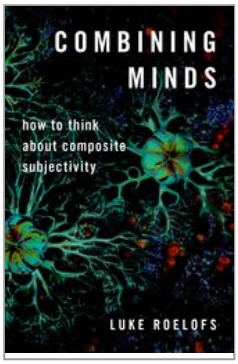

Combining Minds: How to Think about Composite Subjectivity
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The Problems of Structural Discrepancy

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Abstract and Keywords

This chapter considers a particular set of combination problems facing panpsychism, based on the apparent structural discrepancy between human consciousness and the microphysical structure of the brain. These problems have been termed the revelation problem, the palette problem, and the mismatch problem, and this chapter seeks to resolve them by developing a series of connected hypotheses about how phenomenal qualities combine and blend based on informational relations among them: the radical confusion hypothesis, the small palette hypothesis, and the informational structure hypothesis. These hypotheses are also shown to be compatible with moderate versions of the revelation thesis, the idea that by undergoing experience we are acquainted with the nature of experience.

Keywords: panpsychism, combination problem, phenomenal qualities, revelation thesis, palette problem, revelation problem, mismatch problem

CHAPTER 3 OUTLINED panpsychist combinationism, a combinationist panpsychist theory on which every fundamental physical thing is conscious, the fundamental physical relations unify their experiences, and composites inherit consciousness from their parts. I tried to defend this theory against the fundamental internal problems for combinationism discussed in chapter 2, but it needs defending also against a cluster of “bridging problems,” which do not apply to all combinationist theories but only to panpsychist ones.

These problems stem from the apparent discrepancy between the structure of microphysics and the structure of human consciousness, a discrepancy that

seems to tell against identifying our brain processes with our consciousness. Here is a representative statement of this supposed discrepancy from Maxwell (1979, 398):

> How is it that the occurrence of a smooth, continuous expanse of red in our visual experience can . . . involve particulate, discontinuous affairs such as transfers of or interactions among large numbers of electrons, ions, or the like? Surely being smooth or continuous is a *structural* property, and being **(p.122)** particulate or discontinuous is also a structural property . . . incompatible with being smooth and continuous.

For a more detailed statement, I am indebted to Lockwood (1993), who distinguishes three specific strands of the problem:

- Our experience is relatively *coarse-grained*, while any plausible composite basis is very *fine-grained*.
- Our experience is *qualitatively diverse*, while any plausible composite basis has only a *few qualitative ingredients*.
- The *type* of structure found in experience "seems not to match, even in coarse-grained fashion, that of the underlying physiology." (274)

Following Chalmers (2017), I will call these the "revelation problem" (190): how does fine-grained structure *disappear* from the whole's perspective; the "palette problem" (189): how does qualitative diversity *appear* in the whole's perspective; and the "mismatch problem" (191): why do the *types* of structure diverge?

Let me say a bit more to convey the force of these problems. The revelation problem concerns the apparent absence from our experience of the sheer degree of detail that physics tells us is present in our brains. Consider someone smelling a simple odor or hearing an unchanging pure tone. From the subject's point of view, these events may appear pure and structureless, but we know that they arise from the simultaneous activity of a great number of different neurons, each with billions of billions of parts. So we may wonder, "How do all these microstructural discontinuities and inhomogeneities come to be glossed over?" (Lockwood 1993, 274). This problem is particularly pressing for panpsychists because they usually think that undergoing an experience provides at least some direct insight into its nature; physicalists who think experience is a superficial feature of reality, or even an illusion, need not be so worried. But panpsychists seem committed to the thought that if our experience really is immensely fine-grained, then that richness "couldn't help but be manifest to consciousness" (Coleman 2012, 144).

To set up the palette problem, I will quote again from Lockwood (1993, 276):

> There is nothing qualitatively distinctive about a neuron in the auditory cortex, or the corresponding action potential, to mark it out from a neuron, or the firing of a neuron, in the visual cortex. So how, on this basis, is one to account, say, for the fundamental phenomenological difference between a sound and a flash? . . . It seems inconceivable in much the same way, and **(p.123)** for much the same reasons, that it is inconceivable that an artist, however skilled, should conjure the simulacrum of a Turner sunset from a palette containing only black and white paints.

Consciousness seems qualitatively rich, but any structure isomorphic with the physical brain would be qualitatively homogeneous, with the same basic ingredients present throughout, albeit in varied structures. Combinationists must explain how the diversity of qualities we experience arises from the qualities experienced by our smallest parts.

The mismatch problem is expressed by Chalmers (2017, 183) thus:

> Our macroexperience has a rich structure, involving the complex spatial structure of visual and auditory fields, a division into many different modalities, and so on. . . . Macrophysical structure (in the brain, say) seems entirely different. . . . Microexperiences presumably have structure closely corresponding to microphysical structure, and we might expect a combination of them to yield something akin to macrophysical structure. How do these combine to yield macrophenomenal structure instead?

Consider, for instance, that the division of the human brain into two hemispheres is a very noticeable feature of its physical structure, but this large-scale feature seems not to show up in consciousness at all and was discovered not by introspection but by visually inspecting human brains. By contrast, the division of consciousness into distinct sensory modalities is vividly obvious from the inside but very hard to discern from an outside inspection of the brain. This last problem is the most open-ended, since it touches on all the particular structures we find in consciousness. It will not be fully addressed in this chapter: rather, I will attempt here to show how, in general, panpsychist combinationism allows for conscious structure to match information-processing structure rather than gross physical structure. In the next chapter I explore in more detail the specifics of conscious structure.

4.1. Enriching Panpsychist Combinationism

The problems of structural discrepancy, and in particular the revelation problem, seem very forceful if we allow ourselves to assume that experiences of what I will call “phenomenal contrast,” where we are presented with two distinct elements that each present themselves as not-the-other, is the default and automatic **(p.124)** consequence of inheriting two distinct experiences from

different parts of ourselves. By rejecting this assumption, we can make the problems much more tractable.

4.1.1. Phenomenal Contrast and Phenomenal Blending

Consider the experience of seeing a red patch next to a yellow patch. Not only are you experiencing red, and experiencing yellow, and experiencing them together—you are also experiencing them as two distinct things. This feature of your experience is what I am calling "phenomenal contrast," and it goes along with (but is not simply the same as) various cognitive abilities, to do things like focus on the red but not the yellow, judge how sharply they contrast with one another, remember each color distinctly so as to recognize each if you see it by itself elsewhere, and so on. Phenomenal contrast is a feature of the composite experience's phenomenal character, and it comes in many forms. (Compare the experiences of red above yellow, red below yellow, red on a yellow background, etc.) These are different ways to experience red and yellow together.

My claim is that not all ways to experience red and yellow together—i.e., not all composite experiences which subsume an experience of red and an experience of yellow—involve phenomenal contrast. Some present red and yellow to the subject, without presenting them as distinct, and thus without the subject's being able to attend to one or the other, to judge their contrast, to remember each individually, and so on. I will call these composite experiences "phenomenal blends" of red and yellow; their subjects experience red and yellow together in a blended way, not as two distinct things. Moreover, I cautiously suggest that sighted human beings sometimes undergo blended experiences of red and yellow when they experience the color orange, though this specific example is not essential to my case.

I suggest the possibility of blending as an *a priori* truth about the nature of experience. If blending is possible, then the metaphysical distinctness of two or more elements in human experience—the fact that they in fact arise from separate parts of that human being—need not correspond to their phenomenal distinctness, i.e., to the experience of phenomenal contrast.

More specifically, I suggest that whether a composite experience involves phenomenal blending or phenomenal contrast, and what sort of phenomenal contrast it involves, depends on the informational structure in which it is embedded, on the way its different elements relate to the rest of the subject of that composite experience. Experiences are blended, I claim, whenever they form a composite experience (i.e., are phenomenally unified), but the composite's subject is unable to recognize the presence of this complexity, to distinguish its elements, or to direct **(p.125)** attention onto one or the other of them. The elements are, I will say, "radically confused with one another" relative

to that subject. Phenomenal contrast between elements requires that information about those elements be separately accessible by their subject.

4.1.2. Three More Hypotheses

The final three claims of panpsychist combinationism address the problems of structural discrepancy by appeal to the above claims about the possibility of, and requirements for, blending and confusion.

> **Radical confusion hypothesis (RCH):** What makes human experience seem to be relatively coarse-grained is not an actual lack of fine-grained detail, but rather the fact that all of its component microexperiences are radically confused with one another.
>
> **Small palette hypothesis (SPH):** All the phenomenal qualities experienced by humans and other beings arise from blending different combinations of the small range of basic phenomenal qualities experienced by microsubjects.
>
> **Informational structure hypothesis (ISH):** The overall structure manifest in human consciousness corresponds to the structure of information-processing in the human brain, not to its gross physical structure.

The first two hypotheses are two sides of the same coin, describing a single process by which structural complexity in a composite experience is manifest to its subject as a particular quality rather than as a multiplicity of distinguishable elements. They thus aim to address the palette problem and the revelation problem together. A human brain inherits the vast array of experiences going on in its parts, but most of them are radically confused; this is why human experience seems so much less fine-grained than the brain's physical structure. But while the fine-grained details are not available for distinct awareness, they are preserved in the form of an increased diversity of qualities: phenomenal blending builds new qualities for experience to display, and thereby allows human brains to experience a range of qualities far outstripping those experienced by its microscopic parts.

For unified experiences not to blend, they must be distinguishable rather than confused. This requires that the system experiencing them have a capacity to respond to them differentially, to treat them as distinct. Fundamentally, this requires that information about them be separately accessible, that changes in one part have different effects on the rest of the system than changes in the other. There is a lot of this kind of information-processing in the nervous systems **(p.126)** of animals, and very little in inanimate objects (with the possible exception of computers). It follows that our best guess about the experience of ordinary inanimate objects—tables, chairs, rocks, sand grains—is that they have completely blended experiences: they experience many many things, but experience them as a single homogeneous quality.

The third hypothesis, ISH, then appeals to the confusion and distinguishability of different brain processes to address the mismatch problem. Consider, for instance, the fact that human experience is divided into distinct sensory modalities, some involving spatial fields like the visual field. It is a familiar fact that we cannot experience a phenomenal contrast between two different colors at the very same point in the visual field. To experience two colors at the same point seems to be possible only by experiencing them as a blend. The visual field is thus in a sense constructed out of possibilities of phenomenal contrast, with each point defined by the impossibility of such contrast at that point and the enforcement of blending. If I am right that phenomenal blending reflects confusion and phenomenal contrast reflects distinguishability, then the explanation of this structural feature of our consciousness will lie in informational structure, namely the pattern of systematic distinguishability and confusion.

Chapter 5 explores how informational structure determines conscious structure in more detail; in this chapter I focus on substantiating the claim that the radical confusion hypothesis and the small palette hypothesis solve the revelation problem and the palette problem, respectively. But first I need to lay out more precisely and more clearly the informational notions (confusion and distinguishability) that correspond to the phenomenal notions (blending and contrast) that I employ.

4.2. What Is Confusion?

I will explain the notion of radical confusion by first introducing a very broad notion of confusion, and then defining radical confusion as a specific variety. I take the label “confusion” from the early modern rationalists, some of whom faced their own versions of the revelation problem. In particular, Spinoza and Leibniz are both committed to the claim that every event occurring in the human body has a corresponding mental event in the human mind.[1] How is this fantastic level of mental detail to be reconciled with our apparent ignorance of the processes occurring in our bodies? For both authors, the solution appears to rest upon the idea of *confusion*: bodily sensations are always confused, and thus while the mind **(p.127)** perceives them in some sense, it is in another sense unaware of them.[2] Consider a famous passage from Leibniz (2012, 96):

> The perceptions of our senses even when they are clear must necessarily contain certain confused elements . . . [for] while our senses respond to everything, our soul cannot pay attention to every particular. . . . It is almost like the confused murmuring which is heard by those who approach the shore of a sea. It comes from the continual beatings of innumerable waves.

And here is one from Spinoza (1994, 140):

> The human body, being limited, is only capable of distinctly forming a certain number of images within itself at the same time. . . . If this number is exceeded, the images will begin to be confused, and if the number . . . is largely exceeded, they will all be completely confused with one another. . . . When the images become quite confused in the body, the mind also imagines all bodies confusedly without any distinction, and will comprehend them, as it were, under one attribute.

Both passages seem to present the same idea: the finite capacities of the human mind ensure that many of its ideas will be "confused" in that it will be unable to distinguish them. Michael Della Rocca (2008, 113) helpfully offers the following definition: "For Spinoza, an idea is confused when it represents . . . two separate things and yet the mind is unable to distinguish these things by having an idea that is just of one of the objects and an idea that is just of the other of the objects."

4.2.1. Varieties of Confusion

I define confusion thus: two mental elements are confused with each other, relative to a subject and a mental operation, when that subject can perform that mental operation on both at once, but not on either separately. They are distinguishable insofar as they are not confused. I intend the phrases "mental elements" and "mental operations" to cover any kind of mental thing which can be the object of any kind of mental process: the notion of confusion is neutral among different accounts of how the mind is organized. Prominent examples of mental operations might include "thinking" or "entertaining," "introspecting" or "being aware **(p.128)** of," "attending," "imagining," or "recognizing" in the sense of categorizing under concepts or of judging distinct from or identical with something else. Mental elements might be "experiences," "ideas," "contents," or "phenomenal qualities" understood as the things, awareness of which constitutes the having of an experience. In the primary instance these elements will be particulars, but we can easily define a secondary sense in which two types are confused for a subject when any particular instance of those types onto which a given subject could direct a given operation would be confused with an instance of the other type.[3]

Note also that since confusion is subject-relative, the same element might belong to both part and whole but be confused for one but not for the other. Indeed, for small enough parts confusion might disappear simply because the parts each experience only one thing, and can thus trivially be said to be able to "distinguish" it from what they are not experiencing. It follows also that phenomenal blending is subject-relative: when I experience red and yellow blended into orange, parts of me may experience the same yellow and red unblended.

Let us draw three distinctions among types of confusion. First, since confusion is relative to a mental operation, elements might be confused relative to *all* the mental operations a subject is capable of; call this “strong confusion,” and call the contrasting case, where elements are confused only relative to some operations, “weak confusion.” For instance, we might be unable to call to mind the flavor of coffee without at the same time calling to mind the bitterness of its taste, yet nevertheless be able to attend (and apply concepts, like “bitter”) to them separately. Then the experiences of flavor and bitterness would be confused relative to some mental operations (like “calling to mind”), but not relative to others (like “attending”), and so would be weakly, not strongly, confused.

Second, confusion may be symmetric or asymmetric. Suppose I can think of two things together, and think of the first without the second, but cannot think of the second without the first. Then there would be a sort of confusion involved regarding the one but not regarding the other: they are “asymmetrically confused.” For example, perhaps we can never experience certain bodily sensations (e.g., pain, itching, discomfort, or nausea) without also experiencing displeasure, and cannot even attend to the distinctive sensory element of the sensation without attending also to that displeasure. Nevertheless we can experience and think about displeasure independently of the sensory element; hence there are two distinct **(p.129)** elements present here which are asymmetrically confused relative to some mental operations.

Third, confusion may depend on circumstances. Someone who is tired, distracted, drunk, or having to respond quickly may be unable to distinguish things which they would be able to distinguish given better conditions: that is, their experiences may qualify as confused only relative to those circumstances. Confusion may also be relative to a subject’s conceptual repertoire; it might be that they cannot distinguish two ideas using their present concepts, but would be able to if they refined their concepts or learned new ones. Indeed, a common activity of philosophers is to claim to have identified a confusion of this sort in our everyday concepts, which requires the introduction of technical concepts to remove. Call confusion which can be removed by adjusting the subject’s bodily surroundings or condition, or improving their conceptual repertoire, or in some similarly mild way, “shallow confusion.” By contrast, call confusion which persists even into ideal conditions, “robust confusion.”

There is also an important intermediate case: confusion which persists until the subject becomes distinctly acquainted with an element of the same type as the confused elements. For example, suppose the sensory component of pain is robustly confused with the unpleasant affect pain involves, except for subjects who have experienced “pain asymbolia,” the rare condition of feeling pain without finding it at all unpleasant (cf. Grahek 2007; Klein 2015). If they regain normal pain experiences, they might find themselves newly able to attend to (or

imagine, recognize, etc.) its sensory element in isolation. If this were to happen, we might say that their original confusion was “nearly robust”: removable only by somehow acquainting them with (an instance of the same type as) one of the confused elements on its own.

I define “radical confusion” as confusion which is strong, symmetrical, and either robust or nearly robust. The radical confusion hypothesis says that the microexperiences we inherit from our smallest parts are all radically confused with one another in this sense.

4.2.2. Knowing about and Explaining Our Confusion

We can often tell that we are suffering from confusion, *if* that confusion is weak, asymmetric, or shallow. The easy way to identify shallow confusion is to remove it and contrast the resulting distinction with the earlier confusion. With robust confusion, that is impossible, but we might notice the confusion if it was only weak, for we would then be able to distinguish the elements in one fashion while noting our inability to do so in another fashion. For example, if we could not imagine **(p.130)** one sensation without another arising alongside it, but could still attend to the two separately (and go on to name and conceptualize them independently), the possibility of two attentive acts would be a sign of two mental elements. Finally, if confusion is asymmetrical, we can distinguish the confused pair from at least one element, and thereby infer the existence of a contrasting element which we cannot distinguish from the pair.

What if we suffered from confusion that was strong, symmetric, and robust? Lacking all three of the above means of recognizing confusion, we could not tell that we were confused. Similarly, if we suffered from confusion that was strong, symmetric, and nearly robust, it would be undetectable, except by means of independent acquaintance with elements of the same type as the confused ones: call such confusion “nearly undetectable.” Thus radical confusion will be either undetectable or nearly undetectable.[4]

According to the radical confusion hypothesis, all the experiences of our microparts are shared by us, but they are radically confused relative to us, which leads us to misinterpret them as coarse-grained. That is not to say that each microexperience is confused with every single other one, taken pairwise, but that each element is radically confused with a great many other elements.[5] But why?

The explanation for this confusion is provided by the simple fact that the human brain is not constructed so as to be able to individually register and distinguish all the trillions of events in its neurons, nor to direct attention onto them, report them verbally, encode them in memory, or otherwise access them. This lack of sensitivity to minute internal fluctuations is not surprising; any physically plausible mechanisms would display it. For two things to be distinguishable for a

(p.131) subject is for that subject to be able to direct mental acts onto them separately, which presupposes the capacity for mental acts like “attending to,” “reflecting on,” “inferring from,” “coming to believe,” etc. Plausibly, to count as performing any such activity on some item requires that facts about that item impact the other states of the subject. Differences in that item must make a difference to the rest of the system: the system must extract information about the item, must be receiving some sort of “signal” from it and be able to discern that signal from background noise. In a sense all the tiny parts of the brain send “signals” to the rest of the brain, through the chemical, electromagnetic, and even gravitational effects they have on their surroundings. But these signals will be very weak and stand out from background noise very little. Consequently, for small enough elements, the resources required to distinguish them are greater than the brain can muster, even under ideal circumstances, and hence they will be radically confused. To use a social analogy, it is hard for everyone in a room to hear everyone else, especially if some have weak voices. In a room of a trillion people, no individual’s voice would be distinctly audible, because the others would produce so much noise (both literal and statistical), even though their voice is part of the audible roar.

Phenomenal blending involves radical confusion together with phenomenal unity. In at least some cases the confusion among ingredients is only *nearly* robust, and the same experience types occur separately on other occasions; this is what allowed us to grasp the blending relation, by comparison of qualities like red, yellow, and orange. Note that in cases like this it is particular instances, not types, that are confused: “reddish experience” and “yellowish experience,” as types, are not confused at all, for a normal human, but when they have an orangish experience they have reddish and yellowish experiences which are radically confused with one another, and which they would not be able to distinguish at all had they never experienced red or yellow separately.

So, to sum up: when the components of an experience are distinguishable by the subject, they are phenomenally presented as discernible, separate, parts—in an experience of phenomenal contrast. Their subject has an impression of their multiplicity. When they are radically confused, by contrast, they are present qualitatively, as contributions to the total quality of the experience they blend into, which can only be grasped as distinct by a subject who already knows what to look for. A subject who lacks any distinct acquaintance with the ingredients will not be able to distinguish the elements, and they may as a result misinterpret their experience as lacking any such elements. That is, they may mistake the lack of any impression of multiplicity for a positive impression of simplicity and thereby misinterpret their experience as coarse-grained in a way that it is not.

(p.132) 4.3. Radical Confusion and the Revelation Problem

In the previous section I tried to motivate the idea that if we inherited trillions of microexperiences from our microscopic parts, they would be radically confused with one another, and we would be unable to tell that there were trillions of them. The radical confusion hypothesis says that this explains why our experience appears to be so much more coarse-grained than our brains are, and in particular why we do not experience phenomenal contrast among these many microexperiences:

> **Radical confusion hypothesis (RCH):** What makes human experience seem to be relatively coarse-grained is not an actual lack of fine-grained detail, but rather the fact that all of its component microexperiences are radically confused with one another.

4.3.1. Three Versions of the Revelation Thesis

Does this really solve the revelation problem? I will consider three objections, each in a different way claiming that my proposal conflicts with the sort of direct knowledge each of us has of our own consciousness. This direct knowledge is often formulated in terms of a "revelation" thesis, saying that the nature of a conscious experience is always "revealed" to subjects who have it. There are actually three different sorts of revelation principle,[6] which generate three sorts of objection to my proposal:

(p.133)

1. A "no illusions" thesis: It is incoherent for us to fall victim to an illusion about our own consciousness. The objection is then that the RCH requires an "illusion of simplicity," i.e., for our experience to seem simple or coarse-grained and yet not actually be that way.
2. A "revealed essence" thesis: When a subject focuses on and scrutinizes an experience they are having, they are in a position to learn the whole essence of the experiential property they thereby instantiate. The objection is that if the RCH were true, scrutiny of our experiences ought to reveal to us that they are formed out of a huge number of microexperiences, but in fact we are completely unaware of this fact.
3. A "self-presentation" thesis: When a subject has an experience, they are automatically in a position to know that they are having it. The objection is that according to the RCH we are having many experiences (the microexperiences that are parts of our composite experiences), which we have no way of detecting or knowing about.

The "no illusions" thesis differs from the "revealed essence" and "self-presentation" theses in that the former infers from appearance to reality (if consciousness seems a certain way, it must actually be that way), while the latter two infer from reality to appearance (if consciousness were a certain way, it would have to appear that way). For each argument, I will show that the

revelation thesis in question, when rightly understood, does not rule out the RCH.

4.3.2. The “No Illusions” Argument

So first, what of the objection that RCH posits an “illusion in consciousness”? If this was true, it would be problematic, for the idea of an illusion in consciousness is arguably incoherent. Illusions are when something seems one way but is not that way, but consciousness just is how things seem, so this discrepancy cannot arise; the seeming itself cannot be false.

But radical confusion is not an “illusion of simplicity”: an illusion is where our experience tells us something false—as when a straight stick placed in water looks bent. Our experiences do not “seem simple” in this sense; they do not feel some way that only simple experiences feel. Rather, their character is like the apparent motion of the sun—a veridical impression prone to an easy misinterpretation. The sun’s motion is not an illusion: that is how stationary objects look to a rotating observer. But we very readily infer from it something mistaken, namely that the sun orbits a stationary earth. Similarly, says the panpsychist combinationist, our experiences feel exactly how massively complex but radically **(p.134)** confused experiences feel. What they are “telling us” is true: that we cannot distinguish details within them.

Is it really plausible that we should systematically misinterpret the manifest structure of consciousness? Here are three reasons to think so. First, the misinterpretation has no bearing on any practical interest, and indeed may be made by only a handful of theorists; after all, most people have no particular opinion about the structure of consciousness. Second, when we take lack of distinguishable elements for lack of elements, the sort of inference we make (taking absence of evidence for evidence of absence) is easy and tempting, and often quite reasonable; indeed, it might be justifiable if we had no independent reason to think that experience arises from the massively composite brain. This corresponds, in the case of the sun’s apparent motion, to the error of neglecting to account for the motion of our own point of view, which is also an easy and tempting heuristic, and often appropriate: usually when we see something move it is not because we are standing on something that is rotating relative to it.

Finally, we make this error in an unsupportive context, where our normal presuppositions do not hold and it is hard to acquire information to correct them. In the case of the sun’s apparent motion, we cannot leave our earth-bound position to look from a third point of view (and when we do, on a shuttle or satellite, the mistake vanishes). Moreover, we lack the usual cues that our own standpoint is moving (e.g., air resistance). Similarly, when we interpret the “smoothness” of our experiences, not only do we lack the usual indications that our experiences are confused, but we are also profoundly limited by the fact that

if our experiences *are* all massively complex, then we have no idea what a simple experience would be like.

It bears emphasizing that we are not in the position of one who has experienced both massively complex but radically confused experiences and also genuinely simple experiences, who could then observe the character of both. Rather, if our parts' experiences really are radically confused relative to us, we are in the position of someone experiencing one or the other of these and trying to determine which without any basis for comparison. In such an unsupportive context, we might easily go wrong.

4.3.3. The "Revealed Essence" Argument

Second, consider the objection that according to RCH, one of the key features of our experiences is that they are composed of a trillion little parts, and that if this were true, we'd be able to tell by reflection on our experiences.

(p.135) But in fact RCH implies no violation of revelation regarding composite experiential properties, because what we are ignorant of in this case is not something essential to the *property* in question. As Chalmers (2017, 190) puts it, "It is . . . coherent to hold that the nature of a phenomenal property is revealed by introspection although the grounds of a specific instance are not." Consider: there is no contradiction in orange-experience being a blend of red-experience and yellow-experience for humans, but also existing in some other world, with different laws of nature, as one of the fundamental properties or as a blend of two qualities we cannot imagine (but whose suitability to blend into orange-experience would be evident to us if we could). If those possibilities are real, then being blended out of red-experience and yellow-experience is not essential to orange-experience, and revelation does not require that its blendedness be revealed to human introspection. The presence of particular ingredients necessitates the particular quality that is their resultant, but the reverse necessitation need not hold.[7]

Goff (2017a, 198) objects to my account of confusion on this score, holding that "we have direct phenomenal concepts of many . . . experiences, and hence if they were identical with complex micro-experiential states, our direct phenomenal concepts of those states would reveal this to us." This objection turns on the relationship between what is essential to an experiential *property* and what is essential to a particular *experience*. Goff attributes to me the view that "each [macro]experiential property is identical with the property of having a large number of specific micro-experiential properties (perhaps standing in certain relations to one another)," but in fact my considered view is only that each *particular macroexperience* is identical to a composite of many microexperiences in certain relations. The general property that a given macroexperience is an instance of—the phenomenal character that it has in common with all other experiences, however constituted, that feel that specific

way—is not identical to the various sets of microexperiential properties whose instances might constitute instances of it on various occasions. In previous work (Roelofs 2014a), I was not as clear on this point as I should have been, and Goff has my gratitude for pushing me to refine my position.

(p.136) 4.3.4. The “Self-Presentation” Argument

Finally, consider the objection that, according to RCH, we are each currently having trillions of experiences about which we are completely ignorant, and that this is incompatible with the “self-presenting” nature of experience.

But RCH implies no violation of the self-presentation principle because that principle needs to be qualified. It is not about subjects being struck with automatic knowledge, but about their being put in a position to know, and taking advantage of that position requires meeting various other conditions. One obvious condition is conceptual: a subject that lacks the concepts of “experience” or “essence” (e.g., a fish, probably) cannot come to know anything about the essence of an experiential property. But another condition is attentional: subjects come to know the essence of a particular experiential property only when they focus on that property, which various factors (e.g., distraction, intoxication, tiredness) may interfere with (cf. Brogaard 2017, 148). Radically confused experiences cannot be attended to (distinctly) and so their subject cannot know about them or their essences, even though the experiences do “present themselves” in the sense that *if* their subject could attend to them (and met the other conditions, like conceptual competence) they could know introspectively both that they were having those experiences and the essences of the experiential properties they were instantiating.

Note moreover that the radical confusion hypothesis does allow for a limited sense in which microexperiences *are* accessible and *can* be attended: namely that they can be accessed, and attended, but only by acts which are also accessing and attending many other microexperiences at the same time. They cannot be *individually* accessed or attended, but they can be accessed or attended *collectively*.

The objector might continue to object, as follows: “It is all very well to say that we know of our experiences only if we can attend to them, and that various internal and external factors can make this easier or harder. But even when things make it very very hard to distinctly attend to an experience of ours, they cannot make it impossible: if I am having an experience, it must be at least *possible* to distinctly attend to it!”

I reply that distinctly attending to microexperiences *is* possible, in principle. They are, so to speak, “right there” in our consciousness. They are incredibly difficult to pick out, however—as difficult as it is for the large-scale dynamics of our brain to be sensitive to a change in a single particle somewhere in our brain.

But there is no in-principle impossibility in there being such sensitivity, anymore than there is any in-principle impossibility in a human being jumping and, by a fantastic coincidence of repeated perfectly timed gusts of wind, flying to the top **(p.137)** of a mountain. In any realistic sense we cannot do this, but that is simply to say that the odds of its happening by chance are so minuscule as to not be worth considering.

There may in the future be ways to make this kind of in-principle possibility into a more practical possibility. Neurosurgery may allow for an enhancement of the human brain's self-monitoring powers; perhaps so too can lower-tech methods like meditation. Perhaps some combination of the two might be refined to the point where a brain could make itself distinctly sensitive to what is going on in a particular neuron, or even to certain structures within that neuron, and in the limit even to what is going on in a single particle (though of course being able to do this for each individual particle does not imply being able to do it for all of them at once). Perhaps we will instead build AI which possesses this capacity for fine-tuned inner sensitivity from the beginning. It is hard to speculate about what that experience would be like, because consciousness is not like a slide under a microscope, which remains stable while we change how closely we scrutinize it: these enhancements of self-awareness would be changes in the brain and thus would involve changes in our conscious state itself. The most we can say is that if there is a spectrum of skill at self-monitoring, with thoughtless or sleep-deprived people at one end and (perhaps) expert meditators at the other, then in the future it may become possible to create beings further advanced along that spectrum than any currently existing.

4.4. Phenomenal Blending and the Palette Problem

In section 4.1, I proposed that, whenever a composite is not sufficiently sophisticated to distinguish the elements of its unified total experience, it will be aware of them simply as a "phenomenal blend." This claim by itself does not say anything about the qualitative diversity or homogeneity of the microexperiences themselves. One view that panpsychists could take (what Chalmers [2017, 205] calls the "large palette" approach) is that all the vast range of qualities experienced by humans and other animals are already possessed at the fundamental level. But this is implausible, since it seems unlikely that such simple minds could share all the diversity of qualities that human minds have, especially if Russellianism is true and the basic experiential properties correspond to basic physical properties, of which there do not seem to be that many.

The far more attractive alternative is what Chalmers (2017, 205) calls the "small palette" approach, on which "all macroqualities can be generated from just a few microqualities, if we find the right underlying microqualities." I formulated this as:

(p.138)

> **Small palette hypothesis (SPH):** All the phenomenal qualities experienced by humans and other beings arise from blending different combinations of the small range of basic phenomenal qualities experienced by microsubjects.

Let us define the required sort of "blending" more precisely. It involves a composite experience which, merely in virtue of two (or more) parts of it displaying certain phenomenal qualities, and not being distinguishable by its subject, displays a single phenomenal quality, distinct from either but reflecting both in such a way that its dependence on them is intelligible. Call the former qualities the "ingredients" and the latter the "resultant." Note that the ingredients are still there: they do not go away when they form the resultant so as to no longer be instantiated. Yet nor is the resultant mere appearance: the resultant and ingredients are both genuinely present. Moreover, we have phenomenal blending only when it is intelligible why *that* resultant comprises *those* ingredients. One way to capture this relation would be in terms of resemblance:

> **Blending-resemblance principle:** Every ingredient in a phenomenal blend makes the resultant quality resemble that ingredient a bit more, i.e., a component experience with quality X makes the composite experience's quality "more X-ish."

For instance, we can capture the intelligibility of orange being a blend of red and yellow by noting that orange is both somewhat reddish and somewhat yellowish, and taking this to reflect the qualitative contributions made by a red component and a yellow component. Note that the blending-resemblance principle does not say that the *only* way that a quality can become X-ish is by having X as an ingredient, nor that there is only one way to generate a particular resultant. This is important for the position defended in section 4.3.3, that it is not essential to the qualities we experience that they arise out of any specific set of ingredients; in another world other minds might experience the very same qualities as us, as a result of blending different ingredients or without any blending at all.

I will defend SMH, involving phenomenal blending so defined, against three objections: that phenomenal blending is completely impossible; that even if some qualities could be blends, many of the qualities humans experience could not be resultants of blending; and that even if all the qualities humans experience could be resultants of blending, they could not arise from blending the same set of ingredients.

(p.139) 4.4.1. Is There Such a Thing as “Phenomenal Blending”?

The possibility of phenomenal blending is controversial. William James (1890, 157), for example, insists that “we cannot mix feelings as such, though we may mix the objects we feel, and from *their* mixture get new feelings.” Yet there do seem to be cases where we are distinctly acquainted, on different occasions, with both ingredients and resultant and can “just see” that the one is a combination of the others.

The examples most often appealed to involve colors. Lewtas (2013) suggests that orange experiences result from blending red experiences with yellow experiences; in a similar vein Chalmers (2016, 205) writes, “If the same entity simultaneously is aware of a degree of redness and aware of a degree of whiteness (at the same location), it is plausibly aware of pinkness (at that location).” This accords with the historical popularity of what Mizrahi (2009, 2) calls a “ ‘phenomenalist’ view of colour composition,” on which “binary” colors like orange and pink appear different to us from “unitary” colors like red and blue. Another candidate is aromas, tastes, and flavors—the flavor of a given food or drink being a blend of tastes and aromas provided by its ingredients.[8]

Of course the examples are not conclusive; it remains possible to deny that they involve any actual blending of experiences. Here is a representative passage from James (1890, 158):

> I find in my students an almost irresistible tendency to think that we can immediately perceive that feelings do combine. “What!” they say, “is not the taste of lemonade compounded of that of lemon *plus* that of sugar?” This is taking the combining of objects for that of feelings. The physical lemonade contains both the lemon and the sugar, but its taste does not contain their tastes, for if there are any two things which are certainly *not* present in the taste of lemonade, those are the lemon-sour on the one hand and the sugar-sweet on the other. These tastes are absent utterly.

Combinationists can agree with James that the mere fact that stimuli (sugar and lemon) have blended does not guarantee that the corresponding experiences have. **(p.140)** But it seems phenomenologically right to say that, in at least some cases, the experiences do blend. So why is James so sure that they do not?

Perhaps James means that because the sourness of lemon is subtly changed by being mixed with the sweetness of sugar, it is not strictly present in the blend. In most contexts this would be fallacious, since part-whole relations often involve the parts affecting each other, but there may be a special reason for objecting to such mutual adjustment in the phenomenal case, namely the principle of *phenomenal essentialism*, which appeared as premise **E4** in chapter 2. If how a quality is experienced is essential to it, and it is experienced differently in different contexts, then it is numerically distinct in those different contexts (Cf.

Mørch 2014, 154n19). Hence though parts are often changed by being in a certain whole, phenomenal qualities cannot be, because any phenomenal change makes them a different quality.

If we grant this argument from phenomenal essentialism, and suppose that in tasting lemonade the sweetness and sourness are phenomenally altered in some subtle fashion, then the taste of lemonade cannot be a blend *of the very same qualities* as are experienced in other circumstances. But the taste of lemonade may still be a blend; its ingredients may be the subtly different "counterparts" of the sweetness and sourness experienced in other circumstances. Nobody can deny that we often experience phenomenal qualities, in different contexts, which are at least similar enough to warrant us calling them "the same." And this same near-identity can be used to make sense of what James's students thought: that "the same" qualities are present in the lemonade blend and in isolated experiences. Thus even if this argument succeeds, it does not rule out blending in general.

Alternatively, perhaps James is saying that because it would not be true to say that "I am experiencing the sourness of lemon," it follows that my experience does not contain the sourness of lemon. But this equivocates between two senses of "experiencing the sourness of lemon." This might be an overall characterization of my experience, and thus mean "has an experience of lemony-sourness as their sole taste experience," or it might simply characterize an element of my experience, and thus mean "has a taste experience of lemony-sourness, perhaps among others." But since the latter clearly does not imply the former, the falsity of the former is no argument for the falsity of the latter.[9]

(p.141) 4.4.2. Do We Experience Evidently Simple Qualities?

Perhaps some of the qualities we experience are blends of others, but an objector might insist it is only some—those with a "phenomenologically composite" character (like orange). They might maintain that others (like red) display a "phenomenologically simple" character, and these could never arise from blending.

I cannot directly refute this objection, but I think it is at least as plausible that "phenomenologically simple" character is simply our having no acquaintance with the ingredients in a blend. Often a quality initially seems simple and unanalyzable—until further experience lets us discern the components within it. Dennett (1991, 73–74) describes an auditory example of this phenomenon, in which the sound of a chord played on a guitar appears simple and pure to the untrained ear, but comes to seem composed of distinct notes when one is familiar enough with the notes individually to recognize them in the mixture. In a similar vein, wine tasters often say that with practice, one learns to discriminate the different components of a wine's taste. And research showing that, e.g., untrained subjects frequently construe certain odors as increasing the

sweetness of a taste, while trained subjects do not (Bingham et al. 1990), reinforces the point that we are often fallible in distinguishing different sensations (cf. Chuard 2007). These cases make it plausible to suppose that all qualities seem phenomenologically simple until we can discern their ingredients —so that the apparent simplicity of a given quality does not warrant denying that it has ingredients.

It should be emphasized that neither the idea of phenomenal blending in general, nor the SPH in particular, is committed to any account of the specifics of *colors*. It is very possible that our sense of which particular colors are blends of which particular others is contaminated by our experiences with mixing paints or mixing light. The SPH does not say whether the qualities that blend into different colors are red, blue, and yellow (the primary colors of pigment), red, blue, and green (the colors our three types of retinal cone cell are most sensitive to), qualities corresponding to "luminosity," "saturation," and "hue," or something else. That is ultimately a question for psychology, neuroscience, and phenomenology to jointly answer. The utility of color experience is to give us insight into the general capacity of phenomenal qualities to blend into others, but systematizing this insight is no trivial task.

4.4.3. Do We Experience Qualities Too Dissimilar to Come from the Same Ingredients?

A final objection is that even if all the phenomenal qualities which we experience are such that they might be the resultants of blending, there still do not appear **(p.142)** to be any known qualities that could plausibly be the ingredients for all of them. McGinn (2006, 96) expresses this concern when he writes:

> We cannot . . . envisage a small number of experiential primitives yielding a rich variety of phenomenologies . . . [for] you cannot derive one sort of experience from another: you cannot get pains from experiences of colours, or emotions from thoughts, or thoughts from acts of will. There are a large number of phenomenal primitives.

McGinn is probably right that we cannot reasonably hope to get all qualities from any small set of *known* qualities, but the combinationist need not think that the basic ingredients are known to us. Instead, the basic ingredients may be "alien qualities," unimaginable but not inconceivable. It is a commonplace that there are such qualities: just as a human born anosmic cannot imagine olfactory qualities, we are all similarly limited regarding the qualities of the many sensory modalities that humans lack. We can entertain and accept the existence of such qualities, but we cannot "know what they are like."

Presumably, if familiar qualities can blend, so can alien ones. But can they blend *into familiar qualities?* For instance, might the familiar phenomenal quality of redness be a blend of two alien phenomenal qualities (call them AQ1 and AQ2)? If so, maybe all our phenomenal qualities result from blending, even when we

cannot identify their ingredients. (Of course, in one sense we *can* imagine AQ1 and AQ2, just by imagining redness. But when we do so, we cannot *separate* AQ1 from AQ2. They are imaginable together but not *distinctly* imaginable.)

However, even accepting the possibility of phenomenal blending among alien qualities, it may still seem that the different qualities we experience are too radically heterogeneous to be blends of the same ingredients. This problem is particularly pressing when considered in conjunction with the previous section's defense of the "revealed essence" thesis, that undergoing an experiential property puts us in a position to know its entire essence. In that section I noted that having a property's essence revealed to us is compatible with not knowing certain things that would follow from its essence, if we were also acquainted with other essences. In particular, knowing the essence of a quality does not by itself reveal all the different qualities which might blend together to make it: it only allows us to tell whether a given set of qualities, whose essences we must first already know, are suitable to blend together into it.

But when it comes to comparing two qualities that we do experience distinctly, this defense is unavailable. If both of their essences are revealed to us, surely we should be able, in principle, to discern every necessary truth about how **(p.143)** those qualities relate, and that should include their resemblance or lack thereof. According to the SPH, all the qualities we experience have elements in common, and to that extent surely ought to resemble each other at least somewhat. But then the "revealed essence" thesis implies that we should be in a position to discern those resemblances.

Indeed, this objection to my combination of the RCH and the SPH has been raised by Goff (2017a, 195–197), who offers the sight of red and the taste of mint as an example of two qualities which seem completely dissimilar, having no element in common. This is a serious objection, which demands a careful response. One might block it by simply denying the "revealed essence" thesis, but that would have the dialectical cost of undermining the case for panpsychism over physicalism (though perhaps not fatally). I would prefer to keep the "revealed essence" thesis and accept what it entails in this connection: that all the phenomenal qualities we experience must be *discernibly* similar to each other. And it is not clear to me that this is false—that redness and mintiness really have nothing in common. After all, our ability to recognize two things as akin to one another is usually enhanced by our ability to recognize and attend to the features they share, and if we cannot pick out their shared features we may wrongly feel that they are entirely unlike. Since we cannot recognize or attend to the basic ingredients, we may hastily form false impression of radical heterogeneity.

Of course, inability to pick out shared features does not always stop us registering similarities. Sometimes two things “seem alike” in some way, without our being able to say how. And this kind of inarticulate resemblance is in fact commonly encountered among experiential qualities: we frequently describe qualities of one modality using terms drawn from another (warm, harsh, sweet, soft, loud, etc.) or use sensory terminology to describe emotional or cognitive phenomenology. The SPH implies that, if fully and ideally scrutinized and analyzed, these inarticulately felt kinships would slowly reveal an edifice of systematically connected qualities covering our entire range of experience. This is the position taken by Coleman (2016, 264, emphasis in original), who writes:

> Just as it’s possible to move across the colour spectrum in tiny, almost undetectable steps, it must be possible to move from tastes to sounds, sounds to colors, and so on, via equally tiny steps. Tiptoeing between modalities already seems *conceivable* in certain cases, perhaps even actual. We know that what we experience as ‘taste’ is really some kind of fusion of qualia sourced from the nose and from the tongue. . . . It even strikes me as plausible that tactile qualia are just (qualitatively) more ‘forceful’ or ‘solid’ counterparts of ‘thinner’ auditory qualia. To address qualitative incommensurability we **(p.144)** must stretch to conceiving of such continuities as the rule rather than the exception. (cf. Hartshorne 1934, 35ff.; Coleman 2015)

Coleman suggests in particular that we may be mistakenly taking some of our qualities as completely dissimilar because we lack the contrast required to see the respects in which they are similar. After all, if the SPH is correct, the respects in which all our phenomenal qualities are similar are precisely those respects in which they differ from the qualities we would experience if we existed in another world made of different fundamental constituents, and those qualities are by hypothesis so dissimilar from everything we know as to be completely unimaginable. Coleman (2016, 265) analogizes us to a hypothetical being which only experienced color qualities, but experienced different clusters of them in response to different sorts of stimuli: “This creature’s tactile sensations are all varying shades of red, vision presents only blues, smell the greens, and so on, with the places where these qualities (for us) overlap conveniently screened out by the organism’s evolution.” Such a being would likely think of these different color qualities as completely unrelated quality spaces, but we with our full visual range see them as portions of a single quality space; “perhaps a being with a qualia-space correspondingly greater than ours as ours is greater than the color-only creature, would conceive of human qualia as belonging to a single ‘modality’ ” (265). I find this claim about the ultimate, though nonobvious, continuity of all the qualities we experience plausible, but it is a substantial phenomenological commitment, and may well be false. Consequently, the revealed essence thesis may be most threatening to

constitutive panpsychists not through the revelation problem itself, but through intensifying the palette problem.

4.5. Conclusions

Letting consciousness work like physical properties is necessary to vindicate the promise of constitutive Russellian panpsychism as nonphysicalist but still naturalist. But it will not profit us if we lose any hope of explaining human consciousness in this dizzying vortex of endless, mindless experience. The proposals in this chapter—the radical confusion hypothesis, small palette hypothesis, and informational structure hypothesis—lay the groundwork for this explanation. They show that our consciousness's genuine qualitative diversity, and apparent coarse-grainedness, are two sides of the same coin, and no objection to its being a combination of trillions of trillions of the same sort of part. They also tell us something about the consciousness of inanimate things, things with consciousness but without intelligence. If our experiences are blends because of our limited **(p.145)** powers of discrimination, inanimate things must have even more thoroughly blended experiences. The answer to "What is it like to be a table?" is roughly: it is like experiencing a single quality, though not one that any human has ever experienced. We higher animals are different, in that we can differentiate our experiences from each other. This gives us a form of consciousness that is highly structured compared to that of inanimate things; the next chapter explores how this structure is constructed. **(p.146)**

Notes:

(1) Leibniz's problem is even more radical, since each mind represents not only its own body but the whole universe.

(2) Leibniz appears to recognize and respond to the challenge of blurring much more explicitly than Spinoza does. Developing a Spinozistic response to the blurring problem is thus more of an exegetical task; see M. Wilson (1999) for a discussion of some attempts and their shortcomings.

(3) Note that confusion is different from indiscriminability, the relation between two items which "appear the same" to a subject. Indiscriminability involves two things seeming qualitatively equivalent to a subject even while they are recognized by that subject to be numerically distinct, and thus distinguished.

(4) What about "cacophonous" noises? For instance, if we enter a bar and are overwhelmed by the combined noise of many voices, chair movements, music, and so on, we seem to perceive that there are multiple sounds present but cannot focus on any one of them individually (cf. discussions of the "problem of the speckled hen": Ayer 1940; Tye 2009). Is this radical confusion that we can detect? I think this is actually better analyzed as a case of shallow confusion exacerbated by the brevity and equal salience of the elements. The component noises *could* be separately attended with time and effort but are so short in

duration that we cannot focus on them before they are gone and so similar in salience that we cannot select one to devote the necessary effort to. In such a situation, if we do decide to arbitrarily seize upon one component and focus on it, we usually succeed if it persists for more than a few moments. So this is not a case of radical confusion.

(5) This might mean that there are a number of clusters of experiences, all members of each of which are pairwise confused with each other, but not with the members of other clusters. Alternatively, it might involve continuous chains of confusion, with the end-points distinguishable but each pair of steps confused. The latter version would be ruled out if confusion were transitive, and as defined it appears so: if A cannot be thought without B being thought, and B cannot be thought without C being thought, then A cannot be thought without C being thought. However, this transitivity disappears if we allow for the "cannot" to assert only very low probability: that is, if A is thought then B will *almost* certainly be thought, with a probability close to 1, but might not be. The probability of C being thought will be slightly less, and so on, until we fall below the (likely vague) threshold for "cannot." (Cf. discussions of the nontransitivity of phenomenal indiscriminability, such as Goodman 1951; Hellie 2005; Raffman 2012.)

(6) This "revelation principle" was first given that name in Johnston (1992), who held it to apply to color properties insofar as they are manifested in visual experience; subsequent authors have discussed it specifically with regard to experiential properties (Stoljar 2006b, 221ff., Byrne and Hilbert 2006; Chalmers 2017; Goff 2017a, 85ff.). The most perspicuous formulation is the following:

Revelation Principle: [In having] a concept of a conscious state the content of which is wholly based on attending that state . . . the complete nature of the conscious state being attended to is directly revealed to the concept user. (Goff 2017a, 107)

A principle along these lines has been considered by some to reflect a deep and self-evident truth about the very idea of an experiential property (Strawson 1989; Johnston 1992), or as the best explanation for the kinds of judgments we seem able to make about experiences and their differences and similarities (Chalmers 2002; Goff 2017a, 109–113). Moreover, revelation or something like it plays a role in prominent arguments against physicalism (Chalmers 2009; Goff 2017a, 74ff.); insofar as panpsychists often rely on such arguments, they have special reason to make sure that their proposals are compatible with revelation. Chalmers's key premise is that the "primary intension" and "secondary intension" of phenomenal concepts coincide; this, like the revelation principle, says that we grasp experiential properties not by some accidental feature but by their essence: when we think of an experiential property, we know what it is that we are thinking of. This "coincidence of intensions" is, like the revelation

principle, only apparently in tension with RCH, for the same reasons as are given below.

(7) Note that nothing said here undermines conceivability arguments against physicalism. Those arguments rely on the idea that our acquaintance with consciousness lets us know whether a given situation we conceive of would be sufficient to underlie consciousness. That does not imply that acquaintance with particular experiences lets us know what specific situation underlies them. For a fuller defense of the compatibility of the RCH with the conceivability arguments against physicalism, see Roelofs (n.d).

(8) Psychologists, following McBurney (1986), have distinguished three ways for sensations to combine: analysis, when “two stimuli mixed in a solution keep their individual qualities of sensation”; synthesis, when “when two stimuli that have been mixed in a solution lose their individual qualities in order to form a new (third) sensation” (Auvray and Spence 2008, 1019–1020); and fusion, when “sensations [are] combined to form a single percept [which] . . . remains analyzable into its constituent elements even when otherwise perceived as a whole” (Prescott 2012, 79). The sort of cases that I have in mind are both what these schemes call “synthesis” and what they call “fusion.”

(9) Similar remarks apply to the apparent truism that nothing can display two colors at once to the same observer: nothing could both look red and look white at once. In one sense of “look red” and “look white,” nothing can do both, but this is because to “look red” in this sense definitionally precludes displaying any other visual qualities. But in another sense, looking both red and white might just be “looking pink.” Pink things look red, but unlike the things we tend to call “red-looking,” they also look white. This is analogous to the point made in chapter 3, section 3.2.2. about two meanings of “located at.”