience?

Suppose we land on another planet and interact with aliens for the first time. Unlike us, the aliens haven't seen anything like our human faces and don't have a recognitional capacity for them. If you and an alien look at a human face, it will look totally different to the alien than it does to you. In fact, the human face will look downright weird to the alien.

How should representationalists account for this kind of difference in the character of visual experience? One idea (Siewert 1998; Siegel 2010) is that you and the alien experientially represent the same local colors and shapes, but you also experientially represent the face as a *human face* whereas the alien doesn't. This is a *biological property* in the sense that it is only a property of living things. For instance, in the relevant sense, a statue of a human head doesn't have a human face – it just resembles a human face.

Recently, philosophers of perception have put forward more and more extravagant and attention-grabbing hypotheses about what properties are represented at the level of experience, for instance: *being angry*, *being a pine tree*, *being a computer*, *being mind-independent*, *being edible*, *being morally right*. Should we say that the representational content of sensory-perceptual experience is very rich and sophisticated in this way? Or is it relatively "thin" or "low-level", involving only colors, shapes, distances, and motions? This debate may be important. For instance, if it is very rich, the question arises: how does the visual system manage to represent very sophisticated properties (see note 9 of the present chapter).

Before we tackle the rich-thin question, we must better understand it. It is uncontroversial that it *seems to us* that something is a face, and that we *see* that something is a face. So if the issue is to be interesting, it had better not concern such ordinary-language descriptions. Susanna Siegel (2010: 78) says that the issue concerns what properties are "presented to us" in

experience. But "property *P* is presented to person *A*" is a technical locution. What does it mean?

The Ramsey-Lewis approach to understanding "experiential representation" can help us understand the issue. To say that we "experientially represent" a property is to say that we bear to it a relation that plays a certain explanatory role, most importantly, the *character-role*. Then the issue is: what are the properties the representation of which constitutes the character of our experience? For example, do they include the biological property *being a human face?* We will consider two arguments for a negative answer.

First, the *argument from parsimony-uniformity*. To illustrate the argument, consider a fanciful example. Return to the aliens. But now suppose that we never meet them, and so they never come face-to-face with human faces. But suppose that an inventor designs robots that, by a remarkable fluke, look just like humans. At first, the facial expressions of the human-like robots look totally weird to the aliens. But soon the aliens learn to effortlessly recognize them and their facial expressions. So there is a "gestalt switch" in their experience of the faces. Evidently, the explanation of the gestalt difference cannot be that they begin to experientially represent the biological kind *being a human face*. They have never encountered instances of this biological kind. The robot faces do not have this property. Instead, they have a broader property: the property of having a *human-face-like-shape* (or a smiley-face-shape, or any angry-face-shape). This is a complex, disjunctive, and hard-to-specify shape property that is common to both human faces and look-alikes like robots, statues, and so on. Roughly, it encodes a range of low-level visible cues of the kind by which we recognize human faces.

Here is another example due to Alex Byrne (Siegel and Byrne 2017: 71–72). Consider "greebles" (Figure 3.4). They are invented stimuli that are used to study object recognition.

You can learn to recognize greebles as such, as falling into certain greeble-types; after you learn how to recognize them, the character of your experience changes. You do not come to experientially represent greebles as having any new *biological* property – greebles are not living things. Rather, you come to experientially represent a new complex low-level property, the property of having certain shaped parts spatially arranged in a certain way.

Although the examples about the aliens and the greebles don't *prove* that we don't experientially represent the biological kind *being a human face*, they do suggest an alternative: when we look at a human face, we experientially represent the broader complex property *having so-and-so face shape* (for

Figure 3.4 A greeble. By Scott Yu, I. Gauthier, M. J. Tarr. CNBC Wiki at https://commons.wikimedia.org.

details see Chang and Tsao 2017). This would be the same kind of non-biological "gestalt" property that the aliens experientially represent when they encounter robot "faces" and that we experientially represent after we have learned to recognize greebles.

This explanation is not only available; for a couple of reasons, it is superior to the hypothesis that we experientially represent the biological property of being a human face. First, it is more uniform, because it applies the same explanation to all the cases. Second, it is more parsimonious, since the greebles case shows that the visual system already has the capacity to experientially represent such non-biological gestalt properties. Why not then account for the phenomena of face recognition in terms of this capacity we know the visual system already has?

In general, whenever someone proposes that we experientially represent a biological or social category P (being an angry face, being a tea-cup, etc.), it may always be better to hold that we instead experientially represent a more basic, non-biological, non-social property P*, where P* is a complex constellation of the lower-level visible properties ("cues") by which we recognize P.

There is a second argument for doubting that we experientially represent biological and social kinds: the *argument from false predictions*. Here is Alex Byrne:

> Imagine that lemons grown on Island *A* look like normal lemons, and that lemons grown on Island *B* look like cucumbers (due to the strange soil and climate). One develops a recognitional disposition for the fruit on Island *A*, and similarly for the fruit on Island *B* (but does not know that the fruits are identical). If [the rich view is right], then if one sees an *A* fruit and a *B* fruit side by side, they will both be visually represented *as lemons*. Presumably, then, *they will appear more visually similar after one has learned to recognize them by sight than they did before*. [This is] not borne out.
>
> (Byrne 2009: 449–450)

Here is an elaboration of Byrne's argument. The "rich" theorist says that, after the learning period, you will experientially represent both the island-*A* lemons and the cucumber-like island-*B* lemons as belonging to the biological kind *being a lemon*, and this will contribute to the allegedly new phenomenology of each experience. Now the following principle is plausible: if, after the learning period, both the experience of the ordinary lemon and the experience of the cucumber-looking lemon represent those fruits as *being a lemon*, and this contributes to what each experience is like, then there will be a new respect of experiential similarity between the experiences. The trouble, as Byrne says, is that this prediction is not borne out. The island-*A* lemons and the cucumber-like island-*B* lemons will continue to look totally different. This suggests that only lower level properties, like colors and shapes, contribute to phenomenology, and that biological properties like *being a lemon* do not.[9]

Finally, let us briefly consider a quite different debate about the contents of our visual experiences (for recent discussion, see Speaks 2015, 2017; Schellenberg 2018). Suppose you look at a tomato, then you look away, then the tomato is replaced by a distinct but indiscriminable tomato, and then you look back. It looks exactly the same to you. Call the first tomato *Harold* and the second one *Maud*. Here are two views. First, *singularism* says that the representational contents of your experiences differ in the two cases, even though you cannot tell a difference. You first experientially represent that *Harold* is red and round and in front of you, and then you experientially represent that *Maud* is red and round and in front of you. On singularism, then, your experiences, so to speak, encode the identities of the objects you experience, and not just the way they look. By contrast, *generalism* says that

the representational content of your experiences is exactly the same in the two cases. In both cases, you experientially represent (roughly) that *something or other* is red and round and in front of you. Your experience doesn't encode the identity of the object.

How might we resolve this debate? And why does it matter? To begin with, everyone will agree with the weak claim that in the two cases your two experiences can be *associated with* different "singular" representational contents, namely *that Harold is red and round* and *that Maud is red and round*. Even generalists can agree that there is a sense in which you "represent" these different singular contents. First Harold looks red and round to you and then Maud looks red and round to you. So what is the issue?

Suppose we take the issue to be whether the *character of your experiences* is constituted or grounded by different singular contents or the same general content. This is congruent with our Ramsey-Lewis formulation in Section 3.1.

In that case, there is a real question about how we could resolve the issue. Would the character of our experiences differ depending on whether singularism or generalism were true? For instance, for the sake of argument, suppose that in fact singularism is true. Presumably, it's possible that generalism should have been true instead. (See Section 3.8 for a general discussion on what kinds of experiences are possible.) Would the character of your experiences of the tomato have been noticeably different, had generalism been true instead? Arguably not. To see this, consider a group of twin humans, and let's stipulate that generalism is true of them. When a twin human looks at the tomato, it would seem to her that something or other is red and round and in front of her. So it would look to her just as it looks to you in the actual situation. There would be no visible difference.

So if we formulate singularism and generalism so that they concern what grounds the character of our experiences, and if which view is true makes no (noticeable) difference to the character of our experience, then it's hard to see how we could determine which view is correct.

3.5 The question of skepticism and the dogmatist answer

Imagine a far-fetched scenario. In the 22nd century, simulation technology (like "virtual reality") has reached an advanced state. Some computer scientists decide to have some fun. They create a brain and put it in a vat in a laboratory. They create a computer program that simulates a world (a world where a guy named "Donald Trump" gets to be president, where there is

global warming, etc.). The brain is hooked up to a computer running the simulation. The simulation determines which inputs the brain receives. When the brain produces outputs, these are fed back into the simulation. So this brain would have experiences as rich and convincing as your own, only they would all be hallucinatory. The computer scientists think this is hilarious.

Now here is a mind-bending question. How do you know that *you* are not a brain in a vat (BIV) living in a simulated reality? How do you rule out the *BIV hypothesis*? You think it is early in the 21st century, but maybe in reality you are a BIV in a computer simulation very late in the 22nd century. All your friends and family, all the objects you think are around you, all the world's events, are false creations, proceeding form your computer-stimulated brain. All that you see or seem to see is but a dream. The idea is preposterous, but how do you *know* it is not the case? If you reach out and touch something, you will have the same tactile experiences the BIV would have.

There are two questions here. First, how do you *know* that there really exist things with shapes and colors in space out there, as against BIV hypothesis? Second, how do you so much as have a *good reason* for thinking this?

These are difficult questions for everyone. They even arise for "naïve realists" (see Section 1.8). But the representational view makes them salient. If our experiences are just representations, how do we know that they are not all inaccurate representations?

One traditional answer appeals to an inference to the best explanation (Russell 1912; Vogel 1990). The BIV hypothesis is weird and complicated. A better explanation of why it seems that there are objects out there is that there really are objects out there. So, you might infer that the BIV hypothesis is probably false, and probably things are just as they seem. On this view, ordinary things are theoretical posits no less than electrons.

However, all this seems pretty shaky. Also, ordinary people don't in fact carry out such an elaborate inference. Instead, they immediately believe that there is a real world.

This leads to a quite different response to the skeptic, the *dogmatist* answer (e.g., Pryor 2000). Suppose you experientially represent that before you is something with flower-shape f and the color purple. Dogmatists say that you consequently have a strong reason to believe that an f-shaped and purple thing is really there, contrary to the BIV hypothesis. Dogmatists deny that the reason is based on an inference. Instead, it's just in the essence of "experientially representing" that some object is *F* that it automatically

gives you an "immediate" reason to believe that some object is F, a reason that doesn't depend on your reason to believe anything else. (This is related to idea that the act-object assumption is "intrinsically plausible".) True, Buddy Burmester (or a hypothetical BIV) experientially represents that something before him is f-shaped and purple, even though in this case there is no such thing there. Still, even his experience gives him some reason to believe that such a thing is there. It's just that the reason is defeasible.

Here is an analogy. It's in the essence of some experiences – pains and pleasures, taste experiences, and so on – to give you some reason to *desire* that they stop or continue. So why can't it be in the essence of experientially representing that some object is F to give you a reason to *believe* that something is F?

The dogmatic response to radical skepticism has some plausibility. But it also faces several problems. Let us look at a few.

(1) Dogmatism only addresses the question of how you have a *reason* to believe (for instance) that there really is an f-shaped thing there and to reject the BIV hypothesis. But how can you *know* this? After all, if your reason is your experience, and if you could have the same experience in a hallucination case, your reason isn't conclusive.

In response, dogmatists can deny that knowing something requires a conclusive reason to believe that thing. For instance, they can say (roughly) that you count as knowing that an f-shaped thing is there just in case you have a good (but not necessarily conclusive) reason to believe that an f-shaped thing is there, you believe it on the basis of this reason, and your belief is safely true. So, when you experientially represent that an f-shape thing is there, if you are lucky and really do live in the real world (rather than being a constantly hallucinating BIV), you automatically count as knowing that there is such a thing there, without having to carry out an inference.

(2) Another problem concerns the ability of dogmatism to answer skepticism (Schiffer 2004: 177). We saw that dogmatists hold that when you experientially represent that something has property F, then you automatically have a reason to believe that something has property F, and "inference to the best explanation" is not involved. But, in Section 3.4, we also saw that there are reasons for thinking that the properties we experientially represent are pretty "thin": they include *being f-shaped*, *being purple*, *having a propensity to move left*, but not *being a human face*, *being a flower*, *being a house*, and so on. In that case, dogmatism implies we only have immediate, experience-based reason to believe things about the colors, shapes, and movements of things around us.

However, the vast bulk of our beliefs go beyond this. We believe that the things around us are people, flowers, houses, and so on. We also believe in distant planets and subatomic particles. Dogmatists need a story about the source of our reasons to believe all these other things. For instance, what is the source of your reason to believe that the thing before you is a flower, rather than a fake-flower?

More generally, what is the source of your reason to reject the *fake-world hypothesis*: the hypothesis that you are correct about the colors, shapes, and movements of things in your immediate environment, but everything else is "fake" or "staged" (like in the movie *The Truman Show*)?

To explain how we have reasons to believe all these things going beyond perceptually basic properties, dogmatists may after all need to say that that we make heavy use of "inference to the best explanation". But that is exactly what they wanted to avoid.

(3) We will end with an interesting problem of detail. The problem is generated by two ideas:

(1) *Degree:* Our immediate experience-based reasons come in varying degrees.

(2) *Binary:* Experiential representation does not come in degrees: either you experientially represent a state of affairs or you don't.

(3) Therefore, contrary to dogmatism, facts about what we experientially represent cannot fully explain the facts about our experience-based reasons.[10]

To illustrate, consider your experience of the shades *a*, *b*, and *c* in Figure 3.5.

When you experience the three shades here, it strongly strikes you that shades *a* and *b* are distinct. So you have a strong immediate reason to believe that they are. By contrast, it only *kind of* appears to you that shades *b* and *b'* are distinct. (In fact, shades *b* and *b'* barely differ.) So you have less reason to believe that shades *b* and *b'* are distinct than you have to believe that shades *a* and *b* are distinct.

Now suppose that experiential representation doesn't come in degrees. Either you experientially represent that shades *b* and *b'* are distinct, or you don't. If so, then dogmatists cannot explain why our experience-based

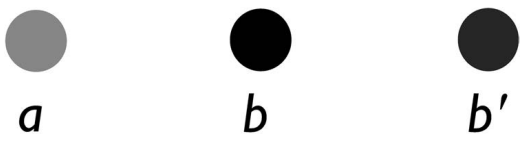

Figure 3.5 Degreed perceptual justification.

reasons vary in degree by appealing to facts about experiential representation alone.

In response to this problem, dogmatists could reject Binary and instead accept *degreed representationalism*. On this view, experiential representation does come in degrees. For instance, you experientially represent that *shades a and b differ* with more "phenomenal force" than you experientially represent that *shades b and b' differ*. This is part of the character of your experience. And dogmatists could put forward a general principle: the strength of your experience-based reasons to believe that a state of affairs obtains is proportional to the "phenomenal force" with which you experientially represent that state of affairs.

There are however problems with degreed representationalism. Let me just mention one. Can degrees of "phenomenal force" vary independently of the representational content of experience? For instance, could the following situation happen? You experientially represent the very same fine-grained shades shown above. In every detail, all the contents of your experience are exactly the same as in the actual situation. In the hypothetical situation, there is only variation in the "phenomenal force" with which you experientially represent the relevant contents. In particular, oddly, you represent *that shades b and b' differ* with much more "phenomenal force" than you represent *that shades a and b differ*. This is so even though the perceived shades *b* and *b' barely differ* while *a* and *b differ greatly*. Or take a simpler example: suppose you look at a tomato on a table right before you. Could you experientially represent exactly the same bright color, bulgy shape, and other details, but with much less "phenomenal force" than you actually do? The problem is that it is hard to get a grip on these hypothetical experiences. How would the character of the hypothetical experiences differ from the character of your actual experiences? But if you could not have such experiences, the proponent of the degreed representationalism needs to explain why not.

So degreed representationalism faces a challenge. It remains unclear how to explain the degrees of our immediate experience-based reasons.

One last point. Dogmatism says that experientially representing plays a reason-grounding role: experientially representing a state of affairs grounds your having an immediate reason to believe that the state of affairs obtains. David Lewis (1994: 427–429) has defended another idea: a "reasons-responsive theory" of belief, according to which beliefs are essentially responsive to reasons. The reason-grounding role of experiential representation, together with a reasons-responsive theory of belief, would

explain the cognitive-access role of experiential representation (which was part of our formulation of the representational view in Section 3.1): if you experientially represent a state of affairs, you automatically have a capacity to believe that the state of affairs obtains. In fact, these ideas together entail

Discussion Box: Knowledge-first rather than experience-first?

The dogmatist view of the source of our reasons for perceptual beliefs is an *experience-based*, or *experience-first*, view. When you view a tomato, you know that there is a red and round thing there because you first have good-enough reason to believe it – a reason provided by your experience. The picture, then, is this: experience → reasons → knowledge. Recently a quite different, *knowledge-first* picture has become popular (Williamson 2000: 198–199; 2005: 468–470). (For an intermediate view see Schellenberg 2018.) On this view, when you have the experience, you first immediately know that there is a red and round thing there: you just *see* that there is such a thing. Because you know that there is such a thing there, you have a really good reason to believe it. The picture, then, is this: experience → knowledge → reasons. Further, on this approach, knowing things comes easy: roughly, it just requires having beliefs that are in fact reliably (safely) true. Given this standard, we know a lot; skepticism is avoided.

Representationalists could go in for the knowledge-first view rather than the dogmatist, experience-first view. However, it faces a problem. It seems that your reasons are more closely connected to your experiences than to what you know. We can illustrate this with a science-fiction example of a "seamless transition". (Johnston 2004 introduced this example to illustrate a different point.) Suppose that you go into a dining room and scientists in control of your brain cause you to hallucinate a tomato on a table. However, you have no idea; to you, everything is normal, and from the start you're convinced a tomato is there. Then your hallucination stops, but at the same time a tomato is placed on the table, so that (unknown to you) your belief that a red and round thing is there goes from being false to being safely true. Imagine that your hallucination and your "veridical" experience are indistinguishable and the transition between them is seamless. Now, according to the knowledge-first view, though your tomato-experience doesn't change at all in character, at the transition point, you go from being deceived to *knowing* that a red and round thing is there. So the knowledge-first view implies that, at first, you have little or no reason to believe a red and round thing is there; then, at the transition point, you suddenly have extremely strong (indeed conclusive) reason to believe this. So (although you don't know it) at the transition point you should increase your confidence. This is so even though you have the same vivid experience as of a red and round thing throughout and have no idea anything is amiss. The dogmatist, experience-first view avoids these odd implications of the knowledge-first view. On this view, having the reason just requires having the experience. Since your experience remains the same throughout the process, this view delivers the intuitively correct verdict that throughout the process (even when hallucinating) you have the *same reason* to believe that a red and round thing is present (Pautz 2016: 923; Smithies 2019: 99).

that, if you experientially represent a state of affairs, then you automatically have a disposition to believe that the state of affairs obtains. For instance, if your experientially representing that there is a reddish and round thing before you grounds your having a strong reason to believe that there is such a thing there (dogmatism), and if beliefs are essentially responsive to reasons (a reasons-responsive theory of belief), then your experientially representing a reddish and round thing is before you will necessarily dispose you to believe that there is such a thing there. This result is somewhat plausible (Smith 2001; Byrne 2009).[11]

3.6 Does the representational view explain perceptual presence?

The argument for the representational view is that it best explains the central facts about experience. But some have said that one thing the representational view doesn't explain is "perceptual presence". Here John Campbell pressing this objection:

> The color red itself is there in a visual experience of redness ... The presence of the color red in a visual experience of redness is hard to explain on any view that takes your color experience to be a matter of your representing the colors in experience.
>
> (Campbell 2020: 406)

But what does Campbell mean when he says that "the color red itself is there in a visual experience of redness"? (See also Levine 2019: 295–296.) We need to understand what this idea means before we can ask whether representationalists can accommodate it.

On one interpretation, he means that, in any visual experience of redness, a red object is actually present, and you experience it.

But, on this strong interpretation, the claim is false, and therefore no threat to the representational view. It is false because it requires a red sense datum in a hallucination. For suppose Buddy Burmester hallucinates a red flower. He then has "a visual experience of redness". But no red and flower-shaped physical object is present. So if a red and flower-shaped object is present, it would have to be a mysterious non-physical "sense datum" in a private mental space. But in Chapter 1 we saw that the sense datum theory of hallucination faces serious problems. Campbell himself rejects it (see Section 5.5). Instead, the right thing to say that, in his visual experience of

redness, it merely vividly seems to Buddy that a red object is present right there.

This naturally suggests a retreat to a weaker interpretation of Campbell's claim that "the color red itself is there in a visual experience of redness". Maybe he only means that, in any visual experience of redness, it vividly seems that a red object is actually present then and there. In fact, elsewhere Campbell himself opts for this weaker formulation: "redness itself *seems to be* present in an experience of redness" (Campbell 2016: 112; my italics).

On this weak "seems" interpretation, Campbell's presence claim may be true – hallucination and illusion are no longer counterexamples. But it is certainly no threat to the representational view. In fact, we saw in Section 3.1 that the representational view could be formulated in terms of the idiom of "experientially seems" instead of "experientially represents". So, truth be told, it doesn't go far beyond the claim that to experience red is for it to vividly seem to you that a red object is present. Therefore, it can hardly be at odds with that claim.[12]

Let's briefly consider another objection to the representational view in the same vicinity that does not use the obscure notion of "presentation". Campbell (2016: 112; 2020: 407) often notes that experiences are just *fundamentally different* from standard representational states. He mentions beliefs (e.g., the belief a red thing is in the next room) and the unconscious representations of individuals with "blindsight" (for details see Weiskrantz 1986). The objection is that the representational view does not accommodate this "fundamental difference" claim, because the representational view holds that experiences are representational states akin to beliefs and other representational states.

But representationalists can respect the "fundamental difference" claim a way that parallels the way in which naïve realists like Campbell do so.

Naïve realists (like sense datum theorists) hold that there is a special experiencing relation; having experiences consists in bearing this relation to *things* (Chapters 1 and 5). According to them, this relation is fundamentally different from the believing relation and any mere "causal detection" relations a blindsight individual bears to objects in their blind field. There is no other relationship like it in nature.

There is no reason why representationalists cannot say similar things. In particular, they hold that there is a special experience relation that we bear to *ways things might be*; having experiences consists in bearing this relation to ways thing might be. True, they often call it "experientially representing", and this may suggest that it is similar to the kind of representing that is

done by beliefs and by blindsight subjects. But you shouldn't be misled by the label. Representationalists could also call it "experientially seeming", and entirely refrain from using "representation" in describing their view. (Indeed, the Ramsey-Lewis formulation in Section 3.1 totally eliminates the distracting term "representation".) And they can say that the relevant relation is fundamentally different from the belief relation and any mere causal detection relation a blindsight individual bears to objects in their blind field.

In this way, on the representational view as well as on naïve realism, experiences are fundamentally different from beliefs and unconscious representations in blindsight (for more on this see Section 5.4).

3.7 Is the representational view intrinsically implausible?

Our final formulation of the representational view in Section 3.1 appealed to *properties*, or "ways things might be". Properties are "abstract items". For instance, to have the flower-experience is to experientially represent the properties of being f_{17} and being purple_{42}. When Buddy hallucinates, these properties aren't located or instantiated before him. I also noted that the representational view could be formulated in terms of *states of affairs* that can obtain or fail to obtain. These, too, are abstract items. These are forms of *abstract-items representationalism* (Bourget 2019).

You might find abstract-items representationalism intrinsically implausible on the face of it. How can the flower-experience – an experience in which it vividly seems that an extended object is *right there* – consist in nothing but standing in a mental relationship to a complex of properties – abstract items that don't take up space, may have no location, and cannot be seen? Isn't that an obviously absurd identification – like identifying the color red with the number two? This would undercut the best explanation argument for the representational view developed in Section 3.2.

On one way of developing this objection, it depends on a more general claim, namely *concretism* about experience: the definition of what it is to have the flower-experience will only mention concrete items. No abstract items – such as properties or possible states of affairs – enter into the constitution of experience. Maybe *believing* is a relationship to concepts and propositions that are abstract. But that can't be right for experiencing. Experiencing is a wholly here-and-now, concrete affair, involving you (a concrete thing) and concrete things in your brain or immediate environment. Most views respect this: naïve realism, the sense datum theory (sense data are

concrete even if mental), the internal physical state view. But abstract-items representationalism does not.[13]

Representationalists can dodge this form of the objection. Although I formulated the representational view in terms of abstract items, it can also be formulated without mention of abstract items. We can simply formulate the representational view as the view that for Buddy to have a flower-like experience is for him to experientially represent that something is flower-shaped and purple. That is, for Buddy to have his experience is for it to experientially seem to him that there is such a thing. This doesn't say that for him to have this experience is for him to be related to properties, abstract "ways thing might be". True, it uses the expressions "is flower-shaped" and "is purple". But, as Quine (1948) pointed out, such expressions can be meaningful without having to refer to special abstract items, "properties", that exist separately from things. In fact, this form of the representational view might be combined with the "ontological" claim that *only* concrete things exist. Call it *concrete representationalism* (see Prior 1968: 93; Perkins and Bayne 2013: 73). Opponents of the representational view cannot object to concrete representationalism on the grounds that "I find it difficult to understand the claim abstract items should enter into the constitution of experience" (Papineau 2016: 317). For concrete representationalists reject this claim. In fact, they reject abstract items in general.

However, you might even find concrete representationalism intrinsically implausible. In fact, you might go further: as we discussed in Chapter 1, in the past, philosophers such as Price (1932) insisted that the only view that is intrinsically plausible is an across-the-board act-object theory. It's just obvious that to have the flower-experience, in both normal cases and hallucination cases, is to experience the purple color and flower-shape of some actually existing object. Nothing less will do. Since the representational view denies the act-object theory, it cannot be right. In this form, the objection from intrinsic implausibility becomes a strong form of the objection from "perceptual presence" discussed in the previous section.

Do considerations of "intrinsic plausibility" strongly support rejecting the representational view in favor of some alternative?

Let's start with the question of whether intrinsic plausibility supports an across-the-board act-object view (Chapter 1) over the representational view. I think it must be admitted that it provides *some* support for an across-the-board act-object view. But step 2 of the best explanation argument

(Section 3.2) noted that there are countervailing arguments against an across-the-board act-object view and for the representational view concerning perceptual imprecision and incompleteness in hallucination.

Turn next to the question of whether intrinsic plausibility supports the internal physical state view (Chapter 2) over the representational view. The problem is that this view (Papineau 2014, 2016) is not more "intrinsically plausible" than the representational view. It is not at all plausible that having an experience with technicolor phenomenology consists in nothing but undergoing an internal physical-computational state realized in soggy grey matter in the brain. In fact, it may be *less* "intrinsically plausible" than the representational view, since (as we saw in Chapter 2) it denies the externally directed character of visual experience whereas the representational view accommodates it.

In Chapter 5, we will see that some contemporary naïve realists give a "negative" theory of hallucination on which the presence of phenomenology in hallucination is constituted by the *lack* of a certain ability – namely, the ability to tell your situation apart from one of seeing. This is not more "intrinsically plausible" than the representational view.

In sum, considerations of intrinsic plausibility do not seem to strongly support rejecting the representational view in favor of any alternative since the alternatives are intrinsically implausible in their own ways.

3.8 Can the representational view explain the laws of appearance?

Representationalists hold that experiences are representational states. In that respect, they are like beliefs. But there is a big difference. There are few if any restrictions on the weird *beliefs* people can have. Philosophers nicely illustrate the point. For instance, some philosophers – "Meinongians" – believe that there are round squares and things that are pure red and pure green all over but you just cannot interact with them. By contrast, there seem to be some restrictions on what *experiences* people can have. We can call them *laws of appearance*.

For example, you can experientially represent a surface as pure red. And you can experientially represent a different surface as pure green. Could you experientially represent the *same* surface as both pure red and pure green at the same time? Given the representational view, this would mean that your experience of the same region would at the same time have a "pure reddish" character and a "pure greenish" character. It seems to be a

law of appearance that no such experience is possible. Likewise, it is a law of appearance that you cannot experientially represent the same object as round and square. So we have:

> **Exclusion law.** An individual cannot experientially represent that a single surface has two distinct pure colors, such as pure red and pure green. Likewise, an individual cannot experientially represent that the same object has distinct shapes, such as round and square.

Although I will focus on the exclusion law in what follows, there are many such laws:

> **Berkeley's law.** (1) An individual cannot experientially represent that something has a color without also experientially representing that it takes up space in some way. (2) Conversely, an individual cannot experientially represent that something takes up space in some way (e.g., being circular) without also experientially representing a qualitative difference (e.g., a *white* circle on a *black* background). See Berkeley (1713: 7).
>
> **No logical structure.** For example, an individual cannot experientially represent merely *that there is either a red square in front or a green sphere on the right*, without experientially representing anything more specific. What would that be like?
>
> **No radical incompleteness.** We have seen that experiences can be imprecise and incomplete. One of the virtues of the representational view is that it explains this (Section 3.2). But there are limits. For instance, an individual cannot merely experientially represent *that there is something in front of me that takes up space*, without experientially representing anything more specific.
>
> **Perspectival law.** An individual cannot experientially represent merely *that there is a cube somewhere in reality*, without any "perspectival content" about its location and apparent shape from "here".
>
> **Property restriction.** An individual cannot *experientially* represent merely abstract properties or state of affairs, such as *justice is a virtue*, or *the republicans will win the election*. Such things can be represented in thought but they are not perceivable.

Now we can all agree that these laws (or some of them) are generally true. However, there is a question about their "strength". There are two options. One option is *necessitism*: at least *some* of the laws of appearance are *metaphysically necessary* truths about experiences. This means that they are necessary in the strongest possible sense. They would be true no matter what else happens. It's not just that they are true of humans' actual experiences;

they are true of the experiences of *any possible creature*. In this regard, they are like truths of mathematics. A second option is *contingentism*: all the laws of appearance are *contingent laws*, where *contingent* means "true but not metaphysically necessary". They might be false for other possible creatures' experiences.

Should representationalists accept necessitism or contingentism about the laws of appearance? Either way, they face problems.

First, necessitism. Maybe some of the laws of appearance are contingent laws about human experience and could fail for other possible creatures, although it is very hard to imagine such failures. However, there is good reason to think that at least some of them are metaphysically necessary. For instance, it is "intrinsically plausible" that the exclusion law is metaphysically necessary. No possible individual could experientially represent the same object as round and square. For, given the representational view, this would require that an individual have an experience of an object that has both a round-character and a square-character. And this is not possible. In the absence of sufficiently strong countervailing arguments, we should accept that the exclusion law is metaphysically necessary.

If some laws of appearance are metaphysically necessary, we want to know *why*. Why cannot they be violated in any possible experiencer? If people can believe that there are round squares, why cannot they have experiences as of round squares? It would be nice to have some kind of systematic, simple explanation here.

But representationalists have special difficulty with providing such an explanation. This threatens the best explanation argument for the representational view developed in Section 3.2. To appreciate the difficulty, contrast the representational view with the sense datum view (Chapter 1). On the sense datum view, if it visually appears to someone that something is F, then there must exist in reality a sense datum that is F. So if nothing – not even a sense datum – can be round and square, then we have an explanation of why it can never visually appear that something is round and square. The exclusion law poses no problem for the sense datum view. But representationalists reject the sense datum view and accept existence-neutrality. So they cannot accept this attractive explanation of the metaphysical necessity of the exclusion law. They hold that, if your brain on the blink, you can hallucinate a flower-shaped thing, even if there exists no flower-shaped thing. So why not a round and square thing?

At this point, representationalists might look for an explanation in terms of the "iconic" or "analog" format of experiential representation in the

human brain (Lycan 2019b; Tye 2020). This idea deserves a detailed discussion. But, briefly, such an explanation seems unlikely for a general reason. When you view a moving blue thing, your hidden, subpersonal neural representations of color and movement, which might be located in separate brain areas, are "bound" together, where this is some kind of functional-computational relation. Why couldn't there be possible experiencers whose subpersonal representations of distinct colors (or distinct shapes) could be "bound together" in this way, just as our subpersonal representations of color and motion can be bound together? So if we only look at the neural states and processes underlying our experiences, we cannot explain why it is metaphysically impossible that an individual should experientially represent distinct colors (or distinct shapes) as bound together.

In view of the difficulties with explaining why the laws of appearance should be metaphysically necessary, representationalists may turn to the contingentist option: *all* of them are merely contingent rather than metaphysically necessary. For instance, Ned Block (2020) says "my view is that [the above-listed] 'laws' are not [metaphysically necessary] truths." And Jeff Speaks (2017: 495) says "I am tempted to doubt whether the laws of perception really are (metaphysically) necessary." On this view, all of the laws of appearance could be violated in hypothetical individuals whose visual systems work differently. True, we cannot imagine what it would be like. But there are possible experiences we cannot imagine.

If contingentism is right for all the laws of appearance, then they pose no serious problem for the representational view. Necessitism sets a very high bar: it means that there must be explanations of why the laws hold in all possible individuals. By contrast, Contingentism would mean there only need to be explanations of why they hold in actual humans. And we know in advance that there must be some such explanations – presumably, neurocomputational explanations.

Now there is reason to accept contingentism about *some* of the above laws of appearance. For instance, although Berkeley's law is generally true, there is some reason to think it is violated by the experiences of a particular brain-damaged patient called "MS" (see Kentridge *et al.* 2004).

The problem is that representationalists cannot plausibly maintain contingentism when it comes to other laws of appearance. Take the exclusion law. As I said above, it's plausibly metaphysically necessary that no individual should experientially represent that something is round and square, just as it is metaphysically necessary that no object should actually be round and square. Unlike in the case of Berkeley's law, we have no reason to

believe that there are actual cases where it is violated.[14] True, we cannot now explain the exclusion law. But there are many metaphysical necessities we cannot currently explain in more basic terms. In this situation, it may not be reasonable to outright assert it's possible that an individual should experientially represent that something is round and square.

In sum, representationalists have reason to think that at least some laws of appearance are metaphysically necessary. But so far we have no explanation of why this should be so.

Finally, let us consider a radical solution to this puzzle. It involves giving up the representational view as formulated in Section 3.1 and moving to a quite different view that I will call *sensa representationalism*.

To understand sensa representationalism, you first need to understand the idea of an *ontologically dependent* entity. Consider the holes in a piece of Swiss cheese. They exist by virtue of the fact that there exists a "hole host" (the piece of cheese) with hollowed-out parts. They couldn't exist on their own. Or consider fictional individuals like Sherlock Holmes and Madame Bovary. They exist by virtue of the representational activities of authors (Thomasson 1999).

Likewise, sensa representationalism posits ontologically dependent entities we will call *sensa*. It holds that, in general, if someone experientially represents that something is F, then this experience grounds the coming-into-existence of a sensum that really is F. That is the only way for a sensum to come into existence. Thus, if you should have a hallucination of a tomato in which you experientially represent that something before you is reddish and round, this brings into existence a red and round sensum. This sensum is "present to your mind". Even when you see a real tomato, your experience brings into existence a red and round sensum that is distinct from the physical tomato. Thus, there is always a veil of sensa between you and the world. Sensa are ontologically dependent on experiences in the same way holes are ontologically dependent on hole-hosts.

Our original formulation of the representational view in Section 3.1 included a commitment to existence-neutrality. By contrast, sensa representationalism is a form of *actualism:* when you experientially represent the world to be a certain way, there is an actual sensum that is that way. In this way it resembles the sense datum view (Chapter 1). But it also differs from the sense datum view. The sense datum view holds that sense data are among the fundamental elements of reality. By contrast, sensa representationalism holds that sensa "come for free" with the right kinds of experiences, somewhat as holes "come for free" with the right arrangements of matter.

Sensa representationalism may seem strange. But it might explain the metaphysical necessity of the exclusion law. For example, why is it metaphysically necessary that no one should experientially represent that something is round and square? Because, given sensa representationalism, this would require the coming-into-existence of a sensum that is round and square. But nothing – not even a "sensum" – could be round and square.

As a bonus, sensa representationalism would provide a novel answer to the objection from perceptual presence that we discussed in Section 3.6. For, on this form of the representational view, experience is essentially presentational as well as essentially representational. In this way, experience is fundamentally different from other representational states such as beliefs.

In any case, there are two problems with the idea that sensa representationalism might solve the puzzle of the laws of appearance. First, although it may explain the metaphysical necessity of the exclusion law, it is not clear whether it explains the metaphysical necessity of all the other laws of appearance.

Second, the explanation of the exclusion law offered by sensa representationalism depends on the claim that a sensum cannot be round and square. But it's not clear whether sensum representationalists are entitled to this claim. After all, sensa would need to be very peculiar – just like the sense data of the traditional sense datum view. For instance, if you experientially represent that there is something in the periphery of your visual field that is located in a certain region but there no specific location that you experientially represent it to be in, then there must exist a sensum with the property *having a location in rough region r* and also the property *not having any specific location in r* (see Section 1.11). But those properties are intuitively incompatible. Once we have gone this far, why cannot there exist a sensum that has the property *being round* and the property *being square*, even though those properties are intuitively incompatible? Why draw the line there?

The puzzle of the laws of appearance poses a serious unresolved challenge to the representational view.

Summary

The lessons of our first two chapters led naturally to the representationalist explanation of essential external directedness that was the topic of the present chapter. First of all, unlike the internal physical state view

(Chapter 2), the representational view allows us to accept that experiences essentially enable us to grasp external ways things might be, like *flower-shaped*. Second, unlike the sense datum view (Chapter 1), the representational view allows us to say that experiences essentially enable us to grasp ways things might be, even if we do not perceive any objects ("sense data") that really are those ways. In this chapter, we have focused on the basic idea.

But an important task remains. To show that the representational view can fully solve the puzzle of perception, we must not only show that it can accommodate essential external directedness; we must show that it can accommodate "internal dependence", the fact that the brain plays a big role in determining how things appear. How does the brain enable us to experientially represent the world at all, and how does it enable us to represent the world as filled with specific sensible properties, like sensible colors, audible properties, smell properties, and so on? This will be the subject of Chapter 4.

Further Reading

Important sources for the representational view include Armstrong (1968, 1981), Bealer (1982), Hintikka (1969), and Anscombe (1965). The "multiple relation theory" broached by Moore (1918: 23–25) can be seen as an early version. For more on the multiple relation theory see Chapter 5.

More recent defenses include Byrne (2009), Chalmers (2010), Dretske (1995), Hill (2009), Horgan (2014), Jackson (2004), Lycan (2019a), Mendelovici (2018), Speaks (2015), and Tye (1995). Schellenberg (2018) defends a novel form of the representational view based on capacities of discrimination.

For discussion of the laws of appearance, see Speaks (2017), Lycan (2019b), Tye (2020), Block 2020, Duncan 2020, and Green 2020.

Much of the philosophy of perception focuses on experiences of static objects, such as the purple flower discussed in this chapter. But, of course, the perceptual world is filled with change. For discussion of how representationalists might explain this, see Lee (2014, 2017) and Dainton (2018).

Another issue we were not able to discuss is how representationalists might account for how our experiences of objects' spatial properties change (and yet remain the same) due to changes in perspective. See Hill (2009), McLaughlin (2016b), Schellenberg (2018), Green and Schellenberg (2018), and Green 2020.

Notes

1 See Speaks (2017: 492–493) for a discussion of this way of clarifying the representational view and debates about the representational content of experience.

2 Travis (2004: 85, 92) and Brewer (2017: sect. 2.3) object to the representational view on the grounds that it requires – what they think cannot be supplied – a general algorithm (e.g., in terms of "looks"-reports or in terms of underlying facts about causal-covariation) for determining the representational content of any given experience. Against this, the availability of the present Ramsey-Lewis formulation of the representational view shows that talk of the representational content of experience can be perfectly intelligible even in the absence of such an algorithm.

3 For defenses of various forms of the representational view, see, for example, Armstrong (1968), Bealer (1982), Byrne (2009), Chalmers (2010), Dretske (1995), Hill (2009), Horgan (2014), Jackson (2004), Lycan (2019a), Mendelovici (2018), Schellenberg (2018), Speaks (2015), and Tye (1995).

4 For an argument for the representational view based on transparency, see Tye (2000: chap. 3). For problems with transparency, see Section 2.3 of this book. For an argument based on "seems", see Byrne (2001). For problems with Byrne's argument, see Byrne (2001: 225–226), van Cleve (2015: 469), and Lycan (2019b: sect. 3.4). For different forms of the "best explanation" argument, see Byrne (2009) and Pautz (2010a).

5 Here we are saying that it is a virtue of the representational view that it predicts and explains perceptual imprecision. However, it must be noted that Block (2015) gives a complex argument for the opposite claim: that the representational view cannot adequately accommodate perceptual imprecision.

6 For discussion related to step 1, see Russell (1912a: chap. X), Johnston (2004: 130–131), Hellie (2010: fn.5), Brewer (2011: 112–113), Alford-Duguid and Arsenault (2017), Gupta (2019: 175–177), and Tye (2019).

7 Speaks (2015: 177–188) argues on the basis of cross-modal binding that the relevant relation is the same across the board. See also O'Callaghan (2020a).

8 See Green (2016) for other examples of "gestalt switches" and how representationalists might explain them.

9 There is another potential problem for a form of the "rich" view that holds that the visual system enables us to experientially represent "high-level" properties like *being a pine tree* or *being a computer,* in addition to more basic visible properties. In particular, the claim that we experientially represent such fancy properties may be at odds with plausible general theories of *how* we experientially represent properties. See Green (2017) for discussion.

10 For this epistemological puzzle, see Pautz (2016) and Munton (2016). For related discussion, see Morrison (2016).

11 Suppose that we define "having a concept of *F*" as "having the ability to think that something is *F*". In that case, the claim arrived at in the text – that an experience that something is *F entails* the ability and indeed the disposition to believe that the thing is *F* (e.g., red, round) – amounts to a form of "conceptualism" about experience on which having such an experience requires "having a concept of *F*" (Speaks 2020). It is worth noting that conceptualism about experience in this sense is quite consistent with the empiricist idea that experience *explains* our having certain concepts. Speaks (2020: 64) puts this well when he asks, "why should the fact that something *entails* an ability be inconsistent with its *explaining* that ability?" Speaks helps to clear up many ambiguities and confusions in the debate over "conceptualism" about experience.

12 Papineau (2016: 336–337) raises a different objection from Campbell's. He suggests that representationalists are committed to a *false* claim about perceptual presence, namely, that in a hallucination of redness, you are "presented with" (i.e., aware of) the free-floating, abstract universal *redness* even if nothing in your vicinity is actually red. But, while some few representationalists accept this peculiar claim (e.g., Dretske 2003 and Tye 2019), most representationalists do not. Most hold that in hallucination there exists *nothing* you are aware of or "presented with", as we discussed in Section 3.1. It only seems that you are presented with something (Pautz 2007).

13 For this kind of objection to the representational view, see Pautz (2010a: 293ff), Kriegel (2011: 141ff), Papineau (2014, 2016), Mendelovici (2018: chap. 9), Langsam (2018), and Sundström (2018). Papineau (in forthcoming work) argues for concretism and against the representational view on the grounds that experiences are "causes and effects", which he thinks is at odds with the representational view. For replies to this general type of problem, see Schiffer (2003: 333ff) and Dretske (1995: 151ff).

14 One might think that, in the waterfall illusion (Section 3.2), you experientially represent the impossible state of affairs *that a black rock moves and stands still*. If you can experientially represent *some* metaphysically impossible states of affairs, shouldn't it be possible in principle that some perceiver should experientially represent others, for instance, *that something is round and square*, in agreement with contingentism? But, on one natural account of the waterfall illusion, what you experientially represent is *that a black rock is remaining in the same place and something in the vicinity is moving upward*, which is not impossible. There are also plausible accounts of the experiences of "impossible figures" on which their contents are not in fact impossible (Bayne 2010: 53–58).

4

HOW DOES EXPERIENCE REPRESENT THE WORLD?

Acquaintance with a property involves standing in a certain representational relation to the property; the externalist claims that the relevant relation brings in external conditions.

—Michael Tye (2009)

There are cases in which representing a property crucially depends on causal contact with external instances of it, but there are also many cases of representation that do not work like this.

—David Chalmers (2010)

On the representational view of experience, for you to have an experience of a blue sphere is for you to "experientially represent" (that is, for it to experientially seem to you) that something has the properties *being bluish*, *being round*, and *being in front of oneself*. Likewise, having an olfactory experience of mint is just a matter of experientially representing the co-occurrence of the properties *being minty* and *being in a certain diffuse region in front of oneself*. Even bodily sensations like pain represent qualities as occurring in bodily regions. In illusion and hallucination, the way you experientially represent the world to be (the way it experientially seems to be) doesn't correspond to the way it really is.