

CONSCIOUS ATTENTION & DEMONSTRATIVE THOUGHT

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Declaration

I, Thomas Edward Williams, confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

Abstract

This thesis is concerned with the relation between attention and demonstrative thought. It focuses on John Campbell's view of this relation which he defends in his book *Reference and Consciousness* and some other work. Campbell's view is that conscious perceptual attention to an object explains how we are able to think perceptual demonstrative thoughts about that object. I will label this view 'Campbell's Thesis'. The main aim of this thesis is to assess Campbell's Thesis by identifying the issues upon which the question of whether we should accept or reject it turns, and by revealing some of the commitments that must be taken on by those who wish to reject it. The first main claim of this thesis is that Campbell's own arguments for his thesis are not entirely successful (largely because of his reliance on his notion of 'knowledge of reference'). The second main claim is whether we should accept or reject Campbell's Thesis really turns upon: (i) whether conscious perceptual attention is a unified psychological phenomena (I'll argue there is a strong argument for Campbell's thesis if this is so); (ii) whether it is acceptable to deny conscious perceptual experience of objects has an explanatory role with respect to our capacities to think perceptual demonstrative thoughts about objects (I'll argue those who reject Campbell's Thesis are committed to denying this). I won't claim to have settled the question of whether we should accept or reject Campbell's Thesis here. However I will claim to have clarified the issues upon which this question turns and revealed some of the commitments that must be taken on by those who wish to reject Campbell's Thesis.

Contents

CHAPTER I: CAMPBELL'S THESIS _____	6
1. Introduction_____	6
2. Conscious attention _____	7
3. Perceptual demonstrative thought_____	12
4. Knowledge of reference _____	19
5. The claims and strategy of this thesis _____	25
CHAPTER II: THE SEA OF FACES ARGUMENT _____	27
1. Introducing the argument _____	27
2. Campbell's correlation claim _____	31
3. The identity view _____	38
4. Two objections_____	40
5. Conclusions and looking ahead_____	59
CHAPTER III: THE EXPLANATORY DEMAND _____	63
1. The explanatory demand argument_____	63
2. The targeting-setting argument _____	68
3. An alternative argument _____	80
4. The explanatory role of conscious perceptual experience _____	85
5. Final conclusions _____	94
REFERENCES _____	96

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CHAPTER I:

CAMPBELL'S THESIS

1. Introduction

This thesis is concerned with the relation between attention and demonstrative thought. It is often claimed that attention explains how we are able to think demonstrative thoughts about objects and that it is required for such thought.¹ My aim in this thesis is to assess a version of this claim. My focus will be on John Campbell's version of this claim which he puts forward and defends in his book *Reference and Consciousness* and some other work.² The specific claim of Campbell's that I will focus on here is that conscious attention to an object explains how we are able to think perceptual demonstrative thoughts about that object, and that conscious attention to an object is an essential part of this explanatory story, such that it is necessary for perceptual demonstrative thought about that object. For example, Campbell writes:

Conscious attention to an object has an explanatory role to play: it has to explain how it is that we have knowledge of reference ... This means that conscious attention to an object must be thought of as more primitive than thought about the object. It is a state more primitive than thought about an object, to which we can appeal in explaining how it is that we can think about the thing (2002: 45).

There is the level of conceptual thought about your surroundings. [And] There is the level of conscious attention to your surroundings, which is more primitive than the level of conceptual thought, and which explains your capacity for conceptual thought by providing you with knowledge of reference. [C]onscious attention to an object ... is a state more primitive than thought about the object, which nonetheless, by bringing the object itself into

¹ Versions of this claim have recently been endorsed and employed in discussions of the nature of conscious attention (Campbell 2002: 2, 45, 96-97; Stazicker 2011a, 2011b: chapter 6; Watzl 2011b; Wu 2011a); discussions of the nature of demonstrative thought (Campbell 2002: 84-113; Dickie 2011; Levine 2010; Smithies 2011a, 2011b); and discussions of perceptual epistemology (Campbell 201, Roessler 2011).

² See Campbell 1997, 2004, 2006, 2011. Note the position in Campbell's 1997 is somewhat different to his position in his 2002 and later work. I focus on the later position here.

the subjective life of the thinker, makes it possible to think about that object. (2002: 5-6).

Suppose ... that you and I are sitting side by side looking at a cityscape, a panorama of buildings. If I am to think about any one of those buildings, if I am to formulate conjectures or questions about any of those buildings, if I am to be able to refer to any one of those buildings in my own thoughts, it is not enough that the building should simply be there, somewhere or other in my field of view. If it is simply there in my field of view, though unnoticed by me, I am not yet in a position to refer to it; I cannot yet think about it. If I am to think about it, I have to single out the building visually: I have to attend to it. (2002: 2).³

How should we understand Campbell's claim more precisely? There are at least three sets of issues we need to explore here. We need to ask: (1) What exactly does Campbell mean by conscious attention? (2) Exactly which kinds of thought about objects is Campbell's explanatory claim supposed to apply to? What does it mean to say the claim is supposed to apply to demonstrative thoughts, or to perceptual demonstrative thoughts? (3) How and why, in a bit more detail, is conscious attention supposed to explain such thought about objects? What does Campbell mean by 'knowledge of reference' in the quotations above? I'll try to give an answer to these questions in §§2-4. With these exegetical points in hand I will then go on, in §5, to discuss the main aims and claims and the strategy of this thesis.

2. Conscious attention

Our first task is to try to determine what Campbell means by 'conscious attention'. It's important to note that Campbell uses the term to pick out something that is supposed to be familiar to his readers, as an aspect of their everyday phenomenology, or through their introspective reflection. It is supposed to be part of our commonsense psychology, such that we all know how to deploy conscious attention and readily give psychological explanations and make psychological attributions in terms of it. Campbell often talks of

³ There are similar examples and claims scattered throughout Campbell's 2002. Also see Campbell 1997: 55-58ff.; 2004: 266-270; 2006: 246-250.

conscious attention as the ‘experiential highlighting’ of objects and sometimes even uses ‘conscious attention’ and ‘experiential highlighting’ interchangeably. He also says that when one consciously attends to an object one separates the object visually, as figure from ground, and one visually discriminates it from its surroundings (2002: 25). I suggest that Campbell’s use of the term conscious attention suggests that, if a form of attention is to count as *conscious attention* then it must meet two conditions or be conscious in two ways. Any instance of conscious attention must involve both: **(a)** conscious *experience* of the objects of attention; **(b)** conscious *selection* of the objects of attention (one must single out, separate, discriminate, highlight etc. the object of attention). In fact, Campbell always talks of conscious attention as something we *do* (albeit perhaps not always voluntarily), rather than something that merely happens to us. He also makes clear that the notion of attention he is employing doesn’t require one to overtly move one’s eyes, head or body, but can involve some covert, purely psychological act of selection (2002: 9). But beyond these basic points, Campbell doesn’t tell us a great deal about the nature of conscious attention. We might suggest Campbell hopes that, as William James famously put it, “Everyone knows what attention is...” (1890: 381).⁴

Now we should agree that there’s certainly an extent to which we do all know what attention is, and an extent to which conscious attention in Campbell’s sense really is phenomenologically and introspectively familiar, and part of our commonsense psychology. But I suggest there is also room to question how unified, precise or clear this commonsense or ordinary notion of conscious attention really is. For example we can note that lots of metaphors seem to attach themselves to our ordinary understanding of attention. As Campbell likes to stress, conscious attention seems to involve our ‘highlighting’ objects in

⁴ For some recent philosophical work on this kind of attention, often much impressed by this quotation from James, see the papers collected in Mole, Smithies and Wu 2011, as well as Mole 2010, Stazicker 2011, Watzl 2010, Wu 2011a. For a very different take on conscious attention, see O’Shaughnessy 2000 (esp. chapters 2, 7-9, 14). I’ll discuss the views of these philosophers in a bit in chapter 2, §4.

our experience. It also seems to involve a kind of ‘mental pointing’ towards or a ‘focusing of the mind’ on objects. It can be natural to talk of conscious attention as something we move like a beam or spotlight, illuminating this object then that (see Martin 1997). But these metaphors can be somewhat problematic. It can be unclear exactly what they pick out and how we should understand them; it can be unclear there is any one, unified, explanatorily and psychologically significant thing that they describe. I’ll develop this kind of point much more in chapter 2, §4. But for now let us note there may be question marks over precisely which aspect of mind Campbell’s notion of conscious attention picks out, and whether Campbell always picks out one and the same thing whenever he writes of conscious attention.

It’s going to be important to note that Campbell’s notion of conscious attention is qualified with ‘conscious’ so as to clearly distinguish it from some other kinds or notions of attention. In particular, it’s qualified in this way to distinguish it from some of the notions of attention employed in empirical psychology and neuroscience. In these fields attention is usually understood as the selection of information for further processing, with the term ‘attention’ used to refer to the mechanisms that facilitate or control this selection. In recent work Campbell is generally careful to distinguish conscious attention, in his sense, from these other kinds or notions of attention. For example he writes:

It is attention as a phenomenon of consciousness that matters [here] ... The kind of attention needed here is, as it were, a matter of experiential highlighting of the object; it is not enough merely that there be some shifts in the architecture of my information-processing machinery (2002: 2).

Spatial attention in Treisman's sense involves the singling out of a single location on the master map of locations, so that all features at the selected location can be bound together as features of a single thing. There is no very evident reason to think that spatial attention in this sense must be a phenomenon of consciousness ... The kind of low-level exercise of attention that Treisman's model argues is required for binding, contrasts with the kind

of exercise of conscious attention that I am arguing is required for knowledge of reference (2002: 31).⁵

Now we might reasonably think there must be some interesting relations between the attentional mechanisms studied by psychologists and conscious attention. After all, many (but not all) of the experiments these scientists use to study such attentional mechanisms involve manipulating something we might recognise as conscious attention. But I want to stress we should be careful not to identify or confuse the kind of conscious attention Campbell is interested in with attention as the selection of information for further processing (or with the mechanisms that facilitate or control this selection). We should also be careful not to assume any particular account of the relation between these notions or kinds of attention without some careful argument; I want to stress it is an open and difficult question how, and to what extent, these two notions or kinds of attention are related.⁶

It's also going to be important to note that conscious attention in Campbell's sense is not the only thing we could legitimately call conscious attention. It should be clear by now that Campbell is only interested in *perceptual* forms of conscious attention, which involves our selecting objects in perceptual experience. But there is also a perfectly legitimate sense in which we can consciously attend to objects simply by consciously thinking of them. Consider the following from M.G.F. Martin:

⁵ Campbell is making this point because he frames some of his discussion of these issues around Anne Treisman's Feature Integration Theory of attention (see, e.g., Treisman and Gelade 1980), which is a theory that concerns subpersonal information-processing mechanisms.

⁶One implication of this is we should be careful about importing some of the distinctions psychologists make (regarding attentional mechanisms) into our discussions of conscious attention. For example psychologists distinguish between exogenous and endogenous; transient and sustained; divided and selective; object-based, spatial and feature-based; top-down and bottom-up forms of attention (see, e.g., Pashler 1998; Palmer 1999: chapter 11; Chun *et al.* 2011). I suggest it's unclear whether all these distinctions can be straightforwardly applied to conscious attention.

What are the most obvious generalisations about attention and thought that form part of the manifest image of these aspects of mind? When I think about the level of subsidy for arable land in the Common Agricultural Policy, I thereby attend to European farming policy. In general, whatever we are prepared to call an object of thought—be it the things thought about, what one thinks about them, or the proposition one thinks in thinking these things—we can also take to be an object of attention. Conscious, active thought is simply a mode of attending to the subject matter of such thoughts ... [I]f we think of thoughts as determinations of attention, then there can be no way of thinking of something without thereby to some extent to be attending to it. (1997: 77-78; also see Martin 1998: 101-104ff.).

Now it should be clear Campbell's explanatory claim could not be taken to concern this kind of conscious attention. To consciously attend to an object in this sense *is just* to think about that object. So, presumably, this kind of conscious attention could not be taken to explain how some of our most basic kinds of thought about objects—e.g., according to Campbell, perceptual demonstrative thought—is possible, and cannot be required for such thought (in any non-trivial sense). For this reason it will be important to distinguish conscious attention in Campbell's sense (what I'll call conscious *perceptual* attention, although Campbell himself doesn't make this qualification) from the kind of conscious attention Martin describes.⁷ In fact there may be further kinds of conscious attention that are distinct from the kind of conscious perceptual attention Campbell is interested in. For example, Christopher Peacocke (1998: 68-69) and Brian O'Shaughnessy (2000: 275-277) argue we can consciously attend to our own actions—or rather, as they'd put it, our actions can *occupy* our attention—where such attending cannot be identified with and is not reducible to any form of perceptual attention. Whether or not this point is correct, the important point for our purposes is that Campbell's explanatory claim should be understood to concern only conscious *perceptual* attention; that is, the conscious selection of the objects of perceptual experience. Actually,

⁷ However in chapter 2, §§3-4 I will discuss in detail whether or not it's right to think conscious attention in thought and conscious perceptual attention are really significantly different kinds of attention.

more accurately, Campbell's discussion is almost entirely focused on *visual* perception and conscious *visual* attention. In this thesis I will also focus discussion entirely on vision. However, for ease of exposition, I'll follow Campbell and others by talking of 'perception' (especially 'conscious perceptual attention' and 'perceptual demonstrative thought') in an unqualified way.⁸

3. Perceptual demonstrative thought

The next question we need to ask with respect to Campbell's explanatory claim is: Exactly which kinds of thought is the claim supposed to apply to? That is to say: Exactly which kinds of thought does Campbell think are explained by and made possible by conscious perceptual attention? The short answer to this question is: only *perceptual demonstrative thought*. In this section I aim to give an account of what perceptual demonstrative thought is, explain how it differs from other kinds of thought, and indicate why Campbell's explanatory claim is only supposed to apply to this kind of thought.⁹

We can start by noting Campbell's explanatory claim is only supposed to apply to thoughts that are *about* or *refer to* particular objects. One way to expand on this idea is to say Campbell's explanatory claim is only supposed to apply to thoughts with contents whose truth or falsity turn on how things are with some particular object (or some particular objects). So it is only supposed to apply to thoughts with contents we could express with sentences containing some singular referring terms. For example:

⁸ It would actually be extremely interesting to discuss whether Campbell's explanatory claim applies to auditory attention, and what the differences between vision and audition are in this regard. But I regret I won't be able to consider these issues in this thesis.

⁹ For classic discussion of this kind of perceptually grounded thought, which stresses its fundamental importance and basicness, see Evans 1982: chapter 6; Moore 1918; Strawson 1959: chapter 1. Campbell himself doesn't offer us a particularly detailed characterization of what perceptual demonstrative thought is. What he does say is that: "[perceptual] demonstrative reference [is] reference made to a currently perceived object on the basis of current perception of it" (2002: 2). The characterization I offer here basically just expands on this idea.

- (1) Kaplan is a philosopher.
- (2) That person is a philosopher.

We can contrast such referential thoughts with thoughts with only general or quantificational content. That is to say, thoughts with contents we could express with sentences such as:

- (3) Some spy is a philosopher.
- (4) Every spy is a philosopher.

Campbell's explanatory claim is not supposed to apply to this kind of general thought. But why think we have two significantly different kinds of thought here? One reason is that there is an important contrast between sentences such as (1)-(2) and sentences such as (3)-(4), which express the contents of our two kinds of thought. As I just mentioned, the truth or falsity of (1)-(2) turns on how things are with some particular object. For example, (1) is true when the predicate '...is a philosopher' applies to the referent of the proper name 'Kaplan' and false when it does not. But (3)-(4) seem to be importantly different in this regard. (3) is true when the predicate '...is a philosopher' applies to some spy or at least one spy (it doesn't matter which), and false if the predicate '...is a philosopher' applies to no spy. And (4) is true when the predicate '...is a philosopher' applies to every spy, and false if the predicate '...is a philosopher' fails to apply to at least one spy (it doesn't matter which). In this way (3)-(4) have an element of generality that is absent in (1)-(2), and (1)-(2) have an element of particularity that is absent in (3)-(4). We could point to another difference between our two pairs of sentences: they behave differently under wide-scope and narrow-scope negation. For example the following sentences seem to be equivalent:

- (5) It's not the case that Kaplan is a philosopher.
- (6) Kaplan is not a philosopher.

But compare:

- (7) It's not the case that some spy is a philosopher.
- (8) Some spy is not a philosopher.

If David Kaplan (a philosopher) is a spy and George Smiley (a spy) is not a philosopher, then (8) is true and (7) is false. So (7) and (8) are clearly not equivalent. These simple observations, which reveal significant semantic differences between the contents of our two kinds of thought, will probably reassure us that we really do have two significantly different kinds of thought here, with Campbell's explanatory claim applying only to the referential kind.¹⁰

Next we can ask: Is Campbell's explanatory claim supposed to apply to *any* referential thought? Clearly not. If it were, then it would be open to immediate counterexamples. For example, plausibly I can think thoughts that are about or refer to the philosopher David Kaplan, since I know something about his life, have engaged with his work, and since I can recognise his writing style and name (etc.). However, as far as I know I have never consciously perceptually attended to Kaplan. Indeed, as far as I know, I have never even seen a

¹⁰ One problem with this brief discussion is that it leaves unclear how we should treat thoughts with contents we would express using definite descriptions. For example:

- (9) The shortest spy in England is a philosopher.

Whether we treat such thoughts as of the same kind as thoughts with contents expressed by (1)-(2) will partly turn on some tricky issues about whether definite descriptions should be analyzed as having quantificational form (e.g. with (9) as $\exists x [(F(x) \wedge \forall y (F(y) \rightarrow x = y)) \wedge G(x)]$), or whether we should think definite descriptions can sometimes act as singular referring terms. (For the relevant arguments compare, e.g., Russell 1905, 1919; Evans 1982: 51ff.; Kripke 1977; Neale 1990 with Strawson 1950; Donnellan 1966; Millican 1990—for a helpful overview of the debate see Ludlow 2011). This will also partly turn on whether we should hold the thoughts with contents expressed by (1)-(2) are fundamentally of a kind that have *object-dependent* content (i.e. a content that is about a particular object, such that any thought episode which has that content could only occur given the existence of that particular object (see, e.g., Evans 1982: esp. 71ff. and McDowell 1982: esp. 402ff.; cf. discussion in Martin 2002)). If this were so thoughts with contents expressed by (9) may be of a fundamentally different kind to thoughts with contents expressed by (1)-(2), since the content expressed by (9) doesn't seem to be object-dependent in this way. But settling these issues in any definite way would take us too far afield here: Campbell's explanatory claim certainly isn't supposed to apply to thoughts with such descriptive content.

photograph of him or heard a recording of his voice. As such, conscious perceptual attention to Kaplan clearly does not explain how I am able to think about him, and conscious perceptual attention to Kaplan is clearly not required for me to think about him.¹¹

In light of this we might think Campbell's explanatory claim is supposed to apply to any referential thought about objects *in one's visual field*, such that those objects figure in or make a difference to one's visual experience. But this doesn't seem quite right either. For example we might imagine I am standing in the viewing gallery at the top of Tower Bridge in London. It seems perfectly possible that I could think about St. Paul's Cathedral, without having recently consciously perceptually attended to St. Paul's, even when its dome is there in my field of view, figuring in or making a difference to my visual experience. As long as I know a bit about St. Paul's and have the ability to recognise it (say), then I might well have a standing capacity to think about St. Paul's that I can exercise at any time, wherever I am. And there seems to be no reason to say I could not exercise this standing capacity while standing at the top of Tower Bridge, with the dome of St. Paul's figuring in my visual experience, unnoticed and unattended. So in this case, conscious perceptual attention to St. Paul's may well play no role in explaining how I am able to think about it. Of course it could be my standing capacity to think about St. Paul's in part depends on my having consciously perceptually attended to it in the past, but it needn't do so. Plausibly I might have such a standing capacity even if I have never laid eyes on St. Paul's and have never even seen a photograph of it (perhaps I have just read a lot about it). So it's not true in every case that conscious perceptual attention

¹¹ It might be objected that conscious perceptual attention could explain how I am able to think these thoughts in some more indirect way. For example, my conscious perceptual attention to the text of Kaplan's papers and the role of conscious perceptual attention in concept acquisition may be important in explaining how I am able to think such thoughts about Kaplan. But this doesn't seem to be the claim Campbell is interested in. Campbell's claim is that conscious attention *to an object* explains how thought about *that object* is possible, on a particular occasion.

explains how I'm able to think referential thoughts about objects in my visual field, nor that it's required for such thought.

For these kinds of reasons Campbell's explanatory claim should not be understood as applying to thoughts about objects that merely happen to be in one's field of view. Rather it should be taken to apply only to referential thoughts that are, in some sense, based upon or depend upon one's current visual perceptual relation to the objects of thought. To sharpen this idea we can point out it's plausible to think that, in order to think thoughts that are about or refer to particular objects, one must have some way of singling out or identifying those objects. For example, one must have some means of determining and fixing which particular object, out of many, one's thought is about. Now there are several different ways one might do this. In the case of Kaplan and St. Paul's discussed above, I had a standing capacity to single out these objects in thought because I had some suitable identificatory knowledge of them. I singled out and latched onto them via this identificatory knowledge or, as we might put things, via my standing concept of Kaplan or St Paul's.¹² But note that these kinds of ways of singling out objects for thought are, in some senses, quite demanding. One must have had some kind of previous encounter with the object (although, as we saw, not necessarily a perceptual encounter); one must have suitably stored some of the information gathered from this encounter; and one must have already built up a suitable concept of the object, involving suitable identificatory knowledge. But in many cases we are able to think about objects without doing this kind of preparatory work. We are able to single out or identify objects for thought by *demonstrating* those objects in virtue of our bearing some suitable relation to them (e.g. a perceptual

¹² It's very difficult to say exactly what the necessary and sufficient conditions for this kind of standing capacity to think about an object are. I don't want to offer any positive suggestions here. For some further discussion cf. Evans 1982 (especially chapters 4, 5, 8); Millikan 2000: 136-144, 177-192; Recanati 2012.

relation).¹³ Often we are able to do this on our very first encounter with an object, and sometimes on the basis of a very fleeting encounter.¹⁴

Now let us call thought episodes that involve this kind of demonstrative identification of objects *demonstrative thoughts*. So a demonstrative thought is a thought episode with a content that is about or refers to at least one particular object, such that the subject singles out and latches onto the object of thought by demonstratively identifying that object. These are the familiar kind of thought episodes with contents we would typically express with ‘*That is F*’ or ‘*This F is G*’, although we should note not every thought episode with a content we could express in this way will count as a demonstrative thought. In fact, nothing we’ve said so far commits us to the idea that demonstrative thought episodes have a distinctive kind of content, or that there is really such a thing as a distinctively demonstrative thought *content*. As we might put it nothing that’s been said so far commits us to the idea that:

[P] For any demonstrative thought episode e with content c : if any thought episode e^* also has content c , then, necessarily, e^* is a demonstrative thought episode.

Plausibly there’s good reason to think that [P] is true, especially if one takes a broadly Fregean view of thought content (as Campbell does), according to which the way in which one thinks of an object on an occasion will impact the

¹³ The paradigmatic way of demonstrating an object is to physically point to it. However, when we demonstrate an object for the purposes of our own thought (rather than for the purposes of communication) this kind of physical pointing is going to be unnecessary and unusual. Demonstrative identification in thought presumably involves demonstration in some private, psychological, and somewhat metaphorical sense. For classic discussion of demonstration and demonstrative identification see Kaplan 1989 and Evans 1982: chapter 6.

¹⁴ None of this should be taken to suggest demonstrating objects in this way is the only relatively undemanding way we have of singling out or latching onto objects in thought. Perhaps we can do so merely by constructing descriptions that uniquely identify objects (e.g. ‘The shortest spy in England’). Whether or not this allows us to think referential thoughts about objects is controversial, and I want to stay neutral about this here (but see discussion in the papers collected in Jeshion 2010).

content of one's thought on that occasion. But the characterization offered here allows us, in principle, to stay neutral on this issue.

Now also notice that we could subdivide types of demonstrative thought episodes by the type of relation the subject uses to demonstratively identify objects of thought. The standard examples in the literature are perception, memory and testimony (see, e.g., Evans 1982: 136ff.), but clearly our focus here is going to be on the perceptual case (and more specifically, the visual case). According to the characterization I'm offering here, a perceptual demonstrative thought is a thought episode with a content that is about or refers to at least one particular object, such that the subject singles out and latches onto the object of thought by demonstratively identifying that object, on the basis of the subject's perceptual relation to the object. In this sense the subject's perceptual demonstrative thought about an object is based upon and depends upon her perceptual relation to the object. It is only *this* kind of thought that Campbell's explanatory claim is concerned with.

It is important to note that, according to the characterization offered here, perceptual demonstrative thought is a distinctive kind of thought *episode*, which differs from other kinds of thought episodes in virtue of the way in which a subject singles out or identifies the object of thought, or, as we might put it, the psychological capacities a subject exercises when she does so. So nothing that's been said so far commits us to the idea that perceptual demonstrative thought episodes have distinctive thought *contents*. That is, nothing we've said so far commits us to:

[Q] For any perceptual demonstrative thought episode e with content c : if any thought episode e^* also has content c , then, necessarily, e^* is a perceptual demonstrative thought episode.

Whether or not [Q] holds is something I want to stay neutral about here.¹⁵

To wrap up: In this section I've explained which account of perceptual demonstrative thought I'm going to operate with in this thesis. Notably it's an account that has quite minimal commitments with respect to how we should individuate thought contents: it claims that the distinctive thing about perceptual demonstrative thought is the psychological capacities the subject exercises on the occasion of thinking, but it remains neutral about whether this entails perceptual demonstrative thoughts have a distinctive kind of thought content. I suggest we should understand Campbell's explanatory claim as concerning only this kind of thought.

With these exegetical points in hand, we can now set down a canonical formulation of the claim of Campbell's that I am interested in in this thesis. I'll call the claim 'Campbell's Thesis' (or '[CT]' for short):

[CT] Conscious perceptual attention to an object explains how we are able to think perceptual demonstrative thoughts about that object, and conscious perceptual attention to an object is an essential part of this explanatory story, such that it is necessary for perceptual demonstrative thought about that object.

4. Knowledge of reference

Now that we have precisely formulated Campbell's Thesis we can look in a bit more detail at how it is supposed to work and how Campbell tries to argue for it. The main idea is that conscious perceptual attention and perceptual demonstrative thought are connected by what Campbell calls 'knowledge of reference'. Campbell's key claim is conscious perceptual attention provides us

¹⁵ This will depend on some difficult issues about how we should individuate thought contents (e.g. at what fineness of grain) that I don't want to get into here. But I'll pick these points up again in chapter 2, §4 where I'll suggest there's reason to think [Q] is false. Also note that accepting [P] need not commit one to [Q].

with knowledge of reference when we think perceptual demonstrative thoughts, and conscious perceptual attention is the only thing that can do this (see Campbell 2002: especially 5-6ff.; 25-26ff.). Now Campbell thinks knowledge of reference is necessary for referential thought in general, and thus for perceptual demonstrative thought in particular. So it should be clear, in outline, why Campbell thinks conscious perceptual attention to an object explains how we are able to think perceptual demonstrative thoughts about that object, and why he thinks it is an essential part of this explanatory story: it's the only thing that can provide us with the kind of knowledge necessary to think perceptual demonstrative thoughts about that object. This, basically, is how [CT] is supposed to work and how Campbell tries to argue for it.

But this quick sketch raises a few questions. First: What does it mean, in more detail, to say conscious perceptual attention *provides us* with knowledge of reference. Second: What exactly *is* knowledge of reference? Why is knowledge of reference necessary for referential thought in general, and for perceptual demonstrative thought in particular?

With respect to the first question: I suggest it is not always entirely clear what Campbell takes the 'provides' relation to be. Campbell certainly seems to think conscious perceptual attention to an object *explains* how we come to have knowledge of reference with respect to that object (e.g. 2002: 5, 45, 97). But Campbell sometimes seems to think of this explanatory relation as a *causal* relation (e.g., 2002: 13, 34); while at other times he can seem to think of it as a *constitutive* relation (e.g., 2002: 6, 26, 34). Note that [CT] follows easily from the idea that conscious perceptual attention (and only this) provides us with knowledge of reference, with 'provides' understood in either the causal or constitutive way. And, actually, it's not going to matter too much for our purposes which way we understand the 'provides' relation.

What about knowledge of reference itself? What does Campbell tell us about this, except that it is necessary for referential thought about objects? Actually I want to suggest Campbell operates with and relies on two, not obviously equivalent, notions of knowledge of reference when he argues for and explicates [CT].

The first notion is rather thin, technical and programmatic. Knowledge of reference in this sense is given a functional characterization: it is whatever causes and justifies (grounds and controls) the pattern of use a subject makes with a term or concept; or, as Campbell sometimes puts it: whatever causes and justifies the use of the particular procedures for verifying and finding the implications of propositions involving a term or concept (see especially 2002: 21-25).¹⁶ One has knowledge of reference as long as *something* plays this causing and justifying (or grounding and controlling) role. One thing to note about this characterization of knowledge of reference is that it doesn't tell us all that much about what knowledge of reference actually *is* (hence I said it's rather 'thin'). It's reasonable to think there are lots of different things that could potentially play the functional role Campbell uses to characterize knowledge of reference, and not all of them things we'd naturally describe as 'knowledge'. For example, perhaps it's not obvious why certain subpersonal or unconscious states could not play this role. On the face of things, the fact that a determinate object has been selected by some subpersonal or unconscious system probably *could* cause and justify the pattern of use a subject makes with a term or concept, given that, as a result of this selection, the subject's pattern of use is suitably sensitive to how things are with that particular object. Next we should ask: Why think knowledge of reference in this sense is necessary for referential

¹⁶ Campbell likes to think of 'the particular procedures for verifying and finding the implications of propositions involving a term or concept' as the introduction and elimination rules a subject uses for the term or concept, which (plausibly) determine the pattern of use the subject makes with that term or concept. The idea is that knowledge of reference is what causes and justifies the subject's use of one particular set of introduction and elimination rules, rather than any other (see 2002: 22-26, 85-86).

thought about objects? Campbell doesn't really tell us, but I think the idea is if nothing were causing and justifying the subject's pattern of use of a term or concept, then we'd just have a random, uncontrolled, ungrounded pattern of use; one that is not, as it were, properly *tied to* the object the term or concept refers to. The idea is that we'd probably want to say a subject isn't really referring with a term or concept if she lacked knowledge of reference in this sense, even if, by some accident, the subject happened to adopt a correct or appropriate pattern of use (i.e. every proposition she expressed or thought that involved the term or concept were true). Assessing whether these claims are fully acceptable would probably require consideration of some truly foundational issues in the philosophy of mind and language, but for our purposes I'm just going to grant them to Campbell.

The second notion of knowledge of reference that Campbell operates with and relies upon is somewhat more thick, intuitive or full-blooded. Having knowledge of reference in this sense is a matter of knowing which object a term or concept refers to, in some colloquial or ordinary sense of 'know which' (see especially 2002: 14ff.; 2004). But, in fact, Campbell doesn't have much more to say about exactly what this kind of knowledge consists in; for example, whether it's propositional or non-propositional, whether it consists in having some practical capacity with respect to an object, what the necessary or sufficient conditions for it are (etc.). He also doesn't have much to say about why we should think this kind of knowledge-which with respect to an object is really necessary for any referential thought about that object (except that he points out, in certain cases, it's very natural to think subjects who clearly lack any ordinary form of knowledge-which cannot think referential thoughts about objects). Indeed it is actually notoriously difficult to give a precise account of what it is to 'know which item a thought is about', and thus notoriously difficult to argue that this kind of knowledge-which is really necessary for

referential thought.¹⁷ Campbell himself seems to want to stay as neutral as possible on the details here.

Now when Campbell writes of knowledge of reference it's not always obvious which of the two notions he is appealing to, and it can sometimes seem as if Campbell thinks the two notions are basically equivalent. I suspect that, to some extent, Campbell takes his thin and technical notion of knowledge of reference to be a precisification or formalization of his more intuitive and colloquial notion. But I suggest it's not obvious this move is legitimate and not obvious the two notions really could be equivalent. I say this because it's not obvious it's impossible one could have knowledge of reference in the technical sense described above, but nonetheless fail to 'know which' object is in question in any intuitive, ordinary or colloquial sense.¹⁸ I also suggest that some of Campbell's arguments genuinely rely on our understanding knowledge of reference in the ordinary or colloquial sense.¹⁹ This means we really do have two notions of knowledge of reference at play here, and thus must be careful not to allow Campbell to switch between different notions in his arguments.

To wrap up: We've seen the basic idea behind [CT] is that conscious perceptual attention provides us with knowledge of reference for perceptual demonstrative thoughts, where knowledge of reference with respect to an object is necessary for any referential thought about that object (including perceptual demonstrative thought). However we've also seen we should be doubly cautious about Campbell's notion of knowledge of reference since: **(a)** he seems to operate with two non-equivalent notions; **(b)** one of the notions he relies

¹⁷ See Hawthorne and Manley (2012: esp. 71-73ff.) for some recent argument that colloquial 'know which' attributions are much too context-dependent to be of use here (also see, e.g., Boër and Lycan 1986, Burge 2010: chapter 6). Even Gareth Evans, who is a major proponent of 'knowing which' requirements on referential thought about objects, admits the condition is extremely difficult to make precise (1982: chapter 4, esp. 89-92ff.).

¹⁸ In fact this may seem to be the case in Campbell's own sea of faces case, which I'll discuss in detail in the next chapter.

¹⁹ Again, see especially the sea of faces argument discussed in detail in chapter 2.

upon and argues with—the intuitive, colloquial notion—is not especially clear or precise.

At this point we should note discussion in this introductory chapter reveals something important about Campbell's general strategy in arguing for and explicating [CT]. Given the ways in which Campbell characterizes conscious perceptual attention and knowledge of reference, we are not going to find Campbell arguing for [CT] in any particularly direct manner. For example, we are not going to find him arguing for it by providing some detailed account of exactly what conscious perceptual attention is, and of exactly what knowledge of reference is, and then by explaining, in detail, what it is about the nature of conscious perceptual attention that means only *it* could be what provides us with knowledge of reference and explains our capacities for perceptual demonstrative thought. Rather, we should expect to find Campbell arguing for [CT] only by more indirect means. One way to explain this point is to say there is something somewhat schematic or programmatic at the core of [CT]. On one way of reading Campbell, his core point is that *some* primitive and non-conceptual perceptual faculty explains some of our most basic capacities to engage in conceptual thought about objects, and that it does so by causing and justifying the patterns of use we make with our most basic concepts of objects (what Campbell would consider to be perceptual demonstrative thoughts and concepts). Campbell expands on this core point by arguing that conscious perceptual attention is the best candidate for a primitive and non-conceptual faculty that plays this role. He argues this by highlighting some of the basic selective properties of conscious perceptual attention and by ruling out some other potentially promising alternatives we might think could play this role (e.g. mere perceptual experience of objects and certain unconscious information-processing mechanisms). Indeed, on one way of reading Campbell, he doesn't actually have a huge amount to say about why conscious perceptual attention, in particular, should play this role. In kinds of ways, I suggest, Campbell's

general argumentative strategy is somewhat indirect. These points are something we need a firm grip on when we interpret and assess Campbell's arguments for [CT].

5. The claims and strategy of this thesis

The main aim of this thesis is to assess Campbell's Thesis by identifying the issues upon which the question of whether we should accept or reject it turns, and by revealing some of the commitments that must be taken on by those who wish to reject it. My main strategy will be to evaluate, develop and expand Campbell's own arguments for [CT]. The first main claim of this thesis is that Campbell's own arguments are not entirely successful, largely because of his reliance on his notion of 'knowledge of reference'. The second main claim is whether we should accept or reject Campbell's Thesis really turns upon: (i) whether conscious perceptual attention is a unified psychological phenomena (I'll argue Campbell has a strong argument for his thesis if this is so); (ii) whether it is acceptable to deny conscious perceptual experience of objects has an explanatory role with respect to our capacities to think perceptual demonstrative thoughts about objects (I'll argue those who reject Campbell's Thesis are committed to denying this).

The plan is as follows: In chapter 2 I reconstruct what I take to be Campbell's main argument for [CT]. I claim this argument is successful only if we make some substantive assumptions about the unity of conscious perceptual attention (which I'll suggest will not be easy to defend in any definite way). In chapter 3 I consider some of Campbell's subsidiary arguments for [CT] that do not rely on the unity of conscious perceptual attention. I claim these arguments are unsuccessful, but I also claim we can develop an alternative and more promising argument for [CT], based on some ideas in the background of Campbell's discussions of these issues. The argument claims any position that rejects [CT] must also deny conscious perceptual *experience* of objects explains

our capacities for perceptual demonstrative thought. I'll suggest there are various different ways we could develop the argument at this point, but I will focus discussion on a version that argues denying conscious perceptual experience explains our capacities for perceptual demonstrative thought commits one to the idea our commonsense explanations of our capacities to think perceptual demonstrative thoughts are confabulations, and also that this may lead to scepticism about some of our most basic kinds of non-inferential perceptual knowledge. However I'll suggest that turning this into a complete or decisive argument for [CT] would probably require some substantial discussion of perceptual epistemology, which is beyond the scope of this thesis.

I won't claim to have settled the question of whether we should accept or reject [CT] in this thesis, and won't claim to have given a decisive or complete argument in favour of it. However I will claim to have clarified the issues upon which this question turns and to have revealed some of the commitments that must be taken on by those who wish to reject Campbell's Thesis.

CHAPTER II: THE SEA OF FACES ARGUMENT

1. Introducing the argument

Campbell's primary argument for [CT] asks us to compare and contrast some imaginary cases in which a subject consciously perceptually attends to an object and cases in which a subject does not (or cannot) consciously perceptually attend to an object. The most developed and important case of this form is Campbell's 'sea of faces' case (see, e.g., 2002: 8-9; 2004: 268-269; 2006: 246-250).

In the sea of faces case we are to imagine two subjects, H and S, looking out over a crowded room of people. S asks H some questions about a particular person in the room using the demonstrative expression 'that woman'. For example, S asks H: 'What's that woman doing?' or 'What's that woman wearing?'. When H inevitably asks S: 'Which woman do you mean?' S refuses to give H any clues. H doesn't have any other means of working out who S is referring to. H tries singling-out different people in her experience. But she doesn't know if any of them is the woman in question. After a while H gives up on this singling-out, and her visual experience becomes as of a 'sea of faces'. At this point S asks H to try to point to the woman S is referring to. Of course H will protest she can't do this since she doesn't know which woman S is referring to. But S insists H tries to guess. When H does try to point, to her surprise she is told she is pointing to the right woman. We can give H more abilities with respect to the woman in question so that H "can make reliable guesses about what the person is eating, wearing, and so on, as well as reaching and pointing appropriately" (2002: 8-9).²⁰ But H's experience remains as of a sea of faces. H does not (or cannot) consciously perceptually attend to the woman in question.

²⁰ Presumably we're supposed to think that some processes or mechanisms in H's visual system have, somehow, latched onto the correct woman and are feeding and controlling H's responses and actions.

Campbell concludes:

so long as H's conscious experience remains a sea of faces, there is an ordinary sense in which H does not know who S means. The problem here does not have to do with whether H is reliable: we can suppose that H is quite reliable in her guesses and establish this over a series of such cases. The point is rather that H does not know who S means until H finally looks at where H's finger is pointing, or looks to see who is wearing the clothes she described in her guesses. It is only when H has finally managed to single out the woman in her experience of the room ... that she would ordinarily be said to know who was being referred to. So it does seem to be compelling to common sense that conscious attention to the object is needed for an understanding of the demonstrative (2002: 9).²¹

How might this case be used to argue for [CT]? One thing to note immediately is the sea of faces case seems to concern H's understanding of S's questions. But we've seen [CT] is really about the relation between conscious perceptual attention and thought about objects, not the relation between conscious perceptual attention and understanding the speech of others. No doubt there are some interesting and close connections between our abilities to think about objects and our abilities to understand speech about objects; but these connections may not be straightforward. To avoid this complication I suggest we should interpret Campbell as wanting us to think that, as the sea of faces case is described, the only way H could work out which woman is in question, and thereby understand S's questions, would be to make a perceptual demonstrative identification of the woman in question, and think perceptual demonstrative thoughts about her. In other contexts there may well be other ways H could come to understand S's questions, but we're supposed to think this is the only option open to H as the case is described. The main point Campbell wants to make with the case is H plausibly lacks the kind of knowledge necessary to think this kind of thought about the woman in question. It is *this*, according to Campbell, that prevents H from understanding

²¹ Campbell describes the case in the first and second person. To make the case easier to discuss I have rewritten it with the names H and S. To make the rewritten passage readable I have omitted square brackets.

S's questions. As such, we can interpret the sea of faces case to be fundamentally about perceptual demonstrative thought. This interpretation makes the case more relevant to [CT]. It allows us to avoid getting caught up in issues relating to communication and understanding speech, and the relation between these things and thought about objects.

Under this interpretation, Campbell's main claims about the case are:

[1] If H doesn't consciously perceptually attend to the woman then, even when H has all these abilities to answer questions and act with respect to the woman in question, it is still natural to think H doesn't have the kind of knowledge necessary to think a perceptual demonstrative thought about the woman (i.e. what Campbell calls 'knowledge of reference').

[2] As soon as H does manage to consciously perceptually attend to the woman, it seems she will immediately come to have the kind of knowledge necessary to think a perceptual demonstrative thought about the woman.

If this is right, then it may seem natural to think conscious perceptual attention is making the difference as to whether H has the kind of identificatory knowledge necessary to think perceptual demonstrative thoughts about the woman in question in the sea of faces case. But, of course, Campbell wants this point to generalize beyond the rather bizarre sea of faces case. He intends the sea of faces case to make it compelling that in *any* case, conscious perceptual attention to an object makes the difference as to whether a subject has the kind of knowledge necessary to think perceptual demonstrative thoughts about that object. The sea of faces case is supposed to legitimize this kind of generalization because it is carefully designed such that the only thing H is missing, apart from knowledge of reference, is conscious perceptual attention to the woman

in question. For example: (i) H has a reliable and active perceptual information-link with the woman in question; (ii) H has the ability to make guesses about and act with respect to the woman on the basis of this information-link; (iii) the woman is, in some sense, making a difference to or figuring-in H's visual experience. The case is also supposed to highlight that, if we add conscious perceptual attention to the mix, then the kind of knowledge necessary for perceptual demonstrative thought immediately seems to follow. As we might put things, the case is designed to show conscious perceptual attention to an object and knowledge of reference with respect to that object are correlated. That is to say, we can interpret the case as designed to support the following correlation claim:

[C1] One has the kind of knowledge necessary to think perceptual demonstrative thoughts about an object iff one consciously perceptually attends to that object.

We can interpret Campbell as going on to claim the best or most natural explanation of [C1] is:

[A] Conscious perceptual attention to an object (and only this) provides us with the kind of knowledge necessary to think a perceptual demonstrative thought about that object.

So generalizing from the sea of faces case is also supposed to provide support for [A]. And [CT] follows easily from [A] (see chapter 1, §4). This is how I suggest we should understand Campbell's sea of faces argument; or rather, this is the reconstruction of Campbell's rather brief argument I want to discuss here.

What should we make of the argument? There are two broad strategies we might pursue in challenging it. The first strategy would be to challenge the claim that [C1] is motivated and supported by consideration of and generalization from cases like the sea of faces case. The second strategy would

be to challenge the claim that [A] is the best and most natural explanation or account of why [C1] seems to hold. I want to pursue only the first strategy here. I will suggest we should grant only a modified version of [C1] is made compelling by generalizing from the sea of faces case (§2). I then want to suggest there are alternative accounts of why this modified version of [C1] seems to hold that are incompatible with [A] and [CT] (§§3-4).

2. Campbell's correlation claim

There are different ways we might pursue the first strategy. One way would be to try and challenge Campbell's analysis of the sea of faces case itself. We might try and say H probably can think perceptual demonstrative thoughts about the woman in question as the case is described. So whatever exactly 'the kind of knowledge necessary to think a perceptual demonstrative thought' consists in, we'd say H has this without consciously perceptually attending to the woman in question. This would falsify the bi-conditional I labelled [C1] above. However, I won't pursue this line of thought here. I think we should grant to Campbell at least that: **(a)** it's very natural to think H can't think perceptual demonstrative thoughts about the woman in question, even though she can point to and answer questions about her; **(b)** there is at least some important and interesting sense in which H doesn't know which woman is in question. However, whether points (a) and (b) mean H lacks the kind of knowledge necessary to think a perceptual demonstrative thought about the woman is another matter: it could be that something else is stopping H being able to think perceptual demonstrative thoughts. As we've seen it's very difficult to pin down exactly what this kind of knowledge consists in (see chapter 1, §4), so I suggest it's very difficult to tell either way.²²

²² In fact I suggest it can be difficult to see why H wouldn't have knowledge of reference in the thin and technical sense described in chapter 1, §4, as the case is described. That is, it can be difficult to see why we should think there is nothing causing and justifying or grounding and controlling the pattern of use H makes with the demonstrative concept 'that woman'. We

Another, perhaps more promising way to pursue the first strategy would be to challenge Campbell's generalization from the sea of faces case. We might try to think of cases in which conscious perceptual attention to an object and the kind of identificatory knowledge necessary to think a perceptual demonstrative thought about that object seem to come apart. To this end we might try to construct cases where: (i) one does not consciously perceptually attend to an object, but one does seem to have the kind of knowledge necessary to think a perceptual demonstrative thought about the object; or, cases where: (ii) one does consciously perceptually attend to an object, but nonetheless one does not seem to have the kind of knowledge necessary to think a perceptual demonstrative thought about that object.

I suggest constructing type-(ii) cases will be very difficult. One thing Campbell's sea of faces case seems to successfully bring out is that conscious perceptual attention to an object does seem to be immediately accompanied by knowledge of reference. As soon as a subject consciously perceptually attends to an object it's reasonable to think that, as long as she has a general capacity to think perceptual demonstrative thoughts about perceptually salient objects, she will thereby be able to think perceptual demonstrative thoughts about that object. And if the subject is able to think perceptual demonstrative thoughts about the object, then she must already have the knowledge necessary for such thought. So at least one half of the bi-conditional in [C1] seems plausible. That is to say, it seems plausible from considering and generalizing from Campbell's sea of faces case that:

[C2] If one consciously perceptually attends to an object, then one has the kind of knowledge necessary to think perceptual demonstrative

might reasonably think the processes or mechanisms in H's visual system that have somehow latched onto the correct woman, and are feeding and controlling H's responses and actions, are playing exactly this role. This suggests Campbell is probably primarily employing his more intuitive and colloquial notion of knowledge of reference in this argument, and that the two notions of knowledge of reference really can come apart (see discussion in chapter 1, §4).

thoughts about that object.

Trying to construct type-(i) cases might be more promising. For example, one thing to note about the sea of faces case is it involves a crowded room, full of many potential objects for demonstrative identification. Perhaps something like this feature of the sea of faces case makes Campbell's generalization to [C1] illegitimate. To develop this idea we might try and adapt one of Campbell's other cases that doesn't have this feature. We can imagine that H and S "are standing side by side on an observation platform high in the sky" (2002: 25). Imagine H is gripping the railing on the platform tightly, staring intently at and perceptually attending to her hands. Let us suppose H has been doing this the whole time she and S have been up on the platform. Now suppose S makes some remarks about a gold-domed building, which is in front of S and H, is figuring-in the periphery of H's visual experience, and is the only building in view. We might wonder: Could H have the kind of identificatory knowledge necessary to think a perceptual demonstrative thought about the gold-domed building in this situation, when H does not consciously perceptually attend to the building (and has not attended to it recently)? If she could, then [C1] is false.

One way we could get a grip on this question would be to ask: Do we think H could in fact think perceptual demonstrative thoughts about the gold-domed building in this situation? If she can then she must have the relevant knowledge. Now there is certainly a sense in which it's natural to think H *can* think perceptual demonstrative thoughts about the gold-domed building. But this may just be because there is also a sense in which, unlike in the original sea of faces case, H can easily consciously perceptually attend to the gold-domed building: all she has to do is look up. But I suggest it's unclear we can imagine H essaying a perceptual demonstrative thought about the gold-domed building without thereby also imagining H has consciously perceptually attended to the building. If we insist on stipulating H cannot consciously perceptually attend to

the building at any point—e.g. because H is too terrified to shift her attention from her hands—then this just seems tantamount to stipulating H cannot single out or select the building for thought (on the basis of her perceptual encounter with it), in which case it doesn't seem as if H can think perceptual demonstrative thoughts about the gold-domed building. If this line of thought is correct, should we grant Campbell the other half of the bi-conditional in [C1]? (That is, grant to Campbell the half that says 'knowledge of reference entails conscious perceptual attention'; recall I've already suggested it's plausible to think 'conscious perceptual attention entails knowledge of reference').

I suggest not. Note we've tried to test Campbell's claim that 'having the kind of knowledge necessary to think a perceptual demonstrative thought about an object entails conscious perceptual attention to that object' by trying to see if we can imagine cases in which a subject *actually thinks* a perceptual demonstrative thought about an object without consciously perceptually attending to that object. We found it is difficult to imagine any such cases. This provides some support for the following claim:

[C3] If one thinks a perceptual demonstrative thought about an object, then one consciously perceptually attends to that object.²³

But notice [C3] doesn't entail or suggest there are not cases in which a subject has the kind of knowledge necessary to think a perceptual demonstrative thought about an object but does not consciously perceptually attend to that object. This is because it seems possible a subject might have this kind of knowledge but nonetheless may not actually think a perceptual demonstrative

²³ It's essential to notice the correlation claims I'm discussing here (i.e. the '[C_] claims) are now about the relation between three different things: (a) conscious perceptual attention; (b) the kind of knowledge necessary to think a perceptual demonstrative thought (i.e. knowledge of reference); (c) perceptual demonstrative thought itself. [C1] and [C2] are about the relation between (a) and (b); [C3] is about the relation between (a) and (c).

thought about the object. Whatever exactly the kind of knowledge necessary to think a perceptual demonstrative thought consists in, it doesn't seem plausible one's having this knowledge *always* entails one actually thinks a perceptual demonstrative thought about an object (or, at least, we haven't been given any reason at all to think this is so). If that's right then [C3] does not entail:

[C4] If one has the kind of knowledge necessary to think a perceptual demonstrative thought about an object, then one consciously perceptually attends to that object.

[C2] and [C4] would entail [C1], which is the claim Campbell is after, but [C2] and [C3] do not.

Can we support or refute specifically [C4], rather than just [C3], on the basis of constructing the kind of imaginary cases we've been considering in this chapter? It's unclear to me we can. To properly assess [C4] we'd have to try and construct some cases in which a subject: **(a)** doesn't actually think a perceptual demonstrative thought about an object; **(b)** has the kind of knowledge necessary to think a perceptual demonstrative thought about the object; **(c)** does not consciously perceptually attend to that object. If such cases seem possible, this would suggest [C4] is false. If they don't seem possible, this might provide some support for [C4].

We must concede there is a sense in which it is extremely difficult to imagine any such cases. But I suggest this may not be because there is any incoherence in imagining a subject has the kind of knowledge mentioned in (b) without consciously perceptually attending. That is to say, it may not be because if we imagine a subject has knowledge of reference we must also thereby imagine the subject consciously perceptually attends to the object in question. Rather, the difficulty imagining cases with features (a)-(c) may have much more to do with the fact that, as I've repeatedly stressed, it is unclear exactly what the kind of

identificatory knowledge—i.e. ‘knowledge of reference’—mentioned in (b) really consists in. Campbell hasn’t provided us with any detailed or unified account and seems unwilling to do so. It’s therefore very difficult to tell whether the relevant knowledge is present or absent in any imaginary cases we construct. One promising way to tell is to test if we can imagine a subject actually thinking a perceptual demonstrative thought. If we can, she must have this kind of knowledge. But, I’ve suggested, we can’t use just this method to properly assess [C4]. To properly assess specifically [C4], as opposed to just [C3], we must also imagine some cases in which the subject does not actually think a perceptual demonstrative thought about the object in question.

If this line of argument is correct then Campbell’s sea of faces argument—or rather, my reconstructed version of it—underdetermines whether we should accept or reject [C4]. And if that’s right, we should grant Campbell only a modified version of [C1]. Recall [C1] claims:

[C1] One has the kind of knowledge necessary to think perceptual demonstrative thoughts about an object iff one consciously perceptually attends to that object.

But our discussion suggests we should grant to Campbell only:

[C2] If one consciously perceptually attends to an object, then one has the kind of knowledge necessary to think perceptual demonstrative thoughts about that object.

And also:

[C3] If one thinks a perceptual demonstrative thought about an object, then one consciously perceptually attends to that object.

But, crucially, not the claim that would entail [C1] when combined with [C2]:

[C4] If one has the kind of knowledge necessary to think a perceptual demonstrative thought about an object, then one consciously perceptually attends to that object.

Bear in mind the point here is not we've shown [C4] is false (or even implausible). Rather I hope to have suggested that once we make a distinction between: (i) *actually thinking a perceptual demonstrative thought*; (ii) *having the kind of identificatory knowledge necessary to think a perceptual demonstrative thought*, it is difficult to see how we might establish or motivate [C4], as opposed to just [C3], by considering these kinds of imaginary cases. What we'd need is some separate argument for specifically [C4] involving some detailed and unified account of what it is to have the kind of knowledge necessary to think a perceptual demonstrative thought. But, I suggest, we are not going to get any such account or argument from Campbell. The question we now face is: How does the rest of Campbell's argument fare, given I've argued we should accept only a modified version of [C1]?

Recall Campbell wants to claim the best explanation or account of his correlation claim [C1] is:

[A] Conscious perceptual attention to an object (and only this) is what provides us with the kind of knowledge necessary to think a perceptual demonstrative thought about that object,

from which [CT] follows quite easily. But it's much less clear [A] is the best explanation or account of [C2] and [C3]. The key prediction of [A], the one that is supposed to make it the most natural explanation or account of what seems to be going on in cases like the sea of faces case, is precisely [C4]. If conscious perceptual attention to an object (and only this) is what provides us with the kind of knowledge necessary to think a perceptual demonstrative thought about the object, then [C4] should hold. However I've just suggested

generalizing from cases like the sea of faces case really underdetermines whether [C4] holds, and only supports [C2] and [C3]. In the remainder of this chapter I will argue the fact only [C2] and [C3] are supported by the sea of faces argument opens the door to at least one alternative explanation of what's going on in cases like the sea of faces case, which involves an account of the relation between conscious perceptual attention and perceptual demonstrative thought that is incompatible with [A] and [CT].

3. The identity view

One alternative explanation of what's going on in cases like the sea of faces case could explain correlation claims [C2] and [C3] simply by saying conscious perceptual attention and perceptual demonstrative thought are, in a sense, identical. To motivate this view, we could think back to chapter 1, §2. There I claimed there is a perfectly good sense in which we can consciously attend to an object just by consciously thinking about it. As M.G.F. Martin put it in the passage I quoted there:

In general, whatever we are prepared to call an object of thought—be it the things thought about, what one thinks about them, or the proposition one thinks in thinking these things—we can also take to be an object of attention. Conscious, active thought is simply a mode of attending to the subject matter of such thoughts (1997: 77).

Of course, in general, to consciously attend to an object in thought is not to think a perceptual demonstrative thought about that object. And, in general, to consciously attend to an object in thought is not to consciously *perceptually* attend to it. But we might think we can apply this model in the perceptual case and say: to consciously perceptually attend to an object is just to think some perceptually-based thought about the object (i.e. a perceptual demonstrative thought). On this view conscious perceptual attention is just a special mode of the kind of conscious attention we pay to objects simply by thinking about them: it's the mode of conscious attention we pay to objects when we think

specifically *perceptual demonstrative thoughts* about them. This view holds conscious attention and conscious thought are more or less the same thing, and that this is so for perceptual as well as non-perceptual forms of conscious attention. Filling this out in a bit more detail we might say, in the perceptual case, we consciously select or highlight objects in our experience by selecting those objects in perceptual demonstrative thought, and that, as a result of this, we come to have a distinctive attentive experience of those objects. Let us label this rival account or explanation of [C2] and [C3] the ‘identity view’.²⁴

The identity view could provide an explanation or account of why our correlation claims [C2] and [C3] seem to hold. If the identity view were correct, the kind of identificatory knowledge necessary for perceptual demonstrative thought about an object would equally be necessary for conscious perceptual attention to an object, so we get an explanation of why [C2] seems to hold. Also, the identity view clearly predicts that and explains how actually thinking a perceptual demonstrative thought entails the presence of conscious perceptual attention. It claims they’re just the same thing. So it also predicts and explains [C3]. Now the identity view might well have trouble accounting for [C4], but in §2 I argued we haven’t yet been given reason to think [C4] is true. Also notice that since the identity view claims conscious perceptual attention and perceptual demonstrative thought are identical it is, on the face of things at least, a genuine rival to and incompatible with [CT]. If conscious perceptual attention and perceptual demonstrative thought are identical then, on the face of things, they cannot be explanatorily related in the way [CT] claims.²⁵

²⁴ This kind of view is not completely without precedent in the philosophical literature on attention. Roughly similar views of conscious perceptual attention have recently been endorsed by, for example, James Stazicker (2011*b*) and Wayne Wu (2011*a*) (but not in the context of assessing Campbell’s sea of faces argument; these authors are more interested in accounting for the phenomenological effects of conscious perceptual attention on experience).

²⁵ Note there is certainly logical space for further rival accounts of what’s going on in cases like the sea of faces case. For example one might claim conscious perceptual attention and perceptual demonstrative thought are correlated (i.e. [C2] and [C3] hold) because they are just

How generally plausible is this identity view? Well the identity view faces two immediate objections. One objection claims there is something implausible about the identity view's account of perceptual demonstrative thought. The other objection claims there is something implausible about the identity view's account of conscious perceptual attention. These two objections reveal the precise form any identity view must take, if it is to be at all plausible, so they are worth considering in some detail.

4. Two objections

Objection 1 One way to frame the first objection is in terms of the identity view's picture of the temporal relation between perceptual demonstrative thought and conscious perceptual attention. Recall both the identity view and Campbell are committed to and are able to explain correlation claim [C3]:

[C3] If one thinks a perceptual demonstrative thought about an object, then one consciously perceptually attends to that object.

As formulated here [C3] essentially says: if you think a perceptual demonstrative thought about an object then conscious perceptual attention must be present at some point. But [C3] leaves open whether conscious perceptual attention must be present prior to the thought episode, simultaneous with the thought episode, or after the thought episode. With this in mind we can note the identity view and Campbell are each committed to different more specific versions of [C3]. The identity view is committed to:

two effects of a common cause, which are not otherwise causally or explanatorily related. This view is likely to claim some of the mechanisms that cause and underpin episodes of conscious perceptual attention and perceptual demonstrative thought are shared, such that episodes of perceptual demonstrative thought also give rise to episodes of conscious perceptual attention. The main problem with this 'common-cause view' is that it appears to give an unsatisfactory account of what conscious perceptual attention is. It appears to treat conscious perceptual attention as just a strange side-effect of perceptual demonstrative thought. It's reasonable to suggest this kind of view is puzzling, unsatisfactory and unmotivated: we don't generally think explanations that posit strange, epiphenomenal psychological phenomena are good explanations. For this reason I'll set aside the common-cause view in what follows and concentrate on [CT] and the identity view.

[C3-I] If one actually thinks a perceptual demonstrative thought about an object, then one consciously perceptually attends to that object *at the same time as one actually thinks the thought*.

Whereas Campbell is committed to the weaker claim:

[C3-C] If one actually thinks a perceptual demonstrative thought about an object, then one consciously perceptually attends to that object *either prior to the thought or at the same time as one actually thinks the thought*.²⁶

So one way to object to the identity view would be to claim we should prefer [C3-I] to [C3-C].

One consideration that may lead us to prefer [C3-C] to [C3-I] is the fact it is often said one can think a perceptual demonstrative thought about an object after it has disappeared from view and when it is not possible to consciously perceptually attend to the object (see, e.g., Russell 1918: 201, 203; 1984: 65-73ff.). If that is right, then [C3-I] cannot be true. For example, consider a case where from time t_1 - t_2 one sees a car zoom past, such that at t_2 the car disappears from view, and such that one begins to essay a perceptual demonstrative thought about the car at t_3 (some time shortly after t_2). Perhaps one thinks to oneself '*That was fast*'. Clearly one cannot consciously perceptually attend to the car in essaying this thought at t_3 . Insofar as conscious perceptual attention is involved in our essaying this thought ([C3] suggests it must be somehow), it seems such attention must be involved prior to one essaying the thought (i.e. some time between t_1 - t_2). This might lead us to think it is [C3-C] we should accept, and not [C3-I].

²⁶ If we think Campbell really intends the explanatory relation between conscious perceptual attention and knowledge of reference to be causal (see chapter 1, §3), and if we want to rule-out simultaneous causation, then Campbell may be committed to [C3-C] with only the first disjunct. This doesn't affect the argument below.

The obvious way to reply to this objection would be to claim the thought one would essay at t_3 is not really a perceptual demonstrative thought. We might try and claim the thought one would essay at t_3 is some kind of ‘backwards-looking’ demonstrative thought, distinct in kind from the ordinary perceptual demonstrative thought one could essay while the object of thought is perceived, such that we cannot assume, without some argument, that conscious perceptual attention bears the same relation to episodes of backwards-looking demonstrative thought and episodes of ordinary perceptual demonstrative thought. However to make this reply work the identity view would need to justify the claim that the ways in which we think of objects in the backwards-looking cases are relevantly different from the ways in which we think of objects when we think ordinary perceptual demonstrative thoughts on the basis of current perception. The identity view would need to justify the claim we have two different kinds of demonstrative thought here. How could we decide whether or not these claims are acceptable?

This raises some tricky questions about how we should carve up kinds of thought or ways of thinking. But one consideration that might help us here is the issue of when it is legitimate to ‘trade on the identity’ of an object in thought.²⁷ We trade on the identity of an object in thought when we make inferences from distinct episodes of thought about the object, without making any identity judgement. For example, consider the following inference:

- (1) Hesperus is *F*
- (2) Phosphorus is *G*

- (3) Something is both *F* and *G*

²⁷This phrase is actually Campbell’s (1987; 1994: 73-88). Note that Campbell himself doesn’t consider the identity view or this objection to it, and doesn’t discuss trading on identity in the context of defending what I’ve called [CT].

As it stands, it doesn't seem this inference is valid. To reach (3) from (1)-(2) it appears we need the extra identity judgement: 'Hesperus = Phosphorus'. As we might put it, it does not seem legitimate to trade on the identity of the object referred to by the token of 'Hesperus' in (1) and the object referred to by the token of 'Phosphorus' in (2) to reach (3). We can compare this inference with:

(4) Hesperus is *F*
(5) Hesperus is *G*

(6) Something is both *F* and *G*

This second inference does seem to be valid. It seems legitimate to trade on the identity of the object referred to by the tokens of 'Hesperus' in (4) and (5). That is, it seems legitimate to move from (4)-(5) to (6) in thought without making any identity judgement.

It could be objected these appearances are misleading and that, in fact, inference (4)-(6) may not be all that different from inference (1)-(3). For example we might claim that, strictly speaking, for argument (4)-(6) to be valid we really do need an identity premise, which may be implicit or suppressed because it is so trivial. So we'd need something like:

(4) Hesperus is *F*
(5) Hesperus is *G*
(ID) Hesperus = Hesperus

(6) Something is both *F* and *G*

But for this new inference to be valid we'd need to trade on the identity of the object referred to by one of the tokens of 'Hesperus' in (ID) and the object referred to by the token of 'Hesperus' in (4), and we'd need to trade on the identity of the object referred to by the other token of 'Hesperus' in (ID) and

the object referred to by the token of 'Hesperus' in (5). If we don't allow this trading on identity, then we'd need another pair of identity premises to make the inference valid. So it should be clear that if we don't allow ourselves to trade on identity in at least some cases then we'll soon face a regress. As such, it must sometimes be legitimate to trade on the identity of an object across distinct thought episodes.²⁸

This raises the question: *When* exactly is it legitimate to trade on the identity of an object in thought, given that it must sometimes be legitimate? A popular answer is it is legitimate to trade on the identity of an object in thought iff the object is thought of in the same way, under the same mode of presentation (Campbell 1987). This seems to be the natural way to explain the difference between inferences such as (1)-(3) and (4)-(6). Let us assume this is correct.

These ideas might help us decide whether ordinary perceptual demonstrative thought and backwards-looking demonstrative thought should count as relevantly different kinds of demonstrative thought. If it is legitimate to trade on the identity of an object across episodes of ordinary perceptual demonstrative thought and episodes of backwards-looking demonstrative thought then we might think it must be the object is being thought of in the same way, such that the subject is essaying the same kind of demonstrative thought with the same demonstrative content and concepts. If this were true the identity view may be in trouble. If ordinary perceptual demonstrative thought and backwards-looking demonstrative thought are really the same kind of demonstrative thought then we might think it would probably be implausible to claim they bear different relations to conscious perceptual attention. Since it's clearly not true conscious perceptual attention could be present at the same time as and could be identical to backwards-looking demonstrative thought, the argument goes, it will probably be implausible to

²⁸This kind of argument can be found in Campbell 1987: 275-276; cf. Fine 2007.

think conscious perceptual attention is always present at the same time as and is identical to ordinary perceptual demonstrative thought. Thus, the argument claims, we should reject [C3-I] and the identity view.

If all this were right the identity view would be committed to claiming it's not legitimate to trade on the identity of an object across episodes of ordinary perceptual demonstrative thought and episodes of backwards-looking demonstrative thought. But this seems implausible. Surely, in the case described above, one could trade on the identity of the car as it figures in an ordinary perceptual demonstrative thought episode (e.g. the judgement 'That's a Porsche', made while the car is still in view) and a backwards-looking demonstrative thought episode (e.g. the judgement 'That was going fast', made after the car has disappeared from view), to infer something like: 'That Porsche was going fast'. It's natural to think one could do this without having to judge the objects of thought are identical. This seems to be simply manifest or given to the subject.

However I want to argue the identity theorist can respond to objection 1 without legislating against this kind of trading on identity. To see this let us distinguish more carefully between: (i) episodes of thinking, (ii) the thought contents or propositional objects entertained during such episodes; (iii) the psychological capacities exercised in actualising such thought episodes. The trading on identity argument seems to show episodes of ordinary perceptual demonstrative thought and episodes of backwards-looking demonstrative thought can involve a subject entertaining the very same demonstrative thought contents (and deploying the same demonstrative concepts). Let us accept this is so. The objection against the identity view claims this means episodes of backwards-looking demonstrative thought and episodes of ordinary perceptual demonstrative thought are thought episodes of the same kind and involve the same way of thinking about an object. The objection then claims this means episodes of backwards-looking demonstrative thought and episodes

of ordinary perceptual demonstrative thought must be actualised by the same or similar psychological capacities, i.e. must bear the same relation to conscious perceptual attention.

We can see the argument relies on the following general principles:

[P1] If thought episodes e_1 and e_2 share the same thought contents, then e_1 and e_2 are thought episodes of the same kind.

[P2] If thought episodes e_1 and e_2 are thought episodes of the same kind, then e_1 and e_2 are actualised by the same psychological capacities.

Both [P1] and [P2] have some plausibility. However I want to suggest it's doubtful [P1] and [P2] are both true on a single understanding of 'thought episode of the same kind'. I suggest [P1] is true only when we individuate kinds of thought episode by the contents entertained or concepts deployed during such thought episodes, and that [P2] is true only when we individuate kinds of thought episode by the psychological capacities exercised in actualising the thought episode. One way to bring this out is to note that if [P1] and [P2] were both true on a single understanding of 'thought episode of the same kind', then the following would be true:

[P3] If thought episodes e_1 and e_2 are actualised by different psychological capacities, then e_1 and e_2 have different thought contents.

But there's reason to think [P3] is implausible. If the line of thought behind this objection against the identity view leads to [P3] then it threatens to prove too much. This is because it's often argued that if we are to account for our general inferential capabilities—for example, how we trade on the identity of objects of thought across time and across different perceptual modalities, and how we manage to think and keep track of indexical thoughts in different contexts—then we must allow we can sometimes entertain the same thought contents at

different times or in different contexts, and do so by exercising what seem to be very different sets of psychological capacities (see, e.g., Campbell 1987, 1996; Evans 1985: 306-311; Frege 1956: 296ff.; Prosser 2005; Recanati 2012: 81-88ff.).

If these ideas are correct then we should reject [P3]: we should allow that different thought episodes that involve a subject entertaining identical thought contents can be actualised by different sets of psychological capacities.²⁹ That means there's reason to doubt [P1] and [P2] are true under a single understanding of 'thought episode of the same kind'. And if that's right objection 1 fails: it would be open to the identity view to claim episodes of ordinary perceptual demonstrative thought and episodes of backwards-looking demonstrative thought can be actualised by different sets of psychological capacities, i.e. can bear different relations to conscious perceptual attention, even when these thought episodes share the very same demonstrative content and involve a subject deploying the very same demonstrative concepts.

That said, objection 1 does reveal some commitments of the identity view. If any form of the identity view is to be plausible, it must claim episodes of perceptual demonstrative thought differ from episodes of other kinds of demonstrative thought (e.g. backwards-looking demonstrative thought), not in virtue of the contents entertained or concepts deployed during such thought episodes, but rather in virtue of the different psychological capacities that

²⁹Of course, all this does rather depend on how one chooses to individuate psychological capacities. In response to these points, an objector might try and insist that we should always individuate the psychological capacities exercised during episodes of thinking by the contents entertained during such episodes. But then: (a) In light of the brief points above about cross-temporal and cross-modal thought, it's unclear to me this would leave us with a particularly natural picture of what a psychological capacity is and how such capacities are individuated (for example, we'd probably have to say that thought episodes occurring on different days—e.g. some involving memory and some not involving memory—were actualised by the same psychological capacities); (b) it's unclear the objector could then insist that episodes of backwards looking demonstrative thought and episodes of ordinary perceptual demonstrative thought involve a subject exercising different psychological capacities, despite their bearing different relations to conscious perceptual attention. But I won't pursue these difficult issues any further here.

actualise such thought episodes. So the identity view should be understood as claiming episodes of perceptual demonstrative thought are in part actualised by conscious perceptual attention, but also that one could think another kind of demonstrative thought with the very same content when one is not currently consciously perceptually attending to the object.³⁰ However it's unclear, for all that's been said so far, that these commitments of the identity view are particularly problematic. For all that's been said so far, this seems to be a viable view of what's distinctive about perceptual demonstrative thought.³¹

Objection 2 One way to frame the second objection against the identity view is to note the identity view is, on the face of things, committed to an extra correlation claim which does not seem to be supported by the sea of faces argument and to which [CT] is not committed. This extra correlation claim is the converse of correlation claim [C3]. It says:

[C5] If one consciously perceptually attends to an object, then one thinks a perceptual demonstrative thought about that object.

We might ask: Is it not obviously possible to consciously perceptually attend to an object, in certain contexts, without thinking any kind of thought about that object? If it is possible then, insofar as the identity view really is committed to [C5], the identity view should be rejected.

One way to reply to this objection would be to try to deny commitment to [C5] is really problematic. One might just insist that, perhaps despite appearances to the contrary, it is not possible to consciously perceptually attend to an object without thereby thinking at least *some* kind of, perhaps relatively 'low-level', perceptual demonstrative thought about that object. For example, the identity

³⁰ If we think back to chapter 1, §3 this means one will have to deny principle [Q] (but not necessarily principle [P]).

³¹ Note that it's perfectly consistent with the characterisation of perceptual demonstrative thought I gave in chapter 1, §3.

view might appeal to perceptual demonstrative thoughts or judgements that, in some sense, merely categorize an object or register an object's presence in one's environment, and perhaps lack complex propositional structure.

But we can push this objection harder against the identity view. We can point to some concrete cases in which it seems a subject is clearly consciously perceptually attending to an object (or some objects), but in which it seems implausible, or rather desperate, to insist a subject is thinking any thought about the object (or objects). For example, we might consider a case in which a subject is instructed to divide her attention across several items in a display, hold her attention on those items over a period of time and report any changes in those particular items as quickly as possible, while ignoring any distractor items in the display.³² It appears this is a genuine case of conscious perceptual attention: the subject is instructed to perceptually attend, she would describe herself as perceptually attending, and she consciously experiences the items she is attending to. But it doesn't seem plausible to claim the subject is attending by thinking perceptual demonstrative thoughts about the items in the display. For example, it doesn't seem the subject must be thinking some constant stream or babble of perceptual demonstrative thoughts about all the items she attends to while she monitors them. Also, it seems open that the subject might choose to make a perceptual demonstrative judgement about one particular item in the display (e.g. in response to a change in that item). So it doesn't seem she must be already engaged in perceptual demonstrative thought about all the items she is attending to. It just doesn't seem plausible conscious perceptual attention entails perceptual demonstrative thought in these kinds of cases. If that's right then commitment to [C5] really is problematic.

³² In the empirical literature it is now generally thought it is possible—albeit difficult—for subjects to deliberately divide their visual attention across noncontiguous regions of the visual field and even across different visual objects (see the experiments described in, e.g., Duncan 1984; Huang and Pashler 2007; Pashler 1998: 101-167; Scholl 2001).

This objection is a potentially serious one. But I want to suggest there may be room for the identity view to reply by denying it is really committed to [C5]. I suggest objection 2 reveals that, if the identity view is to be at all plausible, it must take its identity claim to apply to only one particular kind of conscious perceptual attention. This is because we've seen there are at least some things it is very natural to call 'conscious perceptual attention' that cannot be identical to perceptual demonstrative thought. So to survive this objection the identity view must claim there are different kinds of conscious perceptual attention and give up on the idea that conscious perceptual attention *in thought*—i.e. the kind it would say is identical to perceptual demonstrative thought—is the only kind of conscious perceptual attention there is. But if there are different kinds of conscious perceptual attention then objection 2 needn't be especially worrying for the identity view: it can simply deny it is committed to [C5] (at least, when [C5] is taken to apply to conscious perceptual attention *in general*).

Now if we admit there may be different kinds of conscious perceptual attention, then discussion of these issues is going to become somewhat more complex and delicate, and there are going to be different versions of the identity view. But notice one version of the identity view could admit [C5] is false, in this way, while remaining a genuine rival to [CT] and while still giving an alternative account of what is going on in cases like the sea of faces case. To see this note that, given objection 2, any plausible version of the identity view is minimally committed to the following three claims:

- (a) There are different kinds of conscious perceptual attention.
- (b) At least one kind of conscious perceptual attention is identical to perceptual demonstrative thought.
- (c) Some kinds of conscious perceptual attention are not identical to perceptual demonstrative thought.

And any identity view will also clearly hold that:

(d) Any kinds of conscious perceptual attention that are identical to perceptual demonstrative thought don't bear an explanatory relation to perceptual demonstrative thought.

But all this leaves open whether any of the kinds of conscious perceptual attention mentioned in (c) bear an explanatory relation to perceptual demonstrative thought. This means we have at least two different versions of the identity view. The first version of the identity view holds, in addition to (a)-(d), that:

(e) The kinds of conscious perceptual attention that are not identical to perceptual demonstrative thought do not bear an explanatory relation to perceptual demonstrative thought.

This version of the identity view is completely incompatible with [CT]. According to it, no kind of conscious perceptual attention is explanatorily related to perceptual demonstrative thought. This version of the identity view will claim we can fully explain the data from Campbell's sea of faces case—that is, why [C2] and [C3] seem to hold—just by appealing to the kind of conscious perceptual attention that *is* identical to perceptual demonstrative thought (see the account in §3 above). So it will claim we haven't been given reason to think any of the other kinds of conscious perceptual attention, not identical to perceptual demonstrative thought, are explanatorily related to, or even correlated with, perceptual demonstrative thought. In contrast the second version of the identity view holds, in addition to (a)-(d), that:

(e*) At least one of the kinds of conscious perceptual attention that are not identical to perceptual demonstrative thought *does* bear an explanatory relation to perceptual demonstrative thought.

This version of the identity view is, we might think, compatible with the spirit of [CT]. Campbell's Thesis will be vindicated to some extent: *some form* of conscious perceptual attention will explain our capacities for perceptual demonstrative thought.³³

The key point here is that, for all that's been said so far, the sea of faces argument completely underdetermines which version of the identity view is correct (if either is). If that's right then we might think there is a version of the identity view, the first version, that: **(i)** could reply to objection 2 (by claiming there are different kinds of conscious perceptual attention and thereby deny commitment to [C5]); **(ii)** could account for [C2] and [C3]; **(iii)** is incompatible with even the spirit of Campbell's Thesis.

However for this kind of response to objection 2 to be at all satisfying, we'd have to provide some motivation for and defense of the view there really are different kinds of conscious perceptual attention, or that there are different things that we do when we consciously perceptually attend. In fact, we'd probably have to motivate the view there are some quite *radically* different kinds of conscious perceptual attention (or radically different things that we do when we consciously perceptually attend). I say this because there doesn't seem to be much in common between: **(a)** what we do when we divide our attention across several items so as to visually monitor them (as in the example above); **(b)** what we do when we consciously perceptually attend to objects by thinking perceptual demonstrative thoughts about them. So for this reply to objection 2 to work, we'd probably have to motivate and defend a quite fragmentary view of conscious perceptual attention, according to which there are an assortment of different conscious perceptual capacities, processes or activities we are inclined to call 'attention' or 'attentive', with different functions and explanatory roles, and which involve a subject exercising rather different

³³ I discuss how much this preserves the spirit of [CT] in §5 below.

psychological capacities (e.g., perhaps, conceptual vs. non-conceptual capacities). What might motivate such a ‘disunity view’ of conscious perceptual attention? I think there are two sets of considerations we could appeal to here.

First, such a disunity view might be motivated by some apparent disunity of perceptual attention at the level of information-processing mechanisms. In the empirical literature on perceptual attention it is not uncommon to find some uncertainty and cautiousness, and even a degree of scepticism, with respect to what is really picked out by ‘attention’ or ‘attentive’ (e.g. a particular selective mechanism or system of control, a particular type of or stage in perceptual processing, a particular limited resource drawn on in perceptual processing, etc.). For example, consider the following passage from Alan Allport:

Even a brief survey of the heterogeneity and functional separability of different components of spatial and nonspatial attentional control prompts the conclusion that, qua causal mechanism, *there can be no such thing as attention*. There is no one uniform computational function, or mental operation (in general no one causal mechanism) to which all so-called attentional phenomena can be attributed. On the contrary, there is a rich diversity of neuropsychological control mechanisms of many different kinds (and no doubt many yet to be discovered) from whose cooperative and competitive interactions emerge the behavioral manifestations of attention [of which there is a “vast range”] (1993: 203-204).

We should admit Allport is probably a particularly sceptical voice in the empirical literature. But other writers have expressed similar concerns. For example, the generally much less sceptical Harold Pashler explains the structure of his book on attention with the following highly cautionary remarks:

The dangers of taking substantive words from ordinary language and assuming a corresponding entity have been noticed for a long time, of course; philosophers at least as far back as Bacon have warned against assuming that where there is a word there must be a thing (this is often called reification) ... To avoid these pitfalls, the word attention is used sparingly in this book ... In chapters 2 through 4 ... the use of ‘attention’ will be restricted to describing the field of study or the instructions given to the subject ... ‘Attention’ will not, however, be used to refer to a putative

internal process or mechanism ... In the fifth and sixth chapters the role of attention as a theoretical construct will be considered explicitly and critically, and a framework postulating several different attention mechanisms will emerge (1998: 3-5).

Also, John Duncan begins his review of recent work on the brain mechanisms of attention as follows:

As Wittgenstein argued, there are many concepts that cannot be given a formal definition. No single rule, for example, can define what does and does not count as 'a game'. Instead games form a family, with many different resemblances between one member and another, but no defining characteristic shared by all. If this applies to games, certainly it applies to psychological concepts like attention. Both in behaviour and neurophysiology, there are many studies of 'attentional' phenomena. Though doubtless these have family resemblances, it seems unlikely that they share any one defining component or ingredient (2006: 2-3).

Finally, consider the following from Raja Parasuraman:

The central thesis [of this collection of empirical papers on attention] is that attention is not a single entity but a name given to a finite set of brain processes that can interact mutually and with other brain processes in the performance of different perceptual, cognitive, and motor tasks. At the psychological level attention is not any one thing ... There cannot be a single definition of, and probably not a single overarching theory of attention (1998: 4).

It's not at all uncommon to find remarks like these in empirical work on attention and attentional mechanisms.³⁴ How might this bear on a disunity view?

Well we must make clear the disunity view I'm discussing here is a thesis about *conscious* perceptual attention. As stressed in chapter 1: §2, this is supposed to be something that occurs at the personal level; it is supposed to be familiar to introspection and part of our commonsense psychology. And it's reasonable to suggest unity or disunity at the level of information-processing doesn't straightforwardly or directly bear on unity or disunity at the personal level. As

³⁴ For other examples see, e.g., Allport 2011; Chun *et al.* 2011; Driver 2001: 73ff.; Johnston and Dark 1986; Moray 1968; Ruff 2011.

such, the alleged disunity of attentional mechanisms certainly wouldn't entail a personal level disunity view: we might think conscious perceptual attention could be a unified psychological phenomenon despite considerable disunity at the level of sub-personal mechanisms.³⁵ Nonetheless, I suggest this apparent disunity at the level of sub-personal mechanisms, and especially the diversity of the functions attentional mechanisms and processes are said to carry out, could provide at least some cogent motivation for a disunity view; especially when we note the uncertainty and cautiousness many scientists seem to display with respect to what they are picking out when they study attention, and whether they are picking out any single unified thing. Furthermore the quotations above suggest we can rest assured that the scepticism expressed by disunity views of conscious perceptual attention doesn't conflict with the way in which many scientists seem to think about attention. It doesn't seem to be a presupposition of much of the empirical work on attention that there is a unified psychological phenomenon here.³⁶

³⁵ In fact, plenty of philosophers who believe in a unified conscious attention, with a single explanatory or functional role, recognise this apparent disunity of attentional mechanisms, and suggest we might find some higher-level unity by claiming these attentional mechanisms are all somehow explanatorily related to—e.g. they underpin or realize—a single, unified personal level phenomenon (see, e.g., Watzl 2011; Smithies 2011a; Stazicker 2011b; Wu 2011b)

³⁶ In reply to these kinds of points a defender of a unified view of conscious perceptual attention could point to some recent and impressive research that may show there is more unity at the level of attentional mechanisms than the psychologists I quoted above seem to think. Liqiang Huang and his colleagues (2012) have recently tried to measure the interrelations between 16 different experimental paradigms used to study and manipulate perceptual attention, partly out of a worry that these diverse paradigms may not be studying or manipulating the same thing (2012: 414ff.). Huang tried to probe whether this is so by comparing the performance of hundreds of individual subjects across the 16 different experimental paradigms (that is, by making intra-subject, rather than inter-subject comparisons). He found that individual subjects tend to perform at the same level across most of the experimental paradigms; e.g. subjects who perform well in one experiment tend to perform well on most of the experiments; subjects who perform badly in one experiment tend to perform badly in most of the other experiments; etc. (see table 2, 423). Huang's statistical analysis of his results suggests this means it's likely there is a single factor (e.g. an 'attention' factor) underlying and explaining the subjects' performance levels (424-226). And we might think this suggests a unified set of attentional mechanisms are involved in most of these diverse instances of perceptual attention. If this were not the case we might expect to find more variation in the performance of individual subjects across the 16 experimental paradigms. That said, as Huang points out, there are some limitations to his study, which is the first of its kind

A second motivation for a disunity view could appeal more directly to some apparent disunity—as well as unclarity and indeterminacy—in our ordinary and philosophical thought about personal level conscious perceptual attention. It seems ‘conscious perceptual attention’ can be legitimately used to pick out a number of rather different things. For example, philosophers have recently described conscious perceptual attention as:

(1) a capacity to single-out, highlight or lock onto particular objects so as to set those particular objects as the targets of one’s thoughts or actions, and also keep track of those objects over periods of time (Campbell 2002; Roessler 2011: 280-281; Smithies 2011*b*: 30ff.; Wu 2011*b*).

(2) something that provides some organization or narrative structure to conscious experiences, without which consciousness would be “a gray chaotic indiscriminateness, impossible for us to even conceive” (James 1890: 403. Also see C. Evans 1970: 81; O’Shaughnessy 2000: 379ff.; Watzl 2010).

(3) a kind of limited resource that is used up by and that we distribute between conscious experiences. As Brian O’Shaughnessy puts it, we often think of attention as a kind of container, ‘psychic space’ or ‘mental lifeblood’, such that conscious experiences, whether perceptual or non-perceptual, “necessitate a measure of attention if they are to so much as *exist*” (2000: 277 and 275-290).

(4) something that allows us to notice or register things about our environment that we wouldn’t have noticed or registered had we not

(426-427). In particular, performance in the attentional tasks was also correlated with performance in a general intelligence test. This opens up the possibility that Huang’s data might be explained by subjects’ general intelligence (what’s called the ‘g factor’) rather than any single attention factor. As such it’s unclear how challenging these experiments are to the point I’m trying to make here; although I should certainly make clear the disunified view of attentional mechanisms is not a universally held view.

attended. For example by: **(a)** determining which aspects of the contents of our perceptual experiences are ‘cognitively accessible’; that is to say, available for report, judgement or storage in memory (Mole 2008; Smithies 2011a; Stazicker 2011a); or by: **(b)** modulating the contents of visual experience themselves; that is to say, by determining which objects and properties we visually experience, and at which levels of determinacy (Stazicker 2011b; Tye 2010).

(5) A capacity to actively and agentially look and watch (and also to look out for and watch out for), rather than merely passively see (O’Shaughnessy 2000: 379-405; Crowther 2009a, 2009b; Roessler 1999).

These accounts of what conscious perceptual attention is, and what conscious perceptual attention does, are often presented as if they are in competition with each other. But we might think there could be some truth to each account. They all seem to describe capacities or processes that could be legitimately labelled ‘conscious perceptual attention’. Also notice that, on the face of things, (1)-(5) seem to describe rather different capacities or processes, that have rather different functions or explanatory roles. So we can see how a disunity view might reasonably be motivated to claim there are different kinds of conscious perceptual attention, with different explanatory or functional roles, which involve a subject exercising different psychological capacities. That is, we can see how we might be motivated to think there is no single thing we do when we consciously perceptually attend, and think the label ‘conscious perceptual attention’ collects together a range of capacities or processes that are only loosely related, insofar as they involve some element of selectivity. That said, of course, merely pointing out that (1)-(5) can all legitimately be labeled ‘conscious perceptual attention’ doesn’t *entail* a disunity view. It could be that (1)-(5) are all diverse symptoms of a single unified psychological phenomenon (or a single thing we do).

Now it's certainly true that most philosophers working on attention have suggested we should adopt a largely unified view of conscious perceptual attention. To make some progress here it will be pertinent to ask: Why have most philosophers taken this view despite considerable apparent disunity? I think a major reason is these philosophers think we *ordinarily* think of conscious perceptual attention as a theoretically significant and unified faculty of mind. They seem to think it is phenomenologically or introspectively apparent to us that there is just one thing we do when we consciously perceptually attend. For example, a defender of a unified view of conscious perceptual attention might claim that when someone asks us to attend to an object, we generally know exactly what they're asking us to do, and that it's not as if we generally need to ask: '*Attend to the object in which sense?*'. Another way to put this point is to say we have a single term 'attention' (which can be qualified with 'perceptual') as part of our commonsense psychological vocabulary, but we don't have lots of different terms for what the disunity view claims are the different disunified kinds of conscious perceptual attention. But in response to these kinds of points we might question whether, and warn against exaggerating the extent to which, our ordinary notion of attention is precise, clear and determinate enough to take any stand on the issue of whether conscious perceptual attention is a unity in the sense at issue here. For example, we could say the fact we only have a single term 'attention' (or 'conscious perceptual attention') reflects this unclarity, vagueness and indeterminacy in our commonsense psychology of attention, more than it reflects any deep commonsense commitment to the unity of conscious perceptual attention.

I think it's actually extremely difficult to know how to measure whether conscious perceptual attention is a unity in the sense at issue here. We've seen there seem to be things to be said both for and against a disunity view. The modest conclusion I want to draw here is that it's reasonable to think it's an open question whether conscious perceptual attention is disunified enough for

a version of the identity view to reply to objection 2 (by denying commitment to [C5]); also that we can see how one might be cogently motivated to think conscious perceptual attention *is* disunified in the sense the identity view requires. I'll discuss the implications of this modest conclusion in the next section.

To wrap up this long section: I've argued that a version of the identity view could reply to both objections. It could reply to objection 1 by denying that all episodes of perceptual demonstrative thought have a distinctive kind of thought content. And it could reply to objection 2 by taking a disunified view of conscious perceptual attention. If it's acceptable for a version of the identity view to claim these things—I suggested the reply to objection 1 is acceptable, but left it open whether the reply to objection 2 is acceptable—then I submit there is at least one viable explanation of why [C2] and [C3] seem to hold which rejects [CT].

5. Conclusions and looking ahead

In this chapter I've argued the sea of faces argument is in one sense successful. It succeeds in showing—via correlation claims [C2] and [C3]—that there are some very intimate connections between conscious perceptual attention and perceptual demonstrative thought. But I've also tried to argue the argument may underdetermine whether Campbell paints the correct picture of this relation. This is because a version of the identity view may be able to account for these correlations between conscious perceptual attention and perceptual demonstrative thought whilst rejecting [CT]. Further to this, I've tried to argue that whether or not the sea of faces argument is in fact successful in establishing [CT] really turns on how unified conscious perceptual attention is. This is because the identity view is plausible only if conscious perceptual attention is disunified (in the sense that there are different kinds of conscious perceptual attention, with different explanatory or functional roles, which

involve a subject exercising different psychological capacities).³⁷ We can sum up these results with the following pair of conditionals:

(1) If conscious perceptual attention is a unity in the relevant sense, then the sea of faces argument is likely to be successful in establishing [CT] (at least: there are no obvious rival explanations of why correlation claims [C2] and [C3] seem to hold).

(2) If conscious perceptual attention is not a unity in the relevant sense, then the sea of faces argument doesn't do enough to show that [CT] is correct. There is at least one viable explanation of why [C2] and [C3] seem to hold that rejects [CT] (i.e. a version of the identity view).

I also argued that it's possible to motivate and defend the view that conscious perceptual attention is not a unity in the relevant sense (although it's difficult to know how to decide the issue for certain). If that's right then a defender of [CT] will either have to: (a) try to establish that conscious perceptual attention *is* a unity in the relevant sense; or (b) find some alternative argument for [CT]. Given what was said at the end of §4 about the difficulty in establishing unity or disunity here, I suggest strategy (b) is the most promising, and this will be the focus of the next chapter.

But there is a complication here. Notice that if conscious perceptual attention is not a unity in the sense outlined above, then [CT] would probably need to be reformulated. This is because Campbell's view, as I formulated it in chapter 1, appears to hold there is a general explanatory relation between two unified phenomena: conscious perceptual attention on the one hand, and perceptual

³⁷In fact, more generally, if conscious attention is disunified then the sea of faces argument is likely to be problematic anyway. If there are lots of different kinds of conscious perceptual attention then, when considering cases like the sea of faces case, it may be unclear exactly which kinds of attention we are tracking and whether we are tracking the same kinds across different instances. This would probably make generalising from the sea of faces case more problematic than the argument from §§1-2 of this chapter supposes.

demonstrative thought on the other. It seems to be an unstated presupposition of Campbell's view that conscious perceptual attention is a unity (in something like the sense outlined above). But, I suggest, if it turned out conscious perceptual attention wasn't a unity in the sense outlined above, then [CT] could be reformulated in a way that preserves the spirit of the view. It can be reformulated so it claims:

[CT]* At least one kind of conscious perceptual attention to an object explains how we are able to think perceptual demonstrative thoughts about that object, and at least one kind of conscious perceptual attention to an object is an essential part of this explanatory story, such that it is necessary for perceptual demonstrative thought about that object.

This, I suggest, is only a very minor revision to [CT] (except that admitting conscious perceptual attention may be disunified somewhat undermines Campbell's sea of faces argument). This is because, as mentioned in chapter 1 (§5), there is something somewhat schematic or programmatic at the core of Campbell's view of these issues. Campbell's wider project and point is to say that some conscious, perceptual, non-conceptual faculty explains our most basic capacities to engage in conceptual thought by providing us with knowledge of reference. I mentioned that, on one way of reading Campbell, it doesn't actually matter a huge amount what plays this role, e.g. whether it be conscious perceptual attention as a unified psychological kind, or some particular type of conscious perceptual attention. In fact, as we saw in chapter 1, it can sometimes seem as if Campbell doesn't have a huge amount to say about why it should be *conscious perceptual attention*, in particular, that plays this role, except that it is a promising candidate (and some alternatives have been ruled out).

If all this is right, then the key question for consideration in the next chapter is:

Is there some other argument that can convince us we should accept [CT]*, which doesn't rely upon the unity of conscious perceptual attention?

CHAPTER III: THE EXPLANATORY DEMAND

1. The explanatory demand argument

We've just seen that if we accept the possibility that conscious perceptual attention may be disunified in the sense discussed in chapter 2, then the sea of faces argument is unsuccessful, and we'll need a new argument for [CT]*. I think we can extract another argument from *Reference and Consciousness* and some of Campbell's other work that doesn't rely so much on the unity of conscious perceptual attention. The argument is not explicitly stated, but I think it's in the background of some of what Campbell says about the relation between conscious perceptual attention and perceptual demonstrative thought. The basic idea is that there is an explanatory demand, relating to our abilities to think perceptual demonstrative thoughts about objects, which cannot be met by any position that rejects [CT]*. The idea is that if we reject the claim that some form of conscious perceptual attention explains our abilities to think perceptual demonstrative thoughts, then it will be incumbent on us to say what *does* explain them. The argument then claims that any position that rejects [CT]* cannot give a satisfactory answer to this explanatory demand. I'll frame the rest of my discussion in the thesis around this explanatory demand argument (as I'll call it) and spend most of the rest of this thesis discussing how we might develop the argument. First I'll set out the core argument in a bit more detail.

One way to fill out the argument is to proceed in three stages. The first stage points out there must be some interesting and important psychological antecedents to perceptual demonstrative thought that explain how such thought comes about. These psychological antecedents must, for example, demonstrate, select or lock onto an object, in a way that allows the subject to

individuate and track the object, and in a way that determines which object the subject's thought is about. These explanatory antecedents must, as it were, get the object 'into' the subject's thought, in virtue of the subject's perceptual relation to the object. In Campbell's own terms these selective psychological antecedents to perceptual demonstrative thought provide us with 'knowledge of reference'. The second stage of the argument points out that, if these psychological antecedents to perceptual demonstrative thought are to play this important explanatory role, then they must have a certain profile: they must be largely made up of *selective* mechanisms or processes. After all, we've said they must select or lock on to the object of thought, on the basis of the subject's perceptual relation to the object, and determine which object, out of many, the subject's thought is about. The third stage of the argument claims that conscious perceptual attention is the only promising candidate that fits this profile and can play this role. This is because it doesn't seem possible to say that *some* conscious, personal level selective mechanism provides us with knowledge of reference in this way, but deny that thing is a form of conscious perceptual attention: it's difficult to say what a conscious personal level mechanism that selects or locks onto particular objects, on the basis of a subject's perceptual relation to those objects, could be if not a form of conscious perceptual attention. It's reasonable to suggest that any conscious, personal level process or capacity that selects objects in this way *would just be* a form of conscious perceptual attention. So, the argument concludes that anyone who tries to reject [CT]*—e.g. the identity view—either: **(a)** fails to give a satisfactory account of what explains our capacities for perceptual demonstrative thought; or **(b)** ends up giving conscious perceptual attention an essential explanatory role with respect our perceptual demonstrative thoughts after all (and thus ends up accepting [CT]*).

I suggest we should agree with most of what the explanatory demand argument is claiming here. But I also want to suggest there is a suppressed assumption or

premise at work in it. The suppressed assumption or premise is that the selective mechanisms or processes that play the role described in stage one of the argument are *conscious* mechanisms or processes that operate at the personal level. We should agree a form of conscious perceptual attention is the only conscious or personal level psychological phenomenon that could fit the profile described in stage two of the argument. But that's not to say a form of conscious perceptual attention is the only psychological phenomenon that could fit this profile or play this role. If the selective psychological antecedents to perceptual demonstrative thought could consist only in unconscious mechanisms, which occur at the level of information-processing, then the argument fails. It would be possible to meet the explanatory demand without appeal to any form of *conscious* perceptual attention. So, I suggest, whether or not our explanatory demand argument works is going to turn on whether:

(i) The selective psychological antecedents to perceptual demonstrative thought—those that provide us with knowledge of reference—must include conscious processes or mechanisms (in which case I've argued they must include some form of conscious perceptual attention and [CT]* seems inescapable);

or whether:

(ii) The selective psychological antecedents to perceptual demonstrative thought—those that provide us with knowledge of reference—could be made up of unconscious mechanisms which occur at the level of perceptual information-processing (in which case the explanatory demand argument is unsuccessful).

Now it might be objected here that it is simply obvious that such subpersonal and unconscious mechanisms could not, on their own, provide us with anything worthy of the label *knowledge* of reference. It might be suggested

subpersonal and unconscious mechanisms are just the wrong kind of thing, occurring at the wrong level of explanation, to directly cause or constitute such knowledge. But I want to suggest this is not so. Recall that sometimes Campbell operates with a really rather thin or programmatic understanding of what knowledge of reference is. He often seems to give little more than a functional characterization: knowledge of reference is whatever causes and justifies the pattern of use we make with a term or concept. It seems that, as long as something plays this causing and justifying role, then the subject has knowledge of reference (see discussion in chapter 1, §4). I suggest that if this is all there is to knowledge of reference then it's not at all obvious why this role could not be played by unconscious information-processing mechanisms. On the face of things, the fact that a determinate object has been selected in a subject's perceptual system *could* cause and justify the pattern of use a subject makes with a perceptual demonstrative term or concept, given that, as a result of this selection, the subject's pattern of use is suitably sensitive to how things are with that particular object.

Now we also saw Campbell sometimes operates with a 'thicker' or more intuitive understanding of knowledge of reference; i.e. something closer to 'knowing which object a term or concept refers to' in a colloquial or ordinary sense (see, e.g., 2002: 14). Perhaps it's plausible that *this* kind of knowledge could not be caused or constituted by unconscious information-processing mechanisms. But the problem here is that, if Campbell wants to operate with this thicker notion of 'knowledge of reference' in his arguments, then we'd need from him: (a) some more precise account of exactly when we have this kind of knowledge (i.e. when we count as 'knowing which' object is in question); and (b) some argument that knowledge of reference in this sense really is necessary for perceptual demonstrative thought about an object. But I suggest we'll get neither from Campbell. We saw he's unwilling to say in detail what this kind of knowledge consists in, and, as we saw, there's reason to think it's extremely

difficult to give such an account or argument.³⁸ So we can construct something of a dilemma for this objection. On one horn: if we operate with a the intuitive or colloquial construal of knowledge of reference, then it may be plausible that subpersonal, unconscious mechanisms could not, on their own, provide us with knowledge of reference. But it's not obvious why we should think knowledge of reference (in this sense) really is required for perceptual demonstrative thought. On the other horn: if we operate with a 'thin', technical or functional construal of knowledge of reference, then it may be plausible that knowledge of reference really is required for perceptual demonstrative thought (again, see chapter 1, §4). But I suggested it's not obvious why knowledge of reference (in this sense) could not be provided by something other than a form of *conscious* perceptual attention. So I submit this objection is unsuccessful: it's really an open question whether knowledge of reference (properly understood) could be provided by unconscious information-processing mechanisms; we'd need some substantial argument if we were to be convinced this is not possible.

In response to these kinds of points an objector might claim: Regardless of how we precisely formulate 'knowledge of reference', Campbell's sea of faces case, discussed at length in chapter 2, already shows us that unconscious selective mechanisms are not sufficient for such knowledge of reference and can't explain our abilities to think perceptual demonstrative thoughts. Recall that in the sea of faces case we stipulated that the subject H doesn't consciously perceptually attend to the woman she is being asked about, but has the ability to answer questions about and act with respect to the woman. The natural

³⁸ See discussion in chapter 1, §4. Recall that even Gareth Evans, who is a major proponent of 'knowing which' requirements on thought about objects, admits the requirement is extremely difficult to make precise (1982: 89-92). Evans ends up construing 'knowing which' as having 'discriminating knowledge'. This means "the subject must have the capacity to distinguish the object of his judgement from all other things" (1982: 89). Detailed discussion of Evans would take us too far afield, but on the face of things it's not obvious why this kind of practical discriminating capacity—e.g. the capacity to locate an object in space in the case of perceptual demonstrative thought—could not be provided by unconscious information-processing mechanisms.

explanation of H's abilities here is that, somehow, her visual system has selected and locked onto the woman in question, and is feeding her information to inform her reports and set the parameters for her actions. But, we saw, it seems natural to think that H can't think perceptual demonstrative thoughts about the woman in question. Doesn't this already show us that unconscious selective mechanisms are not sufficient for the kind of knowledge necessary to think perceptual demonstrative thoughts? I suggest not. In chapter 2 I argued at some length that the sea of faces case doesn't do enough to show that, in every case, knowledge of reference with respect to an object entails conscious perceptual attention to that object. So it doesn't do enough, on its own, to show unconscious selective mechanisms are not sufficient for knowledge of reference. If that's right, we'll need to appeal to further considerations, beyond cases like the sea of faces case, if we want to make the explanatory demand argument work.

The important result of this section is that those who reject the reformulation version of Campbell's Thesis (i.e. [CT]*) are committed to holding that the selective psychological antecedents to perceptual demonstrative thought, which explain how we are able to latch onto perceived objects in thought, are unconscious information-processing mechanisms. The question I want to pursue in the remainder of this chapter is: What reason, if any, is there to think this commitment really is a problematic one? I'll start by looking at what I think is Campbell's own answer to this question (§2), and then I'll start to develop my own answer (§§3-4).

2. The targeting-setting argument

I've just argued that those who reject [CT]* need to hold that the selective psychological antecedents to perceptual demonstrative thought are wholly made up of unconscious information-processing mechanisms, and that those who accept [CT]* will hold these psychological antecedents must include

conscious, personal level processes or capacities. I've suggested which position we should accept is likely to turn on these kinds of issues. But it's important to note none of this entails those who accept [CT]* must deny unconscious information-processing mechanisms play an important and substantial role in explaining how we are able to latch onto objects in perceptual demonstrative thought. In fact, Campbell himself thinks such unconscious information-processing mechanisms do most of the explanatory work here. As he'd put it, the procedures we use to verify and find the implications of propositions containing perceptual demonstrative terms are information-processing procedures in the visual system.³⁹ His main aim is to convince us that conscious perceptual attention has an essential explanatory role to play despite this.

The basic idea is that conscious perceptual attention sets the targets and objectives for the various information-processing procedures that feed into and make possible perceptual demonstrative thought. Campbell claims conscious perceptual attention determines which objects such information-processing operates on, and which information-processing procedures are used. The idea, roughly, is that without conscious perceptual attention, these information-processing procedures wouldn't 'know' which objects to operate on, nor how to operate on them (see especially 2002: 13-38). We can recast this idea as the claim that the selective psychological antecedents to perceptual demonstrative thought must include conscious personal level capacities and processes (i.e.

³⁹ On Campbell's view these information-processing procedures may be either: **(a)** complex computational procedures used to determine the 'high-level' properties of objects (e.g. whether one object is enclosed by another, where a falling object is going to land, whether there is a clear path between one object and another) (2002: 26-28); **(b)** simpler procedures used to access information about the 'low-level' sensory properties of objects which are detected in early vision (e.g. colour, shape, size, orientation, motion) (2002: 28-34). Campbell bases his discussion of these simpler procedures on aspects of Anne Treisman's Feature Integration Theory (Treisman and Gelade 1980). But Campbell need not rely on the correctness of this theory; his picture could be reformulated within other frameworks (see, e.g., Campbell 2011*a*). In general these kinds of details aren't important for our discussion; I'll set them aside as far as possible in what follows.

must include conscious perceptual attention), which is precisely the claim we need to make the explanatory demand argument work.

Campbell's main argument for his target-setting account begins with the following hypothesis:

The Causal Hypothesis: When, on the basis of vision, you answer the question, 'Is that thing *F*?', what causes the selection of the relevant information to control your verbal response is your conscious attention to the thing referred to (2002: 13).

This hypothesis is about visually-based verbal responses to questions involving a demonstrative expression. But I presume it is also supposed to hold with respect to perceptual demonstrative thought. If you are to understand and answer the question 'Is that thing *F*?' on the basis of vision then presumably, in most ordinary cases, you will have to think a perceptual demonstrative thought about that thing and then make some perceptual demonstrative judgement about it. So, at the level of thought, which is what concerns us here, a broadly parallel causal hypothesis might say something like:

When you make the perceptual demonstrative judgement 'That thing is *F*' what causes the selection of the relevant information-processing to control, guide and make possible your judgment, is (some form of) conscious perceptual attention to that object.

Why should we accept this kind of causal hypothesis? Campbell thinks it is supported by some counterfactual claims about the relations between conscious perceptual attention, information-processing, and perceptual demonstrative thought (2002: 13). We have counterfactuals such as:

[CF1] If your conscious perceptual attention had been directed elsewhere (for example, at a different object), then your perceptual demonstrative judgement would have been controlled, guided and fed by different information and by different information-processing

procedures.

[CF2] In any case in which you consciously perceptually attend to the same object, in the same way, your perceptual demonstrative judgement would be controlled, guided and fed by just the same information and by just the same information-processing procedures.

Campbell's claim is that the causal hypothesis explains why these counterfactuals are true and that for this reason we should accept the causal hypothesis (2002: 13-14ff.).

There are two questions we need to ask to assess this argument. First: Should we accept counterfactuals such as [CF1] and [CF2]? Second: Are there other good explanations of why counterfactuals such as [CF1] and [CF2] hold which are incompatible with Campbell's causal hypothesis?

Let us accept the counterfactuals are plausible. We saw in chapter 2 that there seem to be very intimate links—i.e. some correlations—between certain forms of conscious perceptual attention, perceptual demonstrative thought, and the kind of identificatory knowledge necessary to think a perceptual demonstrative thought. So there are probably also very close links—i.e. some correlations—between certain forms of conscious perceptual attention and the information-processing procedures that underpin perceptual demonstrative thought.

However, with respect to the second question, it does seem that there are other explanations of the truth of counterfactuals such as [CF1] and [CF2] that are incompatible with the causal hypothesis. For example, some versions of the identity view discussed in chapter 2 are incompatible with the causal hypothesis. This is because perceptual demonstrative thought—which, according to some versions of the identity view, *just is* the form of conscious perceptual attention at issue here—cannot itself cause the kind of selection of information that makes possible perceptual demonstrative thought: whatever causes this

selection must, presumably, be causally and explanatorily prior to perceptual demonstrative thought itself. But, despite being incompatible with the causal hypothesis, the identity view could explain why counterfactuals such as [CF1] and [CF2] hold. Presumably there must be a correlation between which object or objects your perceptual demonstrative thought is about, and which information-processing procedures control, guide and feed your perceptual demonstrative thought. So equally, according to the identity view, there will be some correlations between which object you consciously perceptually attend to and which information-processing procedures control, guide and feed your perceptual demonstrative thought. These kinds of correlations could explain why counterfactuals such as [CF1] and [CF2] hold.

Given this, why might we prefer the explanation given by Campbell's causal hypothesis? To make progress here we might ask: If not a form of conscious perceptual attention, then *what* causes and explains the selection of suitable information, to guide, control and feed your perceptual demonstrative thought, such that your thought is connected to the relevant information-processing? Surely something must do so. Now if the identity theorist appealed to a *conscious* selective process or capacity here, then it's difficult to see what this process or capacity could be, if not a form of conscious perceptual attention (see the argument in §1 above). So the identity theorist who rejects [CT] will need to say this role is played by some unconscious selective information-processing mechanism. But Campbell tries to block this kind of answer. He writes:

you might accept that there is a serious question: 'How does it come about that the firing of cells in V4 is connected to your verbal response?' [or 'How does it come about that information-processing in the perceptual system is connected to your perceptual demonstrative judgement?'].^[40] But, you might

⁴⁰In chapter 1 of *Reference and Consciousness* Campbell switches between making his points at the level of information-processing and at the level of cell-firings in the visual cortex, and also between the level of language (verbal report) and the level of thought. I'll stick to talking about information-processing and thought.

say, the cause of there being this connection is not conscious attention to the relevant object. It is, rather, a further information-processing mechanism. To this objection we must immediately concede that there are illuminating information-processing models of the executive control of mental processes ... But at the highest level of determining the objectives of the subject, there simply is no alternative to appealing to the beliefs and intentions of the agent, and that includes the demonstrative beliefs and intentions of the agent. If we were blocked from appealing to the agent's intentions, we would simply have no idea where to begin in giving a model of control of the agent's mental operations. But what I have just been arguing is that an appeal to the agent's demonstrative intentions requires us to appeal to the agent's conscious attention to objects; we cannot acknowledge a role for intention, in the control of mental operations, without thereby acknowledging a role for conscious attention. We may have to appeal to the deepest aspects of an agent's personal life in explaining why his conscious attention has just the focus that it does, and we have no way of recasting this causal-explanatory work in information-processing terms (2002: 13-14).

There's a lot going on in this passage. But as I understand things, the main thought here is there is a *general* problem or puzzle about how information-processing in our perceptual systems could be sensitive and responsive to our personal level beliefs and intentions, such that we can get our perceptual systems to provide us with the information we want, when we want it, about the objects we are interested in, so as to successfully and flexibly guide thought and action. The thought seems to be we must appeal to some form of conscious perceptual attention to, as it were, provide a bridge between the personal level and subpersonal level if we are to explain how this is possible, and that appealing to some further selective information-processing mechanisms won't do.⁴¹ As such, Campbell thinks those who deny the causal hypothesis will have

⁴¹ There's also a tricky and highly compact point about intentions with demonstrative content in the passage quoted above. As far as I understand it the point seems to be: if we are to explain how information-processing is to feed and make possible perceptual demonstrative thought, then such information-processing needs to be sensitive to the subject's prior beliefs and intentions. Not only this, but it needs to be sensitive to prior beliefs and intentions of the subject that already have demonstrative content. I find it difficult to see how this could be so without our reaching a regress, such that any conceptual state with demonstrative content (e.g. any demonstrative thought) must be explained by a prior conceptual state with demonstrative content (e.g. an intention with demonstrative content), which in turn must be explained by some prior conceptual state with demonstrative content, and so on... Also note it doesn't seem that appeal to conscious perceptual attention will, in any straightforward way, help us break the regress. If *any* conceptual state with demonstrative content must be explained by a prior conceptual state with demonstrative content, then we face a regress regardless of whether a

to claim that:

information-processing systems in the human being ... are insulated from the kinds of psychological phenomena familiar to common sense. [And] that the dynamics of the two systems, information-processing and ordinary consciousness, are independent (2002: 26).

But, Campbell claims:

that would be a mistake. Which information-processing we perform is not somehow isolated from the explicit objectives that we have, the tasks that we want to carry out. Which information we process, and how, depends in part on what we are up to, what our objectives are ... The concept of conscious attention thus plays a role here in connecting our psychology, at the level described by common-sense, with the information-processing described by psychologists (2002: 26-27).

We should definitely agree it would be a mistake to say that, in general, which information-processing we perform is isolated from our personal level beliefs and intentions. Plausibly we need to allow for 'top-down' control of information-processing by personal level states like beliefs and intentions. The key question is: Why should we think it must be some form of conscious perceptual attention that connects or bridges information-processing and our personal level beliefs and intentions? Why couldn't some selective information-processing mechanisms, which *just are* sensitive and responsive to our personal level beliefs and intentions, account for the fact that which information we process depends on what we are up to and what our objectives are?

I want to argue it's not true, in general, that we must appeal to a form of conscious perceptual attention if we are to account for how information-processing in our perceptual systems can be responsive and sensitive to our personal level beliefs and intentions. There appear to be cases in which

form of conscious perceptual attention plays some role in explaining how such conceptual states come to have demonstrative content. (Although, to be fair to Campbell, this regress may only appear if we transpose the passage, as I have done, from the level of language and verbal report to the level of thought. But if the point only concerns language and verbal report, then it need not concern us in this thesis).

information-processing in our perceptual systems can be responsive and sensitive in this kind of way, without conscious perceptual attention playing any mediating, bridging or target-setting role. If that's right, we don't need to appeal to a form of conscious perceptual attention to solve the very general problem or puzzle Campbell has set up for us. We can point to two examples here:

[1] Subjects with blindsight have no (or very limited) visual experience in large regions of their visual fields (called a scotoma), due to damage to the primary visual cortex. Nonetheless, surprisingly, blindsight patients can reliably guess, when asked or prompted to, various facts about bits of their environment of which they have no visual experience. For example, one might place a bar in a blindsight patient's scotoma and ask her to report whether the bar has a horizontal or vertical orientation. The subject will probably insist she cannot answer because she cannot see the bar in question. Yet when asked to guess, the subject will often guess accurately (see Weiskrantz 2009 for a recent and comprehensive review). In fact some blindsight patients can make much more fine-grained and complex discriminations than this. For example blindsight patient DB can reliably classify line drawings of animals presented in his scotoma (e.g. by species), even without being asked to choose from a range of options (Trevethan *et al.* 2007). Now, presumably making these kinds of discriminations and guesses requires exploiting various information-processing procedures in the blindsight patient's perceptual system. And, presumably, to enable these kinds of discriminations and guesses such information-processing and information selection must be, to some extent, responsive and sensitive to the patient's personal level beliefs and intentions (e.g. her understanding of her experimenter's instructions, and her intentions to follow these instructions). So it seems reasonable to suggest that we have here a case of information-processing in a subject's perceptual system being responsive and sensitive to the subject's personal level beliefs or intentions. But, in the case of blindsight,

this responsiveness and sensitivity seems to occur without any form of conscious perceptual attention playing any bridging or target-setting role. It is natural to think blindsight patients cannot deploy any form of conscious perceptual attention to objects that fall within their scotomas in these kinds of experiments, and so natural to think no form of conscious perceptual attention plays an explanatory role with respect to their abilities to guess in these kinds of experiments.⁴²

[2] We can also give a non-pathological example. Vision science tells us we usually make saccadic eye-movements around four to five times a second.⁴³ Vision scientists think certain selective mechanisms are importantly implicated in selectively targeting, planning and executing such saccades. The picture is that these mechanisms select the potential target of a saccade, before the saccade takes place, to allow the oculomotor system to process some preliminary information about its target and thereby properly lock onto and execute a movement to its target.⁴⁴ Now, in some cases, which patterns of saccadic eye movements we make is determined ‘top-down’ by our personal level intentions and beliefs (e.g. by the perceptual goals we take ourselves to have, what we’ve been instructed to do, etc.).⁴⁵ So the way in which the selective information-processing involved in saccade-planning takes place must also be determined ‘top-down’ by our personal level beliefs and intentions. So it seems reasonable to suggest we have here another case in which information-processing in a subject’s perceptual system is, to some extent, responsive and sensitive to the subject’s personal level beliefs and intentions, in virtue of the operation of certain selective mechanisms. But it doesn’t seem that, in this case,

⁴² Although note there is some experimental evidence that some form of unconscious attention is deployed in these kinds of experimental tasks; see Kentridge 2011 for a recent review and further references.

⁴³ For a summary of the science of eye-movements see Palmer 1999: 520-531ff.

⁴⁴ See Hoffman 1998 or Pashler 1998: 80-85 for reviews and further references.

⁴⁵ See Yarbus 1967 for some classic and striking examples involving early use of eye trackers.

a form of conscious perceptual attention is required to connect or bridge the level of information-processing and personal level psychological states. The kind of selective mechanism involved in saccade-planning seems to be distinct from the kinds of conscious perceptual attention under consideration here, which involve conscious selection or highlighting of objects in experience. I say this partly because we are probably completely unaware of the majority of the saccades we make, let alone the planning or targeting of them. So whatever the selective mechanism involved in such saccade-planning is (it's sometimes described as a form of attention; see Hoffman 1998), it doesn't seem to be a form of *conscious* perceptual attention. As such, it's reasonable to suggest it would be a mistake to say a form of conscious perceptual attention is involved in all cases of such 'top-down' saccade-planning, and a mistake to say that, in this case, conscious perceptual attention is required for perceptual information-processing to be responsive and sensitive to the subject's personal level beliefs and intentions.

The point here is merely it doesn't seem true that, *in general*, we must appeal to a form of conscious perceptual attention if we are to account for how information-processing in our perceptual systems can be responsive and sensitive to our personal level beliefs and intentions: we can sometimes, at least, appeal to unconscious selective mechanisms instead. If that's right, then the version of Campbell's target-setting argument I presented above fails. Those who reject the causal hypothesis and deny any form of conscious perceptual attention plays Campbell's target-setting role will not be forced to claim 'which perceptual information-processing we carry out is insulated from the kinds of psychological phenomena familiar to common sense, and that the movements of the two systems are independent'.

It might be objected that Campbell really wants to set up a more specific problem or puzzle here; namely, a problem about how the information-processing that makes possible specifically *perceptual demonstrative thought*,

rather than perceptual information-processing in general, can be responsive to our personal level beliefs and intentions. That is to say, it might be objected that Campbell is only trying to claim that, specifically in the case of perceptual demonstrative thought, we must say a form of conscious perceptual attention plays the target-setting role, if we want to explain how this responsiveness is possible. In response to this objection we can ask: Given that *in general* we don't need to appeal to any form of conscious perceptual attention to explain how perceptual information-processing can be responsive to our personal level beliefs and intentions, why do we need to appeal to a form of conscious perceptual attention in the case of perceptual demonstrative thought? What exactly is wrong with saying the selective target-setting role is played by unconscious mechanisms that just are responsive in these ways? I think it's difficult to find answers to these specific questions from Campbell. The following passage is the closest I can find:

The question, for someone who proposes that all the causal-explanatory work in controlling their verbal response [i.e. a visually-based verbal response involving a demonstrative term] is achieved at the information-processing level, is whether we can give an account, in purely information-processing terms, of the distinction between knowing which thing is referred to by the demonstrative and not knowing which thing is referred to by the demonstrative. As we saw [presumably on the basis of consideration of cases like the sea of faces case], common sense draws that distinction by asking whether the subject has consciously singled out the reference of the demonstrative. We have simply no way of getting the effect of that distinction in purely information-processing terms (2002: 14).

There seem to be two points here. First: it's just intuitively plausible or compelling to commonsense that unconscious information-processing mechanisms are not the kind of thing that could provide knowledge of reference. Second: consideration of cases like the sea of faces case backs up this intuitive point. However I hope it's clear these kinds of points are just retreading old ground and lack dialectical force here. This is because I've already argued that: **(a)** it is not obvious knowledge of reference (properly understood) cannot be provided by unconscious information-processing

mechanisms (see this chapter, §1); **(b)** cases like the sea of faces case don't, by themselves, do enough to show this is implausible (at least, given certain assumptions about the disunity of conscious perceptual attention; see chapter 2).

If that's right, and if it's right to think we're not going to find any further arguments from Campbell on these points, then Campbell's target-setting argument is unsuccessful. In fact it's probably more accurate to claim only that the argument is unsuccessful in the present dialectical context. I say this because I'd like to stress that if we were *already convinced* that a form of conscious perceptual attention plays an essential explanatory role with respect to our perceptual demonstrative thoughts—as Campbell probably thinks we should be, on the basis of his sea of faces argument—then the target-setting argument gives us a neat account of exactly how this could be so. In particular, it gives a neat account of how this could be so even if we accept, as we probably should, that much of the explanatory work with respect to our perceptual demonstrative thoughts is carried out by unconscious mechanisms in perceptual information-processing. Campbell's target-setting account shows us how explanations at the level of consciousness and explanations at the level of information-processing need not be in competition here, and that we need not worry conscious perceptual attention is just an epiphenomena of the underlying information-processing (such that we could give the whole explanatory story without mentioning conscious phenomena at all). Campbell shows us how the explanatory role of conscious perceptual attention need not be usurped by perceptual information-processing, and how conscious, personal level phenomena can do genuine explanatory work by providing a kind of 'framing-condition' for the explanatory work done by perceptual information-processing.

There's definitely much to be admired about this kind of account. That said, if we are not already convinced that a form of conscious perceptual attention

plays an explanatory role with respect to our perceptual demonstrative thoughts, then I hope to have argued Campbell's target-setting argument gives us little reason to think a form of conscious perceptual attention actually does play this target-setting role. Another way to put this point is that Campbell's argument gives us little reason to think that the selective psychological antecedents to perceptual demonstrative thought must include more than unconscious mechanisms which occur at the level of information-processing. It was this claim I suggested we needed to defend to make the explanatory demand argument from §1 work.

However, I want to suggest in the next couple of sections that we may be able to develop an alternative, more promising argument on the basis of the explanatory demand discussed in §1.

3. An alternative argument

Stepping back for a moment, I think we can begin to see that an important part of what is causing trouble for Campbell's arguments—or rather my reconstructions of them—is their reliance on Campbell's rather slippery notion of 'knowledge of reference'. As I mentioned above: on the one hand, if we operate with the 'thick' or intuitive construal of this notion, then it's unclear why we should think knowledge of reference should be required for perceptual demonstrative thought. On the other hand, if we operate with the 'thin', technical or functional construal of knowledge of reference, it can be unclear why knowledge of reference could not be provided by something other than a form of conscious perceptual attention. If that's the right way to look at our discussion throughout a lot of chapters 2 and 3, then we should aim, at this point, to consider whether it's possible to develop an argument that doesn't rely upon the notion of 'knowledge of reference'. With this in mind, I want to explore and develop an alternative argument for [CT]* that builds on the

explanatory demand from §1, but which relies very little on the notion of 'knowledge of reference'. The argument has two stages:

The first stage claims that it's not possible to take different attitudes towards [CT]* and the following explanatory claim:

[E] Conscious perceptual experience has an explanatory role to play with respect to our capacities to think perceptual demonstrative thoughts about objects.

The second stage claims it is highly implausible to reject [E]. It claims [E] is something of a datum, which it would be costly and unattractive to give up. If both stages of the argument were cogent, then we should accept [CT]*. I'll discuss the first stage of the argument in the remainder of this section. In §4 I'll turn to the second stage. To look ahead: I'm going to claim this argument is more promising than Campbell's own development of the explanatory demand argument (i.e. his target-setting argument) and that it reveals some of the substantial commitments anyone who rejects [CT]* must take on. However I'm not going to take a stand on whether the argument's second stage is ultimately successful.

Why think it's not possible to take different attitudes towards [CT]* and [E]? Well we saw in §1 of this chapter that rejecting [CT]* commits one to the claim that the selective psychological antecedents to perceptual demonstrative thought are made up only of unconscious mechanisms which occur at the level of information-processing. This means one is committed to claiming that it is only unconscious information-processing mechanisms that select and lock onto objects in order to make possible perceptual demonstrative thought about those objects. Also that it is only unconscious information-processing mechanisms that individuate, delineate and track objects, on the basis of the subject's perceptual relation to those objects, in order to determine which

object the subject's thought is about. Now since those who reject [CT]* are committed to claiming the objects of perceptual demonstrative thought are individuated, selected and tracked at the level of unconscious information-processing (with conscious perceptual phenomena playing no role), I suggest they will also be committed to claiming it is unconscious information-processing mechanisms that feed the subject perceptual information about selected objects, so as to guide and control the content of the subject's perceptual demonstrative thought. I say this because it doesn't seem as if those who reject [CT]* can, as it were, have things both ways and simultaneously claim that:

(a) Conscious perceptual phenomena (e.g. perceptual experience) play some role in guiding and controlling the content of the subject's perceptual demonstrative thought and some role in determining what the subject thinks about the objects of perceptual demonstrative thought.

(b) The objects of perceptual demonstrative thought are individuated, selected and tracked only at the level of unconscious information-processing mechanisms, and not at the level of conscious perceptual phenomena (i.e. by conscious perceptual attention).

But if that's right then notice so much of the explanatory work with respect to perceptual demonstrative thought has now been taken up by unconscious information-processing mechanisms, that it's very difficult to see how there could be room for conscious experience to play an explanatory role. Any explanatory role we might have thought conscious experience could play looks to have been handed over to unconscious information-processing mechanisms (e.g. delineating and individuating objects for the subject; enabling subjects to keep track of objects over time; controlling and guiding the content of the subject's thought). As we might put things, it looks as if the claim that the

selective psychological antecedents to perceptual demonstrative thought are wholly made up of unconscious information-processing mechanisms forces one to claim that basically *all* the explanatory psychological antecedents to perceptual demonstrative thought are unconscious information-processing mechanisms.⁴⁶ And if that's right, then anyone who rejects [CT]* is lumbered with a commitment that squeezes conscious experience out of explanations of our capacities to think perceptual demonstrative thoughts about objects. As such, I suggest it's very difficult to see how anyone who rejects [CT]* could hold onto [E]. (So I suggest we should accept the first stage of the argument outlined at the beginning of this section).

How might someone who rejects [CT]* respond to these accusations? Well they might try to adapt a neat move that Campbell himself makes. As we saw at the end of §2 of this chapter, when it looks as if any explanatory role for conscious psychological phenomena has been handed over to or usurped by information-processing mechanisms, Campbell's move is to claim that conscious psychological phenomena act as a kind of 'framing-condition' for information-processing mechanisms and, as such, make it possible for such information-processing to operate in the appropriate way. So we might try and claim perceptual experience acts as a kind of framing-condition for some of the information-processing that those who reject [CT]* are committed to saying explain our capacities for perceptual demonstrative thought. In this way we might argue conscious perceptual experience does genuine explanatory work here. However, I think it's very difficult to see how Campbell's move could be adapted to work in the case at issue here. One way to look at Campbell's own picture is as follows: Conscious experience of objects provides a framing-condition for and makes possible conscious perceptual attention to objects; e.g. it provides an array from which conscious perceptual attention can select

⁴⁶ An exception might be the personal level beliefs and intentions of the subject that such information-processing must probably be sensitive and responsive to (see discussion in §2 of this chapter).

particular objects. Then, in turn, conscious perceptual attention sets the targets for, guides and instructs the relevant information-processing mechanisms (see discussion in §2 of this chapter). But, crucially, if we cut conscious perceptual attention out of this picture then I suggest it's very difficult to see how or why these unconscious information-processing mechanisms would really require perceptual experience of objects to play any such framing role. I think a key point here is that if we hold all the selective psychological antecedents to perceptual demonstrative thought are unconscious information-processing mechanisms, then we thereby give unconscious information-processing a certain degree of *autonomy*, such that it's mysterious what framing-role conscious experience of objects could be required to play.

I'm not going to be able to establish it's absolutely impossible for any position that rejects [CT]* to hold onto [E] here. But I do hope to have given some reason to think that it's difficult to see how they could do so. If it's right to think that they cannot do so, then we end up with what I think is quite a significant result. The result is that those who reject [CT]* are committed to denying conscious perceptual experience of objects plays any explanatory role with respect to our perceptual demonstrative thoughts about those objects. This result is significant because this is a substantive and, on the face of things, quite radical and revisionary commitment. It is also significant because, as we've seen, there's something difficult and a bit mysterious about the notion of conscious perceptual attention. It seems to straddle a number of apparently diverse conscious capacities, processes and activities that are somewhat familiar to ordinary introspection and our commonsense psychology, and which are, in some complex way, related to a range of phenomena intensively studied by empirical psychology and neuroscience. We've seen there are question marks over how unified these diverse conscious capacities, processes and activities are, and also over exactly what relation they bear to the phenomena studied by psychologists and neuroscientists. As such, it seems reasonable to suggest it

may be easier to argue that perceptual *experience* plays an explanatory role with respect to our perceptual demonstrative thoughts, than it would be to directly argue that conscious perceptual *attention* plays such an explanatory role. Our result from this section would allow us to argue for the reformulated version of Campbell's Thesis (i.e. [CT]*) by focusing on the former explanatory claim, which may be weaker and easier to handle.

The key questions to consider next, in order to build on the result from this section, and to assess the second stage of the argument introduced in this section, are as follows: Can Campbell's opponents legitimately deny that conscious perceptual experience of objects plays any explanatory role with respect to our perceptual demonstrative thoughts about those objects? How costly is this commitment? What other commitments does it lead to?

4. The explanatory role of conscious perceptual experience

Settling these issues in any definite way would probably take a whole thesis in itself. But in this final section I'll explore why we might think it would be unattractive to deny conscious perceptual experience plays an explanatory role with respect to our perceptual demonstrative thoughts, and what the costs and further commitments associated with this denial are likely to be.

In fact, there are several argumentative strategies we could pursue if we wanted to try to establish it would be unattractive to deny this. One strategy would be to try and argue there are epistemic conditions on perceptual demonstrative thought, and also that, given the special epistemic properties of conscious perceptual experience, we can only meet these conditions if we consciously experience the objects of perceptual demonstrative thought (see, e.g., Smithies 2011*b*). If this were so then conscious experience must play some explanatory role with respect to our abilities to think perceptual demonstrative thoughts. One problem with this strategy is that it seems to come close to re-introducing

a notion of ‘knowledge of reference’ into our discussion. I suggested above (§3) that we should try and avoid doing this since knowledge of reference caused serious difficulty for both Campbell’s sea of faces argument, and his target-setting argument. As such, I’ll set this strategy aside.

A second strategy could try and develop and defend what would probably be Campbell’s own approach to these issues. Campbell, I think, would claim that conscious experience of objects is the only thing that can explain how we come to have a conception of objects as ‘categorical entities’, rather than as mere ‘bundles of dispositions’ (i.e. entities that behave thus and so when acted on thus and so, somewhat like the unobservable entities posited in theoretical physics).⁴⁷ The idea here is that only conscious experience presents or confronts us with categorical objects, and that any creature who completely lacked conscious experience of objects could only conceive of objects as ‘bundles of dispositions’. Campbell would go on to claim this means that: if we want to explain how we are able to conceive of objects as categorical entities, then we will be committed to saying we are able to think some of our most basic thoughts about objects—which Campbell would consider to include perceptual demonstrative thoughts—partly on the basis of conscious *experience* of those objects. Now this strategy may be promising. There’s certainly something intuitive about the idea that a creature who completely lacked conscious perceptual experience could at best conceive of objects as bundles of dispositions, like the unobservable entities posited in theoretical physics, because they, in some sense, have never ‘confronted’ objects in experience. And there’s also something intuitive about the idea that this suggests it is experience of objects that explains how we are able to conceive of objects as categorical entities. But I think it can be difficult to see how we could decisively argue that

⁴⁷ See Campbell 2002 (esp. chapters 5 and 6). Note that Campbell primarily uses this point to argue for a relational (as opposed to representationalist or sensational) account of visual experience; but he does also use the point to argue conscious experience must have a causal or explanatory role with respect to perceptual demonstrative thought (see, e.g., 2004, 2002: 132-140ff.).

this is so. And even if we accepted these ideas, it can be difficult to see how we could safely make the move from these ideas to the claim we need here: that if we denied conscious experience plays some explanatory role with respect to specifically our *perceptual demonstrative* thoughts about objects, then it would be impossible to explain how we are able to conceive of objects as categorical entities, and as more than mere bundles of dispositions. For example, for this move to work we'd probably need to defend some very strong and substantive claims that perceptual demonstrative thoughts and concepts are truly fundamental in our conceptual development. So rather than pursue this second strategy any further here, I want to focus discussion on a third, somewhat simpler argumentative strategy.

The third strategy starts with the observation that our ordinary or commonsense understanding of how we are able to think about objects on the basis of perception seems deeply committed to conscious perceptual experience playing an important explanatory role. We might suggest it seems to us that when we think perceptual demonstrative thoughts about objects in our surroundings, we are able to do so *because* our visual experience presents us with those objects and individuates them for us (see, e.g., Roessler 2009: 1036-1037ff.). But why think this is really so? Well there are two issues here. First: Why think commonsense is really deeply committed or properly takes a stand on these issues? Why think we really do take ourselves to understand how we're able to think perceptual demonstrative thoughts about objects, and that we're not just largely neutral on this issue? Second: Even if we agreed we had *some* ordinary or commonsense understanding of how we're able to think perceptual demonstrative thoughts about objects, why think this understanding gives specifically conscious perceptual *experience* an explanatory role?

With regard to the first issue: I want to suggest there is something particularly perspicuous or highly intelligible about our capacities to think perceptual demonstrative thoughts, such that we take ourselves to understand how we're

able to do what we're able to do when we think perceptual demonstrative thoughts. Such highly intelligible capacities might be contrasted with more surprising or less intelligible capacities. For example, consider the capacity some of us have to return a powerful tennis serve. This presumably involves predicting where the ball will land, how it will bounce, how much spin there is on the ball, how powerfully the ball needs to be hit to make it back over the net, etc.; and all this needs to be done within a few tenths of a second. It's reasonable to suggest that this is, in some ways, a highly surprising capacity, such that we don't really understand how we're able to return a powerful tennis serve, or what we really do when we do so. Or we might consider the capacity some of us have to recall obscure and half-forgotten facts, dates and names, such that we can get them to just 'pop into our heads' more or less on demand. It's reasonable to suggest that those who are able to do this kind of thing don't really understand how they're able to do it, or what they're really doing when they do it. In this sense this is a surprising capacity. But, I suggest, our capacities to think perceptual demonstrative thoughts about objects seem to be importantly different. One explanation of this difference is that, unlike in the case of the surprising capacities, we really do take ourselves to understand how we're able to think perceptual demonstrative thoughts about objects, and we really do take ourselves to understand what we do when we do so. That is to say, one explanation of this difference is that commonsense psychology really takes a stand on what explains our capacities for perceptual demonstrative thought.

With regard to the second issue: I want to suggest that if it's right to think we really do have *some* substantial commonsense understanding of our capacities to think perceptual demonstrative thoughts, and that this capacity is readily intelligible to us, then it's natural to think this commonsense understanding must give experience of objects a significant explanatory role. There are at least two reasons it doesn't seem right to say we genuinely take ourselves to understand how we're able to think perceptual demonstrative thoughts about

objects, but that that understanding doesn't give experience an explanatory role: (1) We would naturally think that any creature who was able to think about objects on the basis of perception, but who lacked conscious perceptual experience of those objects, must be thinking about objects in a very different way to the way in which *we* think perceptual demonstrative thoughts about objects. This might suggest we ordinarily think that specifically perceptual *experience* plays an important explanatory or enabling role with respect to our perceptual demonstrative thoughts about objects. (2) Philosophical debates about the nature of perceptual experience appear to be premised on the idea that it *really matters* whether we conceive of perceptual experience as (say) relating us to sense-data, or as a state with representational content, or as a direct relation to ordinary objects and their properties. One explanation of this fact is that it is very natural for us to think the nature of perceptual experience has some interesting explanatory pay-off with respect to our thoughts and judgements about objects (including, paradigmatically, our perceptual demonstrative thoughts and judgements). We might think it would be difficult to see why these debates should seem so important or interesting if we didn't, to some extent, ordinarily think that specifically perceptual *experience* has some significant explanatory role with respect to our perceptual demonstrative thoughts about objects.

If all this is right then we reach the following result: Our ordinary or commonsense understanding of how we are able to think about objects on the basis of perception really is committed to conscious perceptual experience playing an important explanatory role. And if my arguments in §3 of this chapter are correct, this result means those who reject [CT]* are committed to claiming our commonsense understanding of how we are able to think perceptual demonstrative thoughts is quite radically mistaken. But, of course, the commonsense psychology of perceptual demonstrative thought is not immune to criticism. Establishing that our commonsense explanations give

conscious experience a significant explanatory role here doesn't establish that conscious experience in fact plays such a role. It could be that these commonsense explanations are just confabulations: to suppose the actual explanation of our capacities to think perceptual demonstrative thoughts should match up with our naïve, commonsense explanations might be mere wishful thinking. In fact, we can point to some interesting empirical examples to back up these points. We might reasonably think the commonsense explanation of how we are able to reach for, grasp, and point to objects in our environments is that we are able to do so on the basis of, and guided by, our conscious experience of the spatial properties of those objects. It's reasonable to suggest it seems to us that conscious experience of spatial properties explains these capacities (and also that these capacities are readily intelligible or perspicuous in the sense described above). But some interesting and famous experiments suggest these commonsense explanations may just be confabulations. In the experiments subjects are presented with an object and are asked to point to, reach for or grip it. The experimenters discovered that if the object is moved during a saccadic-eye movement, then it turns out subjects will sometimes adjust their pointing, reach or grip to compensate for this movement despite not reporting any awareness of the object's movement (Goodale *et al.* 1986; Pélisson *et al.* 1986; Bridgeman *et al.* 1975). We might think this suggests it is not conscious experience of spatial properties that explains and accounts for the targeting of these actions, but rather mechanisms in the visuomotor system that track the spatial properties of objects more accurately than conscious experience.⁴⁸ If it's right to think this shows these commonsense explanations are confabulations, why should we hold onto our commonsense explanations of perceptual demonstrative thought, which give conscious experience a significant explanatory role?

⁴⁸ For some similar striking examples (that are somewhat more complex because they involve a visual illusion, and probably require some discussion of illusory visual experience) see Goodale 1996; Aglioti *et al.* 1995. See Campbell 2002: 51-53 for some philosophical discussion.

We could ask the following question to try and make progress here: Are there any significant costs associated with the idea that our commonsense explanations of perceptual demonstrative thought are confabulations? Here's one reason to think we could give a positive answer to this question (there may be other reasons I won't explore here): If it turned out that the commonsense psychology of perceptual demonstrative thought were radically mistaken, then this may have some unattractive consequences for the epistemology of perception. To see why this might be so, note it's reasonable to suggest that perceptual demonstrative thought is, in some sense, fundamental in the epistemology of perception, and that many of our most basic non-inferential perceptual beliefs and judgements are perceptual demonstrative beliefs and judgements (see, e.g., Roessler 2009, 2011). If that were right, and if the commonsense psychology of perceptual demonstrative thought were radically mistaken—i.e. if our commonsense psychology were deeply committed to conscious perceptual experience playing an important explanatory role, but in fact conscious experience played no explanatory role at all—then notice it would turn out that we are quite radically mistaken in our ordinary understanding of how we are able to form many of our most basic non-inferential perceptual beliefs and judgements. It would seem to us that we form many of our most basic non-inferential perceptual judgements at least in part on the basis of conscious perceptual experience of objects and their properties, but in fact we would form many of them solely on the basis of subterranean, unconscious information-processing. We might reasonably think that this would undermine our claims to know how we know what we know, on the basis of perception.

Why think this is especially problematic or worrying? Well one reason is that if we were radically mistaken about the sources of many of our most basic non-inferential perceptual beliefs, then this may lead to scepticism about perceptual knowledge. Of course, the idea we are mistaken about the source or basis of our

perceptual beliefs may not worry those who subscribe to a strongly reliabilist or externalist analysis of knowledge, and think knowledge is merely “a matter of getting yourself connected to the facts in the right way (causally, informationally, etc.), whether or not you know or understand that [or, presumably, *how*] you are so connected” (Dretske 1991: 82; also see, e.g., Papineau 1993: 144ff.). But this idea probably will worry those who think some awareness of or sensitivity to what one’s belief sources are is necessary for knowledge, and thus think that being radically mistaken about one’s belief sources can undermine one’s claims to know. This is not the time or place for a large-scale foray into perceptual epistemology. But, I suggest, the thought that this kind of awareness or sensitivity of beliefs sources *is* often required for knowledge—and that forming beliefs without this kind of awareness or sensitivity would make one somehow epistemically irrational—is not an unreasonable one. As such, we can see how this kind of point could form the basis for an argument that being committed to the idea our commonsense explanations of perceptual demonstrative thought are confabulations could lead to scepticism about perceptual knowledge.

On the basis of these kinds of considerations we can begin to see how rejecting the claim that conscious perceptual experience plays an explanatory role with respect to our perceptual demonstrative thoughts—which, I’ve argued, crucially involves rejecting our commonsense psychology of perceptual demonstrative thought—may have some costs and unattractive consequences. And if what I argued in §3 is correct, this means that rejecting the reformulated version of Campbell’s Thesis (i.e. [CT]*) would also have these costs and unattractive consequences. Indeed I suggest the argument discussed in §§3-4 has the potential to be a strong argument for the version of Campbell’s Thesis under consideration in this chapter, which avoids some of the problems associated with Campbell’s own arguments. That said, the modest conclusion I want to draw here is not that our discussion demonstrates that [CT]* is true or that

we've found a complete or decisive argument for [CT]*. It would take much more work—and much more detailed discussion of epistemology—to turn the considerations discussed in this section into a complete or decisive argument for [CT]*. The more modest conclusion I want to draw here is only that our discussion reveals some of the substantial commitments someone who rejects [CT]* will have to take on. If my discussion in this chapter is correct, those who reject [CT]* will be committed to:

(1) claiming the selective psychological antecedents to perceptual demonstrative thought are all unconscious information-processing mechanisms in perceptual cognition (see §1).

Which I've argued leads to a commitment to:

(2) denying conscious perceptual experience has any explanatory role with respect to our capacities to think perceptual demonstrative thoughts about objects (see §3).

Which, in turn, I've argued leads to a commitment to:

(3) claiming our commonsense explanations of our capacities to think perceptual demonstrative thoughts are confabulations and that our commonsense psychology of perceptual demonstrative thought is radically mistaken (see §4);

Which I've suggested leads to a commitment to:

(4) either: (a) scepticism about perceptual knowledge; or (b) adopting a strongly reliabilist or externalist epistemology, such that awareness of or sensitivity to one's belief sources is not necessary for knowledge, and such that being mistaken about one's belief sources does not undermine one's claims to know (see §4).

However I'll leave open here whether or not commitment to (4) is ultimately problematic. This would probably require some substantial discussion of perceptual epistemology, which is beyond the scope of this thesis. I will also leave open whether there are any further problematic commitments that follow from (1)-(4). As such, I'll leave open whether the development of the explanatory demand argument I've been discussing in §§3-4 of this chapter is ultimately successful.

5. Final conclusions

The main aim of this thesis has been to assess Campbell's Thesis (i.e. [CT] and [CT]*) by identifying the issues upon which the question of whether we should accept or reject it turns, and by revealing some of the commitments that must be taken on by those who wish to reject it. My main strategy has been to assess, develop and expand Campbell's own arguments for [CT] and [CT]*.

The first main claim of this thesis has been that Campbell's own arguments are not entirely successful. In chapter 2 I argued that Campbell's sea of faces argument is only successful if we make some substantive assumptions about the unity of conscious perceptual attention. If we don't make these assumptions, I argued the sea of faces argument fails to give us reason to prefer Campbell's Thesis to the identity view. In chapter 3 I argued that Campbell's own development of the explanatory demand argument (what I called his 'target-setting argument') doesn't do enough to convince us we should accept Campbell's Thesis, largely because of its reliance on Campbell's slippery notion of 'knowledge of reference'.

The second main claim of this thesis has been that whether we should accept or reject Campbell's Thesis is probably going to turn on:

(i) whether conscious perceptual attention is a unity in the sense discussed in chapter 2 (I've argued that if it is, then Campbell's sea of faces argument is a strong argument for Campbell's Thesis);

(ii) whether it is acceptable to deny conscious perceptual experience of objects has an explanatory role with respect to our capacities to think perceptual demonstrative thoughts about objects (I've argued that those who reject Campbell's Thesis will be committed to denying this).

Further to this I argued that it's possible to motivate the view that conscious perceptual attention is disunified in the sense at issue here, but also that it is actually an open and extremely difficult question whether or not conscious perceptual attention is a unified psychological phenomenon (chapter 2, §4). I also argued that denying conscious perceptual experience of objects has any explanatory role with respect to our capacities to think perceptual demonstrative thoughts about objects will commit one to claiming our commonsense psychology of perceptual demonstrative thought is radically mistaken. Finally I suggested that, if one wants to avoid scepticism about perceptual knowledge, this will also commit one to adopting a strongly reliabilist or externalist analysis of knowledge (chapter 3, §4).

I hope these claims do considerable work to clarify what determines whether we should accept or reject Campbell's Thesis. But whether they can be turned into a complete and decisive argument for Campbell's Thesis is something I haven't settled here.

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