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Building Nothing Out of Something

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Building Nothing Out of Something

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To the memory of Tommy Wright, Sr., who taught me everything I know.

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Building Nothing Out of Something

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The notion of *absence* is pervasive throughout and central to human language and thought. Such thought and talk is often taken quite seriously. Much has been done to motivate treating absences as genuine entities, things as real as the tables and chairs we encounter in everyday life. Unfortunately, not nearly as much attention has been paid to the question of what *kinds* of things absences could be if indeed there were such things. In this dissertation, I take up the metaphysical question involving the *nature* of absences, and I also carefully consider the ontological question of whether any kind of case can be made for reifying absences. Along the way, I develop a novel metaphysical account of absences, and examine various considerations from the realms of causation, perception, and truthmaking that putatively support treating absences as *bona fide* entities.

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Chapter 1

Introduction

1.1 The centrality of absence

The concept of *absence* is ubiquitous in human thought and language. We often focus on the *presence* of objects and properties and their distributions throughout our world. Yet we just as easily and frequently slide into talk of the absence of such objects and properties and of the distributions and arrays of such absences throughout the universe. We speak of the nitrogen-rich atmosphere that our planet enjoys, contrasting that with other regions in our universe where the absence of nitrogen would make life hostile, if not impossible, for us. Fans of sport often follow their favorite player with zeal, and dread the moment that an injury forces him to be absent from an important championship match. The fans realize, and will report, that the player's absence from the field can change the dynamic of the entire game, causing them to lose.

It is common for us to reason about how the absence of certain conditions affects us, or how certain positive activities in which we engage have as a goal the bringing about of certain kinds of absence. Many among us who are politically minded speak of bringing about peace between warring nations,

or justice in our legal system. Such idealistic individuals are focused on the *presence* of certain conditions. Others of us frame our ambitions in a more negative tone, in terms of bringing about the *absence* of certain conditions. Some look merely for the absence of war, or of injustice. It is striking that, at least conceptually, many of us keep our eyes focused on the notion of absence as opposed to that of presence.

The concept of absence is central in guiding human action. When arranging the furniture in my living room, I often hunt for spaces where other things are absent. I know that I cannot put my couch where other pieces of furniture are, and so I look for a place where other things are not located, i.e., areas from which these other things are absent. A drowning man thrashes toward the water's surface so that he may locate himself (or at least his head!) at a place that is free of water, so that he may breathe without water entering his lungs. The drowning man, in order to survive, must get to a place where the water is absent. Moreover, his desperate attempts to reach the surface bear out that he is aware of this – he is trying to get his head above the water to that place where the water isn't, and he will report as much. As educators, we stress to our students that their absence from class will not be tolerated. Many of us threaten to penalize students who exceed a particular number of absences from class. To enforce such rules, at the beginning of our classes, we check the list of students to see who is in class and who is not. Once finished, we can tally up the number of presences and absences.

Moreover, the sheer number of words in our language that are explicitly

connected to the notion of absence is itself of interest. The list includes, but is not limited to: ‘absence’, ‘deficiency’, ‘deficit’, ‘lack’, ‘omission’, ‘privation’, and ‘want’. Moreover, there are various concepts that are to be *analyzed* in terms of an absence of a particular kind of condition. One who is blind suffers from a lack or absence of sightedness. The mute suffer from the lack of an ability to speak. Finally, with many words, we can use prefixes like ‘un’ or ‘non’ to generate terms that are analyzable as the absence of whatever has been prefixed. An unguarded fortress is one from which guards are absent. An unstable foundation lacks stability. The U.S. government has much interest in ensuring that certain non-nuclear countries, countries from which nuclear weapons are absent, do not become nuclear.

It is not just within the realm of ordinary language that discussion of absences occurs. Several scientific concepts are themselves commonly analyzed in terms of absence. The concept of a *vacuum*, for instance, finds mention in work by the Ancient Greeks, Einstein, and contemporary quantum theorists. According to the Ancient Greeks, the concept of a vacuum is that of a region of space from which *matter* is absent. Moreover, the Greeks seemed to consider space empty of matter *totally empty*. (In this regard, their use of ‘vacuum’ corresponds to our notion of a *void*.) Whether or not nature abhors a vacuum, it is certain that Plato did:

Once the circumference of the universe has comprehended the [four] kinds, then, because it is round and has a natural tendency to

gather in upon itself, it constricts them all and allows no empty space to be left over. (*Timaeus* 58a7-b1)

While this focus on our language and conceptual catalogue might sharpen the interest in the *notion* of absence, more theoretical observations have pushed some to admit absences into their ontology as *bona fide* entities. First, there is a motivation based on causation. We often characterize causes and effects employing only positive information. We speak of, for instance, rainfall causing a flood. Yet we just as often characterize causation by employing negative information. A *lack* of rainfall, we often say, causes detrimental results for an environment. It might be tempting to think that such statements have metaphysical implications. In particular, one might be tempted to think that there is something special about the relata of the causal relations. One natural way to cash out this temptation is to include absences as the relata of such relations.¹ In this way, one might think absences are required for their causal work.

Perception also provides some intuitive pull to the claim that there are absences. C.B. Martin has offered a range of cases that purport to reveal absences as objects of perceptual awareness:

¹Though it is natural given such considerations to think that absences stand in causal relations, this is not the *only* way to cash out such a temptation. One could also think of absences as being *relevant* to causation without being causes. One way in which this relevance plays out is in terms of causal explanation. In this way, we allow that absences are importantly linked to causation without holding that they stand in causal relations. We shall explore this alternative, and others, in depth in Chapter 3.

[A]bsences *are* perceived. We look very carefully to make sure of the absence of Mary in the room before nominating Gertrude. We are not looking for pure nothingness. We are looking for the absence from the room of Mary...The blind feel for the *absence* of solid impediment to their progress. The sensation of their hand or limb passing through the space that is empty of such impediment is the desired perception of absence or emptiness in a perfectly straightforward way. (Martin 1996: 64)

More recently, Roy Sorensen (2004) and (2008) has focused on so-called “dark experiences”. When a subject enters an unilluminated room, Sorensen maintains that he is aware of darkness. The subject does not suffer from an absence of experience, but rather, enjoys an experience of absence. Darkness, for Sorensen, is an absence of light, and so on his account, what one is aware of when aware of darkness *just is* a certain kind of absence. His account generalizes across the modality of vision to other dark phenomena, from shadows to silhouettes. Sorensen also expands his focus to other sensory modalities, like audition. For Sorensen, when one enjoys silence, one is perceptually aware of a different sort of absence, namely the absence of sound. Clearly, for Martin and Sorensen, perceptual experience is pregnant with motivations for reifying absences.

Finally, motivation for reifying absences can be found in the theory of truthmaking. According to *truthmaker maximalism*, every truth is made true by some entity, typically thought of as a Russellian fact or Armstrongian state

of affairs. Among the truths, however, are negative truths, truths about what is *not* the case. *That Socrates is snub-nosed* is a truth, and it is made true by Socrates's being snub-nosed. *That Socrates is not a camel*, however, is also a truth. What could make this truth true? Among the options here is to suggest that the relevant truthmaker involves a certain kind of absence, perhaps the absence of Socrates's being a camel, among the fundamental constituents of the world.

Of course, those antithetical to reifying absences have sought to explain away these motivations and show how we can do without absences. When it comes to our language and thought as supporting the project of reifying absences, critics remind us of various ways in which such phenomena can lead us astray. We often speak as though reality contains a certain kind of entity, when we should know better. For all the ontological seriousness in our language, we just as often engage in loose talk, or *façons de parler*. As Lewis notes:

Our teachers used to warn us, rather too often and rather too stridently, not to be betwitched by language. They told us, in particular, to beware of 'pseudo-reference': not to be taken in by phrases that superficially resemble referring terms, but that actually play some quite different role in the game of language. (Lewis 1998: 216-17)

The more theoretical motivations for reifying absences are met in turn with

theoretical replies. It is typically suggested that nothing about causation, or perception, or negative truths reveal that we should reify absences.

These ontological disputes are obviously important and clearly demand settling. Such concerns, however, should be considered as downstream from theoretical issues surrounding what absences *might* be. Through two phases, this dissertation takes up the questions over the ontological status of absences as well as the metaphysical questions regarding what kinds of entity they could be were they to exist.

1.2 The path ahead

In the first phase of the dissertation, which takes up Chapter 2, I briefly discuss constraints on a theory of absences that emerge from the theoretical motivations for reifying them discussed above and, in service to the metaphysical questions about absences, I exhaustively catalog and critically discuss the available options for what absences could be.

This metaphysical phase concludes with the formulation of a novel theory of absences that meets the aforementioned constraints while nonetheless retaining (on one version) a naturalistically acceptable profile. This theory takes as its starting point the relation between presence, absence, and location, and holds that an absence of something is intimately related (either by identity or constitution) to its spatiotemporal complement. I then explore the ways in which this account nicely generalizes, isolating not only the absences of existents like particulars, events and properties, but also those of

non-existents. After developing the basic tenets of theory, I discuss its more subtle contours, with a sharp focus on how the theory can be responsive to other metaphysical scruples one might have, particularly about whether and how absences persist.

Having settled the metaphysical questions surrounding what kinds of thing absences could be, I turn in the second phase to the ontological question. I focus on three central cases that have been considered in favor of reifying absences.

When it comes to causation, I show in Chapter 3 that causal statements involving omissions and other instances of so-called “negative causation” demonstrate a stubbornly resilient negativity. This negativity occurs not just at the level of language, but rather at a more fundamental *conceptual* level. The sheer depth of the conceptual negativity involved in causal statements suggests, at first glance, something special about the causal relations these statements purport to describe. I take a critical look at attempts to undermine such metaphysical implications, and ultimately find them wanting. The conceptual negativity, I suggest, must somehow be reflected at the metaphysical level. As such, we can make the case for adding absences to our ontology by way of causation. However, against the dominant thinking, I argue that engaging this conceptual negativity at the metaphysical level does not require any occult or mysterious entities. One need only utilize the naturalistically acceptable theory of absences charted in the first phase of the dissertation.

Putative perceptual experiences have been marshaled in favor of reify-

ing absences as novel *sui generis* entities. In Chapter 4, I argue that for the vast majority of these cases, like seeing the absence of one's friend from the room or tasting the absence of salt from a dish, the relevant experiences are properly characterized using rather humble resources. I then turn my attention to cases where a subject seems to enjoy awareness of holes and of darkness. In these cases, I show that the objects of our awareness are the very kinds of thing featured in the theory of absences I offer. This is doubly advantageous. First, perceptual experiences of absence, far from having the mysterious nature some have supposed, can stand alongside other familiar kinds of perception. Second, justice is done to the sense in which such experiences are indeed experiences *of absence*.

Finally, in Chapter 5, I consider absences in a theory of truthmaking. Many philosophers are attracted to the idea that at least some truths have truthmakers – things the existence of which suffices to make the relevant truths true. However, it has proven notoriously difficult to provide acceptable truthmakers for *negative* truths – truths about what is *not* the case. This has forced some to claim that not all truths require truthmakers, a position that has been forcefully criticized (most notably by Ross Cameron, Julian Dodd, and Trenton Merricks) as theoretically untenable. I show how absences as I conceive of them can serve as truthmakers for negative truths. At the same time, they avoid the primary criticisms that have plagued previous attempts to provide such truthmakers. In this domain, the case for reifying absences is somewhat tentative: if one believes in truthmakers at all, one has powerful

reasons to accept absences as characterized by my theory.

If what occurs in the following is successful, there are two important consequences. First, we will have examined ontological debates involving absences, and will have considered whether any case for reification can be made. Second, and most importantly, the metaphysical and conceptual landscape involving absences will have been characterized and charted. If we want to engage in further debates about the metaphysics of absences, this dissertation can be thought of as a map of the terrain that must be traversed in undertaking such debates.

Chapter 2

Concepts of Absence

2.1 Introduction

For all the back and forth amongst proponents and critics of reifying absences as genuine entities, there has been shockingly little discussion of what absences could be, were there any. Among those who recommend reifying absences, sometimes the refusal to offer an account is explicit.¹ Other times it is couched in vague intimations about particular features of absences, but nothing approaching a general theory.²

In the previous chapter we discussed the popular motivations – from causation, perception, and truthmaking – for reifying absences. A full study of the ontological questions involving absences will need to take up such motivations. However, before we devote the time and resources to considering whether these popular motivations for reifying absences are defensible in general, we must first understand the conceptual terrain available to us. The popular motivations for reifying absences do, however, play an important role in setting out logical space. They place a reasonable constraint on any account

¹See Sorensen (2008: 19): “[I]t feels paradoxical to say that absences exist – but no better to say that absences do not exist...I do not attempt a general account of absences.”

²See Haldane (2007: 184-5).

of absences. Whatever absences could be, they should be the kinds of thing that conform to the considerations in favor of reifying them. If an analysis of absences delivers things that can simply play no role in causation, perception, or truthmaking, then it will be less preferable to one that does not. That being said, in this chapter, we will not concern ourselves with the *status* of the popular motivations cited for reifying absences. We will not, for instance, explore whether absences really should be thought of as serving as causes and effects, or objects of awareness, or truthmakers. Such issues are taken up in subsequent chapters. Our concern here is rather with what kind of thing an absence could be such that it *could* be a cause, or an object of awareness, or a truthmaker.

Focusing on the variety of purposes to which absences have been put, we can locate another reasonable constraint on a theory of absences. Many who discuss absences frequently fail to consider how absences might constitute a *unifying* category, something relevant not only to one specialized domain, but across the realms of, e.g., causation, perception, and truthmaker theory. If a theory of absences is *malleable*, i.e., if it is consistent with absences serving *multiple* purposes, then that theory enjoys an advantage.

This chapter proceeds as follows. I first explore a very basic distinction between two concepts of absence. With this distinction at hand, I consider various potential analyses of absences, along with others currently on offer. Some, as I'll show, are conceptually unsatisfactory. Others simply do not conform to the kinds of motivations offered for reifying absences in the first

place. As such, they won't do the sorts of things philosophers have wanted to use them to do, and so they will not be attractive given the basic motivations for the project of reifying absences. I shall then move on to offer a novel account of absences. After developing this account, I shall briefly gesture at ways they can be deployed in the cases that allegedly motivate reifying absences. Once this account is complete, I will point out interesting ways that some *prima facie* objections to absences fail to affect my analysis. In the end, then, the primary aim of this chapter is not to establish that there are absences, but rather, what they would be, were there any.

2.2 Two concepts of absence

The pervasiveness of the notion of absence in our conceptual catalogue is matched by subtle distinctions in our ways of characterizing that notion. One way of honing in on the notion of absence involves negative existential claims. If I say that there is an absence of oxygen in the room, I may also affirm a negative existential to the effect that there is no oxygen in the room. In saying that there is an absence, I could be construed as simply making a claim to the effect that something doesn't exist.

There is another way to characterize the notion of absence. Instead of making a negative existential claim, one could instead be positing the existence of something such that it is an absence. On this construal, positing the absence of oxygen is tantamount to saying that there *is* something that lacks the property of being oxygen. What makes that thing an absence of oxygen is

precisely that it lacks the property.

These two concepts of absence track a distinction between two ways that negation can take scope over an existential claim. On the one hand, there is wide scope negation ($\neg\exists xFx$), which denies the existence of a particular sort of thing. On the other, narrow scope negation ($\exists x\neg Fx$) denies not that some thing exists, but rather that some thing has a certain property. Call a theory of absences based on wide scope negation a *WSN* theory of absences, and one based on narrow scope negation a *NSN* theory. I shall in the next section turn my attention to WSN theories of absences, and address whether such theories are suitable. After considering WSN theories, I shall turn my attention to NSN theories.

2.3 WSN theories of absences

It might be thought that if we are considering the two aforementioned concepts of absences in the context of the question of what absences might be were there any such things, then it is obvious we need only look to NSN as a starting point. Historically, the notion of absence that corresponds to wide-scope negation has gone hand-in-hand with *anti-realism* about absences as entities. For instance, David Lewis maintains that we can, with the vulgar, hold that there are such things as absences, so long as we are careful to note that in doing so, we are merely making a negative existential claim and *not* positing the existence of a certain kind of thing:

Absences are bogus entities. Yet the proposition that an absence occurs is not bogus. It is a perfectly good negative existential proposition. (Lewis 2000: 100)

Lewis here holds that we must be careful not to take the language of absence ontologically seriously, or as demanding reification. To note that an absence occurs is just to make a negative existential claim. For Lewis, we must paraphrase away talk that seems to commit one to absences in terms of negative existentials. A negative existential claim, for Lewis, is in essence a claim that begs off ontological commitments, not one that incurs any. Indeed, it is thus difficult to see *how* a WSN theory of absences could conform to an overall project toward reifying absences. Coupled with certain theoretical commitments, however, there is one such way a WSN theory might be developed in keeping with a realist approach toward absences: an appropriation of Meinongianism.

2.3.1 Appropriating Meinongianism in a WSN theory of absences

Roderick Chisholm (1960: 83) provides this famous translation of Meinong: “[T]here are objects of which it is true that there are no such objects.” For Meinong, there were various distinctions to be drawn among objects in terms of being, non-being, existence, and non-existence. The distinction that is most salient distinction for our purposes, and that has had the most lasting impact,

is the distinction between objects that exist and those that do not.³ If we are looking to reify absences from within a WSN framework, we might treat absences as Meinongian objects.

How might such a proposal be formulated? Consider the absence of nitrogen from Mars, which makes conditions inhospitable for human life. From a WSN framework, when we say that there is an absence of a certain kind of thing, we are saying that the thing in question does not exist.⁴ Thus, the absence of nitrogen and the non-existence of nitrogen ultimately amount to the same thing.

Depending on how one understands the Meinongian view, there are a couple of different ways one might understand what negation takes wide scope over. On a popular construal of Meinongianism, the Meinongian will see negation as taking wide scope over one sort of quantifier, and narrow scope over another. On this view, Meinongians are taken to accept two sorts of quantifiers, one that corresponds to existence, and another existentially neutral ‘there is’ quantifier which quantifies over existents and non-existents alike. Quine and his followers, most notably Peter van Inwagen (1977) and (2008), attribute this view to Meinong. Thus, let us label this view “Quineongianism”.⁵ On this WSN approach, negation will take wide scope over the

³Meinong’s distinction between existent and non-existent objects has famously been developed further and defended by Parsons (1980), Priest (2005), and Routley (1980).

⁴In the case where we note the absence of nitrogen *from Mars*, of course, we are implicitly restricting our quantifiers to the domain of things that exist on Mars. Likewise for other locational restrictions on absences.

⁵It is a matter of controversy whether Meinong himself should be attributed this view.

existential quantifier, but will have narrow scope with regards to the ‘there is’ quantifier.

Those who construe Meinongianism as Quine-ongianism typically take it as an incoherent view. The most popular criticism made is simply that it is unclear what difference there could be between the two quantifiers utilized by the Quine-ongian. The Quine-ongian accepts two kinds of quantification, one existentially neutral, and the other existentially loaded, whereas the orthodox critic of Quine-ongianism holds that there is only one kind of quantification which corresponds to the Quine-ongian’s existentially loaded quantification. The critical attitude toward Quine-ongianism is expressed by David Lewis as follows:

We of the establishment think that there is only one kind of quantification. The several idioms of what we call ‘existential’ quantification are entirely synonymous and interchangeable. It does not matter whether you say ‘Some things are donkeys’ or ‘There are donkeys’ or ‘Donkeys exist’ – you mean exactly the same thing whichever way you say it. The same goes for more vexed cases: it does not matter whether you say ‘Some famous fictional detective uses cocaine’, ‘There is a famous fictional detective who uses cocaine’, or ‘A famous cocaine- using fictional detective exists’ - whether true or whether false, all three statements stand or fall together. (Lewis 1990: 154–5)

There is, however, a different way to characterize a Meinongian view. Graham Priest (2005), for instance, has offered a version of Meinongianism that

offers a single existentially neutral quantifier that quantifies over particular entities, as well as a universal quantifier that is existentially neutral with regard to the entities quantified over. Among the entities quantified over are not only those that exist but also those that do not. To distinguish between the existent and the non-existent is not a matter of looking at the domain over which quantifiers range. Rather, we draw that distinction with the help of a primitive predicate of existence. Taking this version of Meinongianism, negation takes narrow scope with regard to the relevant quantifier, and has wide scope with regard to the primitive existence predicate.

Regardless of the theoretical choice between Quine-ongianism or Priest-style Meinongianism, I can envision two broad ways for the WSN theorist to flesh out a distinctive Meinongian theory of absences.⁶ The first – call it the *non-existent ordinary object* view – is to analyze the absence of a thing F as there being some non-existent F . On this sort of picture, an absence of nitrogen *just is* some non-existent nitrogen, something that both is nitrogen and fails to exist. When it comes to events, the absence of an explosion *just is* some non-existent explosion, something that is both an explosion and fails to exist. Indeed, John Haldane intimates that this is one way of importing Meinong into a theory of absences:

To adapt Meinong’s remark about non-existents, one may put the

⁶I say that these views are *distinctively* Meinongian because their particular account of what absences are is radically different from any of the other views discussed in this chapter. The Meinongian could also parrot the views that we discuss later in this chapter, so long as they maintain that the relevant entities in question do not exist.

point in paradoxical mode by saying that there are non-happenings of which it is true to say that there are such happenings. Such (non)-occurrences as the smoke alarm failing to go off; the engine not starting; and the non-operation of the circuit, all call for explanation and their explanations include absences and non-occurrences. (Haldane 2007: 182)

This view will need to be supplemented in order to be fully satisfactory. For there are many instances in which we want to cite not simply particular absences, but rather a more general absence. For instance, we want to say that it is a general lack of a battery that caused the alarm to fail, not some *particular* battery's absence. One way to allow for general absences, consistent with this style of account, is to treat general absences as something like mereological sums of individual absences. Alternatively, the Meinongian might here simply treat general absence talk as the sort of mere negative existential speech explored earlier that brings with it no additional ontology. On this latter strategy, however, the Meinongian must explain why we shouldn't simply treat *all* absence talk in such a way.

A second Meinongian solution – call it the *non-existent states of affairs* view – looks elsewhere to build non-existences. Among the kinds of objects that Meinong admits in his ontology are *facts* or *states of affairs*. These states of affairs are most naturally treated as non-Armstrongian facts (i.e., they are not particulars consisting in or non-mereologically composed of universals and

particulars).⁷ One natural way to understand Meinongian facts is as true proposition-like entities. There *are* states of affairs, for Meinong, but they do not *exist*.⁸

This holds not only for states of affairs of absence, but also for states of affairs of presence. For instance, there is the state of affairs of my computer resting on my desk. This state of affairs is itself an object that does not exist. There are also states of affairs regarding the existence and non-existence of certain kinds of thing. Since computers exist, there is the state of affairs of there existing computers. Since unicorns do not exist, there is the state of affairs of there not existing unicorns.⁹ Thus, on this picture, we can say that the absence of nitrogen from Mars is simply the state of affairs of there not being nitrogen on Mars. This state of affairs, for Meinong, has being but itself fails to exist. Such states of affairs “nest” in a way that can be rather confusing:

Thus Meinong would say that, since there are horses, there is also the being of horses, as well as the being of the being of horses, the nonbeing of the nonbeing of horses, and the being of the nonbeing

⁷For a similar account of states of affairs, albeit one in which the relevant states of affairs *exist*, see Chisholm (1976), Bennett (1988), and Mellor (1995) and (2004). More on this in the next section.

⁸Though, for Meinong, at least, they have being as *subsisting* entities. For Meinong, subsistence is a mode of being reserved for abstract entities. This distinction is irrelevant for our purposes, as subsisting entities are subject to the kinds of criticism that I raise for any kind of non-existent.

⁹In this way, this Meinongian strategy avoids the problems of general absences set out for the Meinongian non-existent ordinary object view charted above.

of the nonbeing of horses. And he would say that, since there are no unicorns, there is the nonbeing of unicorns, as well as the being of the nonbeing of unicorns, and the nonbeing of the being of unicorns. (Chisholm 1973: 47)

On this sort of account, a Meinongian WSN theorist of absences could hold that the absence of nitrogen is the (non-existent) state of affairs of there not existing nitrogen. The details of how one cashes out non-existence depend on whether one adopts Quine-ongianism or a Priest-style interpretation of Meinongianism.

Does Meinongianism provide a suitable WSN theory of absences? The criticisms of Meinongianism in general are well-known, and I shall not rehearse them here.¹⁰ However, even if we set aside the problems with the theory itself, a Meinongian WSN theory of absences will face two sorts of problems, regardless of the theoretical choice made between Quine-ongianism or Priest-style Meinongianism.

First, it might seem that a Meinongian WSN theory of absences has trouble accounting for at least one popular way we tend to speak of absences. Absences are often thought of as localized. That is, very many sorts of absences are typically conceived of as having *locations*. Think of the absence of nitrogen from certain regions of the universe. Nitrogen is in plentiful supply here on Earth, and its presence facilitates life. The absence of nitrogen from Mars, by

¹⁰See Lewis (1990) and van Inwagen (1977), (2003), and (2008) for the most familiar criticisms of Meinongianism.

contrast, makes conditions hostile for life. The absence of nitrogen, it seems, has a location in the universe. In particular, it is located not here on Earth, but instead on Mars. That it is located on Mars explains why certain forms of life cannot survive there, but can thrive here. Things that fail to exist, however, do not appear to be the kinds of things that have locations. Location appears to imply existence.

The Meinongian might respond, however, that what it is for a Meinongian object to have a location is for it to have among its characterizing properties being located at certain place. For instance, just as the round square has among its characterizing properties being round and being square, so too non-existent nitrogen on Mars has among its characterizing properties being located on Mars. But the following seems to be a truism about locations: if an object is located at a certain location, then that location contains that object. No locations, however, contain Meinongian objects. After all, you certainly won't find any by looking.

This point, though appealing, is perhaps undecisive. For the Meinongian can suggest that I have simply prejudiced *one* way of determining the location of an object: an empirical way that involves checking the locations themselves. In essence, the Meinongian can maintain that he has offered a separate way for determining the locations of non-existent objects. Given the nature of Meinongian objects, we should not expect to be able to find them by looking at the locations. Rather, we discover the locations of Meinongian objects by considering their characterizing properties. One doesn't discover

where Meinongian objects are with the eyes, one does it rather with the mind.

It is reasonable to worry that this Meinongian claim is simply special pleading. However, we needn't look for a decisive failure of the Meinongian with regard to our ordinary thinking about absences to rule out a Meinongian WSN theory. For the theory fails to conform to certain theoretical motivations for reifying absences. First, consider causation. Recall that one motivation for reifying absences is that they might be utilized to serve as the relata of certain causal relations (i.e., not *merely* relevant to such relations) specified with negative information. However, a Meinongian WSN theory of absences has it that absences are either non-existent objects or non-existent states of affairs. Yet it seems a truism that if something is to get involved in the causal order of the universe, it must exist. Indeed, this point is uncontroversial even amongst Meinongians. They will themselves admit that non-existent objects fail to enter into causal relations.¹¹ Since non-existent objects fail to exist, and thus fail to get involved in causal relations, they will be of no help to those who appeal to absences as the relata of certain causal relations.¹²

Similar considerations hold for the case of perception. Interestingly,

¹¹See Priest (2005: 141).

¹²If we simply reject the notion that absences stand in causal relations, we could allow that such Meinongian objects are causally *relevant*, perhaps as being central to causal explanation. Alternatively, one might hold that Meinongian objects could figure in enabling conditions. This latter strategy, however, seems hard to motivate, given that it seems like enabling involves the kind of efficacy only allowed to existents. In Chapter 3, we will explore in depth whether we can allow that absences should be thought of as always *merely* causally relevant. For our purposes now, we are merely considering what kinds of thing absences could be such that they could stand in causal *relations*.

some have held that in certain experiences we are aware of Meinongian objects. A.D. Smith has defended the view that when a subject hallucinates, there is something of which he is aware, it just so happens that the objects of his awareness fail to exist:

Hallucination, equally with veridical perception, presents us not with sensations, or sense-impressions, or sense-data, but with *normal objects*: normal *physical* objects, to boot, in the sense that they are presented in three-dimensional physical space...When Macbeth hallucinated a dagger, he was not aware of visual sensations. What he was aware of was, I shall initially suggest, a dagger, located at some point in physical space before him, though one what was non-existent, or unreal. Since his state was hallucinatory, his object of awareness was *merely* an intentional object. (Smith 2002: 234)

Whether or not this is an accurate account of hallucination (and I have serious doubts), there are other importantly different cases to which people have appealed as the central reason for reifying absences. As mentioned earlier, Sorensen and Martin appeal not to cases of *hallucination* but rather to cases of what they take to be *veridical* perception. For Martin, a subject (allegedly) can actually *perceive* the absence of an individual or an object. Sorensen holds that experiences of darkness, among other kinds of experiences across the modalities, count as successful perceptions of absence, not mere hallucinatory experiences. The typical motivations for reifying absences in the realm of

perception have it that subjects are enjoying success states, states of genuine engagement with something (existent) in the world.

Moreover, given that most philosophers *typically* take causation to be a necessary condition on successful perception, if one holds that absences genuinely are *perceived*, then one cannot hold that in perceiving an absence, one is aware of a Meinongian object. For if successful perception requires that the perceived thing be somehow causally related to the perceiver, then the objects of veridical perception must in some way be causally related to us. Yet, as we've already discussed, Meinongian objects do not enter into causal relations. Thus, if we seek to reify absences as the objects of perception in a certain range of cases, and if we want to maintain that causation is a necessary condition on successful perception, we cannot expect a Meinongian WSN theory of absences to deliver the goods.

We may expect the Meinongian, however, to take a different view of the nature of perception altogether. They may, if they want absences to be the objects of *perception*, simply reject the view that causation is a necessary condition on perception. In certain ways, the Meinongian could take a view similar to Mark Johnston's (2004) view of perceptual experience. Perception on this view is not *essentially* a causal matter. As Johnston puts it:

Philosophers sometimes speak of a "Hume" world, a world which is as close to ours at the manifest level as it can be compatible with there being no causation in that world. It seems an epistemic possibility that our world is a Hume world, but this does not have

to be the epistemic possibility in which we never see anything. Therefore being connected to the thing seen by an appropriate causal process originating with the thing seen cannot be an *a priori* and necessary condition on seeing that thing. (Johnston 2004: 171)

Taking this Johnstonian stance toward causation, the Meinongian could maintain that not only are we aware of Meinongian objects in hallucination, but also in successful perception as well. However, there is one important difference between Johnston's view of the nature of perception and the Meinongian's, a difference that makes the Meinongian view rather hard to swallow. Even if causation is not *essential* to seeing, as a matter of fact, at the actual world successful perception is *constituted* by a causal process. Johnston allows that at the actual world, when we enjoy perceptual experience, we are causally related to the objects of perception:

[T]he relation between seeing an object and the long physical process involving first the light coming from the object and then the operation of the visual system is *not* the relation between a first mental effect and a prior physical process that causes it. Seeing the object is not the next event *after the visual system operates*. Seeing the object is an event materially constituted by *the long physical process* connecting the object seen to the final state of the visual system. Seeing the object is an event that is (as it actually turns out) constituted by a physical process that goes all the way out to the object seen. (Johnston 2004: 138-9)

When it comes to *perception* of absences, the Meinongian cannot make even this modest concession of the reasonable supposition that perception as we know it is a causal matter, even if it is not by its essence causal. Perceiving absences for the Meinongian could *never* bring with it standing in any causal relations, since on the theory under consideration, absences are non-existents and as such never get involved in causal relations. So while certain moves can be made that might allow the Meinongian to maintain that we're perceptually aware of absences, such moves are made available only via an unhappy rejection of the widespread, intuitive notion that causation is at least somehow involved in actual perceptual relations.

Perhaps worse, the Meinongian will lose one popular way of drawing the distinction between hallucination and perception when it comes to absences. What makes hallucination importantly different from typical cases of perception is that the object of hallucination is not causally related to the perceiver. Causation thus provides one way of drawing a conceptual division between hallucination and perception. What goes wrong in the case of hallucination is that one is not causally related to an external reality. Obviously the Meinongian cannot differentiate hallucination and genuine perception of absence by appeal to a causal difference between them. Indeed, given the rejection of causation as a necessary condition for perception, it's difficult what for the Meinongian *could* differentiate veridical experience of an absence from mere hallucination.

Meinongian WSN absences *may*, however, be able to do some work in

the theory of truthmaking. Typically, the formulations of truthmaker theory have it that truths are made true by things that *exist*.¹³ This should not be surprising, since most philosophers reject the distinction made by Meinong and his followers between existent and non-existent objects. Truthmaking is supposed to be a relation between what is true and what there is, and the vast majority of philosophers simply take it that what there is *just is* what exists. Thus, even though a Meinongian theory of absences may not be in line with the traditional formulations of truthmaker theory, it is not clearly in opposition to its spirit. As Chris Daly has pointed out, one could formulate a version of truthmaker theory that is consistent with Meinongianism:

We might formulate a version of the principle, however, which uses only Meinongian [i.e., existentially neutral] quantification...On this formulation, for every truth there is a truthmaker, but it does not follow that any such truthmaker exists. Perhaps the work of Meinong and Routley can be interpreted – for purposes of philosophical illumination, if not historical accuracy – in terms of their positing non-existent truthmakers for truths about fictions, about abstracta, and so on for all the other truths which they applied their theories of the non-existent to. (Daly 2005: 86)

The WSN theorist of absences may be able to appropriate Meinongian resources to provide truthmakers for the sorts of truths for which absences have typically been utilized. For instance, perhaps the truth of a proposition

¹³See, e.g., Fox (1987: 189)

like *that Socrates is not a camel* could be made true by the (non-existent) state of affairs of Socrates's not being a camel, or otherwise a Meinongian object that is Socrates, and a camel, and fails to exist.

That we are thus potentially able to satisfy a demand for truthmakers, however, should be considered a rather small victory for a Meinongian WSN theory of absences. Given the hurdles the Meinongian theory must leap in order to conform to the way we typically think of absences (e.g., as having locations), coupled with the theory's inability to satisfactorily do the work we want done in the realm of causation and perception, it only gives us a tool to be used in a rather specialized field. It cannot provide a useful way of conceiving of absences as a *unifying* category. One *already* faces an uphill battle in defending the Meinongian distinction between existents and non-existents, so it would behoove us to look elsewhere in developing a theory of absences. Its benefits look to be outweighed by its inability to meet the constraints on a theory of absences mentioned above.

2.4 NSN theories of absences

2.4.1 Negativity and reduction

While WSN theories characterize absences in terms of negative existentials, taking absences to be non-existents or facts about non-existence, NSN theories take absences to be things that exist. Under an NSN theory, there are various options for reification. As Lewis (2004: 281-2) has noted, the first theoretical choice an NSN theory must make is whether to reify absences re-

ductively or non-reductively. One could either maintain that absences are *sui generis* entities that are not to be reduced to the entities already accepted as part of the furniture of the universe, or one could simply reduce absences to something that is commonly taken to exist.

The history of non-reductive approaches to absences is rather grim. The central problem has been widespread prejudice about what metaphysical profile *sui generis* absences must have. As a result, it is commonly thought that any non-reductive account of absences would have to hold that absences are metaphysically mysterious. Consider, for instance, George Molnar's discussion of the prospects for absences as the truthmakers for negative truths.

If absences are to work for us as truthmakers, we have to take them ontologically seriously. Of course, absences are not *things*, nevertheless they had better not be nothings. They are certainly to be reckoned as a *kind of contents* of the world, very different from, and additional to, the kind of contents that the positive state[s] of affairs are. (Molnar 2000: 76-7)

Positive attempts at providing a non-reductive NSN account of absences have taken this conception rather seriously. As a result, however, such accounts suffer from a mysterianism that ultimately blocks them from conforming to the central motivations for reifying absences. There are two such attempts at characterizing absences, each of which takes great pains to walk the conceptual tightrope of holding that absences exist but are not things.

The first such attempt can be found in the work of C.B. Martin. According to Martin (1996: 58), absences are “localized states of the world or universe”. When we generally talk about states of the world, or states of things within the world, it seems that we are talking of the possession of some sort of property or relation by the thing in question. When we say that the world is in a constant state of increasing entropy, we are saying that the world has a particular property: namely that of increasing in entropy. When we say that a particular object is in a state of motion, we are saying that it has a particular property: namely, that it is moving.

It might thus be natural to say that an absence’s being a state of the world is simply equivalent to the world’s having a certain property.¹⁴ An absence of penguins is a state of some region of the world might be seen as simply consisting in that region’s having the property of being unoccupied by penguins. However, this is not how Martin conceives of absences. Martin’s approach is non-reductive, and so he does not want to identify absences with any of the sorts of things commonly accepted as existents. Absences are not entities, concrete or abstract – that is, they are not things like tables and chairs, or properties or relations. And so we cannot take the natural understanding of states – as the having of properties of some sort – and apply it to the case of absences.

In the context of Martin’s overall ontology, understanding what ab-

¹⁴Cf. Lewis (2004: 289 note 10).

sences are becomes harder still. For Martin's (1996: 60) ordinary ontology consists of particular things, properties, and relations serving as the constituents of concrete Armstrongian states of affairs (for whom such things are the building blocks of the universe). What are we to make of the talk of absences as states in this context? As we've seen, Martin maintains that absences don't belong to any of these familiar categories. George Molnar offers the following picture of what Martin may be up to:

Even if one regarded positive states of affairs as irreducible to their constituent first-order things, properties, and relations, that would still not allow one to place positive and negative states of affairs into the same category, or to regard them as, say, different species of a common genus. Irreducible states of affairs still have things, properties, and relations as constituents...Should we therefore say that negative states of affairs are complexes of non-existent elements? It seems that only Meinong had the courage to bite this bullet. The alternative to his view is to treat negative facts as ultimate and primitive. This would be a particularly deep primitiveness, since negative states are not only a new kind of thing, they are a new kind of kind of thing. They do not fit into the category into which ordinary positive states fit. (Molnar 2000: 76-77)

What emerges is that Martin's picture of absences as states doesn't mesh well with the overall reductive approach he takes to the positive states that feature in his ontology. But beyond that, what we are ultimately left with is a conception of absences that is almost entirely negative. Martin doesn't give

us any help in conceiving what the particular character of absences is. We are left with a new ontological category, with no details about the characteristics of members of that category. Not only are absences *sui generis*, they are utterly mysterious.

As a result, Martin's picture is tension with two of the central motivations for accepting absences. Consider first the motivation from causation. If Martin allowed that absences were causes, then perhaps there would be more pressure to accept his account of absences, mysterious as it is. But Martin does not make such an allowance. According to him, absences are causally relevant, but not causally operative. In more familiar terms, Martin's central claim is that absences are required for causal explanations, but they do not themselves serve as causes. But one who seeks to avoid absences, like Lewis, can admit that (when speaking with the vulgar) our best causal explanations for certain effects seems to commit us to such things as absences, while (when speaking with the learned) unloading the ontological commitments from such language. Similar problems result when it comes to perception. If in some cases, absences are understood as the proper objects of awareness, and they are not properties, relations, or things, then what is it that we're aware of?

Boris Kukso's (2006) account does not fare much better. Like Martin, Kukso maintains that absences are not entities of any sort. He also holds that the category of absence is basic and irreducible:

My analysis of absences is based on the ordinary notion that a contingent entity is one that can exist or fail to exist. I propose

to treat absence as a basic and irreducible category on par with existence or presence. It is not to be explained or analysed any more than existence is. It is a necessary and analytic truth that an entity is absent just in case it does not exist. Absences, according to my view, are not objects, things, or states of affairs. More importantly, absences are not negative facts. (Kukso 2006: 29)

In fact, if we delve into his account, we see that it's even difficult to say that there are absences. We might naturally think that absences are simply those things that are members of the category of absence. We might compare this with the relationship between the category of existence and the members of that category. The things that exist, the things that belong to the category of existence, are existents. If the category of absence is on par with existence, then presumably we should say that if something is a member of the category absence, then that thing is an absence. Yet is there even room to say that there are absences? Given Kukso's denial that absences are things, there certainly can't be any things to serve as members of the category of absence. Kukso's account, like Martin's, is ultimately mysterious. Given this conception of absences, it is likewise difficult to see how to accommodate the popular motivations for reifying absences.

Though Kukso does not hold that absences serve as relata for causal relations (since to do that they would have to be entities), he maintains that he can nevertheless allow for the causal relevance of absences. Kukso reasons as follows. According to the Eleatic principle found in Plato's *Sophist*, any

existent must make a difference in the causal powers found in the world. The Eleatic principle in essence forms a criterion for existence: only difference makers exist.¹⁵ This principle, Kukso holds, vindicates the existence of absences. We can determine whether the presence of a lid is causally relevant to the rate at which water boils by comparing situations in which the lid is on the pot of water to those in which the lid is not on the pot of water. The test reveals not just that the lid's presence has certain causal relevance, but that so too does the lid's absence. As Kukso says:

The difference in the causal order of the universe is the difference between the entity's presence and its absence. Since both the presence and the absence are required in order that there be a difference, both the presence and the absence are causally relevant. If we consider causal relevance in terms of marking a difference in the causal order of the universe, an entity's absence has as much causal relevance as the entity's presence. (Kukso 2006: 32)

The Eleatic principle is commonly understood to be about the causal *powers* of an object, i.e., the causal dispositions that an object has.¹⁶ If a putative entity lacks dispositional causal powers – that is, if it cannot cause anything – then we should not consider it in the realm of the real. Since absences are not entities on Kukso's account, it is not obvious how they *could* contribute to

¹⁵Sometimes, more weakly, it is taken merely as a criterion for justified belief in an entity. See Colyvan (1998).

¹⁶Cf. Armstrong (1978: 45-6), Ellis (1990), and Field (1989: 68).

the causal order, since they do not themselves have causal powers. The causal order of the universe is a nexus of causes. What affects that nexus are the entities that cause, the entities that are caused, and the properties that they have. Kukso's absences, however, do not enter into causal relations. They thus do not have the power to cause anything, or to affect the causal order. After all, affecting is a causal notion. Kukso, in essence, is taking liberties with the Eleatic principle, holding that even those things that are non-causal qualify as causal, and thus candidates for existence, in the way that they might figure in causal explanations.¹⁷

Kukso ultimately seems to have mistaken the way that something might figure in a causal *explanation* for its figuring in a causal relation. Kukso *does* establish that we can offer a causal explanation by citing a fact about what happens when a lid is not present on a pot of boiling water. However, this by itself falls short of establishing that absences actually make a difference to the causal order.¹⁸

That absences cannot cause on Kukso's account has important implications for the claim that they are perceived. Recall our discussion of the failure of a Meinongianism WSN theory of absences. Philosophers widely agree that causation is a necessary condition on successful perception. However, if absences cannot actually enter into the causal order, then it is unclear how they could be successfully perceived. Since absences on Kukso's account are not

¹⁷Colyvan (1998) has argued against just this sort of stretching of the Eleatic principle.

¹⁸See also Lewis (1986b: 220), Beebe (2004), and Varzi (2006) and (2007).

entities, it is unclear how else we could actually perceive them.

The source of the problem with these non-reductive accounts of absences is the mysterianism that blocks a clear avenue for accommodating the very motivations that speak in favor of reifying absences. That mysterianism, I submit, emerges from a tendency to think of absences as radically different from the kinds of entity we normally encounter, entities that can enter into causal relations or be the objects of perceptions.

One needn't subscribe to such a mysterian picture of *sui generis* absences. An obvious source of inspiration can be found in Casati and Varzi's (1994) theory of holes. For Casati and Varzi, holes are immaterial bodies that existentially depend on matter and its topological features, and they are involved in the causal order and can be perceived. One might maintain that absences are fundamentally similar. Of course, one would thereby incur a certain kind of debt. One would need to explain just how these immaterial bodies can cause, or how we can be perceptually aware of such entities.

Before actually pursuing such an account, however, it is first worth asking if there is any reason to prefer a reductive account to an account of the kind inspired by Casati and Varzi. Perhaps the most apparent worry with taking absences to be novel *sui generis* entities is the concomitant ontological inflation. Those who prefer Quinean (1948) desert landscapes might bristle at the thought of adding yet another kind of entity to one's ontology. Nevertheless, if we uncontroversially need to accept such entities in order to tell a plausible story about putative cases of causation by absence, or perception of

absence, or truthmaking by absences, such bristling is ultimately unjustified.

Setting up the dialectic in this way provides one avenue for settling whether we should be reductive or non-reductive reifiers (if indeed reification is necessary). If we cannot provide a suitable candidate to serve as the reduction base for absences, then we should be non-reductive reifiers. The primary goal of this section, then, is to determine whether or not there are any satisfactory candidates for a reductive reification. The ensuing discussion does not as a consequence force the theoretical choice between reductive or non-reductive reification. It does, however, settle whether there are any satisfactory reductive options to be had. The stakes are rather high: without a reductive option, the ontologically conservative among us (e.g., those who refuse to accept any *sui generis* absences) should ultimately deny that there are such things as absences. As such, the ontologically conservative become new conscripts in the battle over whether we must accept absences, whose charge is to explain away or defuse the putative motivations for reifying absences canvassed above.

In the next section, I will consider one reductive NSN theory that has been canvassed in the literature and find it wanting. The particular failings of this theory will lead naturally to a discussion of a novel theory of absences (of which there are both reductive and non-reductive versions available) that I shall develop and defend.

2.4.2 Negative facts in an NSN theory of absences

One way to develop an NSN theory of absences is to appeal to negative facts. On this view, absences simply are negative facts. Of course, in order to flesh out this WSN theory of absences, it is first important to understand what kinds of thing facts are intended to be on this construal.

Traditionally, facts have been conceived in two broad sorts of ways. The first is to take facts as fundamental constituents of the world. These are Russellian *facts* or Armstrongian *states of affairs* – entities that consist in particulars and universals bound together by instantiation. Historically, philosophers have struggled to understand what kind of entities *negative* facts of this sort could be, primarily since the kinds of entities thought to be required to build negative facts of this sort have seemed metaphysically bizarre. As Boris Kukso has pointed out, traditionally philosophers have seen three primary options for one who takes facts to be Armstrongian/Russellian worldly entities:

According to (1) the negative universal view, a negative state of affairs consists of a particular that instantiates a negative universal. According to (2) the negative element view, a negative state of affairs contains as many constituents as the corresponding positive state of affairs plus a negative element. Finally, according to (3) the negative form view, a negative state of affairs consists of exactly the same constituents as the corresponding positive state of affairs, but the universal and particular are combined in a different way.

(Kukso 2006: 29)

The primary problem with such conceptions of negative facts is that they rely on the sort of metaphysical negative/positive polarity. Absences, on this account, are metaphysically “negative” entities. One way to couch metaphysical negativity is to appeal to a certain kind of polarity at the level of reality. Graham Priest (2000) and J.C. Beall (2000) have defended the view that certain facts (i.e., concrete Armstrongian states of affairs) enjoy a positive and negative polarity. They maintain that this should be unsurprising since polarities in reality are familiar enough. As Priest puts it:

It is certainly the case that this polarity is built into reality. But there are lots of polarities built into physical reality (like, for example, being a left hand or a right hand, or the spin of an atomic particle). I do not see why metaphysical polarities should be any worse than these. (Priest 2000: 318)

The central problem with this approach, however, is that it simply is not clear what *metaphysical* positive or negative polarity could amount to, and neither Beall nor Priest do much to explain what it could be. Furthermore, as Julian Dodd argues, any attempt to further explicate this notion of polarity results in a dilemma:

The first horn we are familiar with already: if Beall and Priest’s ordered n -tuples are identified with [Armstrongian] facts, then polarities, *qua* objects supposedly found in facts, are inescapably mysterious. The second horn, which sees the polarity theorist retreat

to the thesis that his ordered n -tuples merely model facts, fails for a different, though equally conclusive, reason. The problem is not that it offers an account of the ontological nature of negative facts that makes appeal to mysterious, or kooky entities; it is that it fails to address, in any way, the metaphysical question we started with. Merely saying that facts are modelled by the kinds of set-theoretical entity introduced by Beall and Priest says nothing about what such facts (positive or negative) *are*. It merely provides us with a notation for a theory of facts, not an account of such facts' ontological nature. (Dodd 2007: 392)

Priest and Beall are to be seen as rejecting a famous supposition put forward by George Molnar (2000: 72) that “everything that exists is positive”. Such sloganeering is pernicious and should be avoided. It presumes that we have a grasp on what it would mean for an existent to be positive as opposed to negative. In order for us to understand what it is for something to be positive, we would also have to understand what it would be for it to be negative. Negativity at the level of reality, I maintain, is a notion on which we simply have no grasp. A better way to capture the intuition driving Molnar's claim is not to suggest that reality contains only positive things (which would imply that there is a positive/negative distinction to glom onto when it comes to reality), but rather that there is no such thing as a positive/negative distinction when it comes to the constitution of reality. Since the construal of absences under consideration relies on such a distinction, it is to be avoided in the pursuit of an NSN theory of absences.

As will emerge later, however, when I develop my preferred account of absences, one can revive the prospects for absences as Armstrongian/Russellian facts. One *could* take the relevant constituents of such facts to be the kinds of things I shall argue we should take absences to be. Since this conception of absences as Armstrongian/Russellian facts depends on that account, I shall accordingly postpone further discussion until that theory has been canvassed.

This brings us to the second conception of facts. On this view, facts correspond to true sentences. Thus, if a sentence *S* is true, then it is a fact that *S*. Moreover, the fact that *S* is *not* taken to consist in concreta, or anything constituted by concrete particulars. Given this terminology, it is natural to suppose that facts of this sort *just are* true propositions. Consider D.H. Mellor. Mellor takes care to distinguish facts from particulars, and the resulting account suggests that facts are here understood as true propositions:

For in my sense of ‘fact’, to say that *C* and *E* are facts is just to say that the sentences ‘*C*’ and ‘*E*’ are true, which tells us nothing about what in the world makes them true...I shall use the Latin word ‘facta’ (singular ‘factum’), dropping its dictionary restriction to ‘things done’, for the entities in our world, whatever they may be, whose existence or non-existence makes true statements true.
(Mellor 1995: 161-2)

The most natural conception of a fact-based NSN theory of absences – and the one that Mellor (1995) and (2004) endorses – has it that absences are simply negative facts: propositions that correspond to true negative existential

sentences. On this account, an absence of nitrogen from Mars would simply consist in the proposition corresponding to the true negative existential sentence ‘There is no nitrogen on Mars’. All there is to an absence is the truth of a particular negative existential proposition. Thus, in certain ways the fact-based NSN theory is in harmony with the spirit of David Lewis’s conception of absences: both stress the importance of negative existentials in evaluating claims about absences. Absence locutions are best understood as a species of negative existential talk. Unlike Lewis, however, this NSN theory does not go so far as to suggest that there are no absences, or that absences are bogus entities. Rather, the theory says that absences are simply a certain species of fact, namely the kinds of fact that correspond to true negative existential sentences. The fact theorist can be seen as generating entities to serve as absences by appealing to the following comprehension axiom:

Comprehension axiom for facts: For any sentence s that says that p , if it is true that p , there exists a corresponding fact that p .

Given this comprehension axiom, for any truth there exists a corresponding fact. If it is true that snow is white, then there is a corresponding fact that snow is white. When it comes to absences, the fact theorist holds that an absence-involving truth is best understood as a certain kind of negative existential. Corresponding to these negative existential truths are negative existential facts.

Can this negative fact-based NSN theory of absences accommodate the various motivations for reifying absences? First, consider causation. If absences cause, and absences are negative facts, then at least in some instances the relata of causation must be negative facts.¹⁹ There has been considerable debate about whether *any* facts (positive or negative) should be considered the relata of causation. After all, it is natural to think of causation as something that occurs in the physical world, a relation between concreta. When a bat strikes a baseball, sending it over the left field wall, causation occurs. Moreover, the intuitive idea goes, the causation that occurs is a relation involving the bat and the baseball, both of which are concrete objects. Call this the *grounded causation* intuition. The grounded causation intuition enjoys an immense amount of popularity. Indeed, for some, it is proof that causation cannot be a relation between facts. As Lewis puts it:

[W]e distinguish between the cause itself and the true proposition that describes it. For instance, we distinguish the explosion from the proposition that an explosion occurred at so-and-so place and time. The explosion caused the damage; the proposition is a necessary being, “abstract” in one sense of that multifariously

¹⁹Recall that we are here simply examining which views best accommodate the idea that absences really do stand in causal relations, while ignoring strategies which deny that absences serve as causes. In Chapter 3, we will explore the view on which things like Mellorian negative facts are to be thought of as causally *relevant* without being causally *efficacious*. On this view, the central place for absences is that of causal explanation. As such, absences are on this view to be thought of as inert in Ned Hall’s (2004) sense of causation as *production*, even though they might have purchase in the sense of causation as intimately linked with counterfactuals.

ambiguous term, and doesn't cause anything. (Lewis 2000: 100)

For those who believe causation is a relation between facts, the standard response is to concede that *something* relates the bat and the ball. This is ultimately an attempt to accommodate the grounded causation intuition, while denying that causation itself relates particulars. The grounding intuition holds that when we have causation, we (typically) have particulars related in an intimate way. The fact theorist agrees, but maintains that the relation between the particulars should not be confused with *causation* itself. Causation, they say, just is a relation between facts, with the appropriate canonical language of causation being of the form 'E because C' (which is a statement relating facts) instead of 'c causes e' (a statement relating particulars). Consider Jonathan Bennett, a proponent of the conception of facts under discussion:

Some people have objected that facts are not the sorts of things that can cause anything. A fact is a true proposition (they say); it is not something in the world but is rather something *about* the world, which makes it categorically wrong for the role of a puller and shover and twister and bender. That rests on the mistaken assumption that causal statements must report relations between shovers and forcers. I grant that facts cannot behave like elbows in the ribs, but we know what items do play that role – namely, elbows. In our world the pushing and shoving and forcing are done by things – elementary particles and aggregates of them – and not by any relata of the causal relation. (Bennett 1988: 22)

Here Bennett is obviously interested in accommodating the popular view that causation is somehow involved in our concrete world. Nevertheless, it is this accommodation of the grounded causation intuition – namely, that causation corresponds to particulars being linked in an intimate way – that ultimately threatens the viability of the NSN theory’s account of causation. We might expect that fact causation is *generally* accompanied by something in reality that answers to the relevant facts at issue. However, when it comes to causation involving *negative* facts, fact theorists commonly maintain that we cannot actually find *any* particulars linked in any intimate way. Mellor, for example, holds that in a range of cases in which absences cause, one finds that there simply are no particulars to be linked, even though there is a true statement of fact causation of the form ‘E because C’.

[S]uppose that Kim’s use of contraception causes her to have no children. The effect is a negative existential fact which cannot be reduced to Kim having negative or incompatible positive properties. That is, the predicate ‘has no children’ applies to Kim neither because she has the negative property of having no children nor because she has any positive properties. It applies to her simply because *no* particulars of a certain kind – children of Kim – exist...This and other such cases show that there are many true instances of ‘E because C’ that cannot be made true by any relation between the [concrete, truthmaking] facta that make ‘C’ and ‘E’ true, since no such facta exist. (Mellor 1995: 165)

Mellor's (1995) theory assents to three claims. First, that causation is a relation between facts. Causation links facts, and not particulars. Second, that there is genuine causation by absence. Sometimes, negative existential facts figure as the relata of causation. Third, while in *most* cases causation is grounded in relations between particulars like concrete states of affairs, the exception to this rule is found in causation by absence.

Yet there is a tension between these three claims. It is surprising to think that there actually is *any* causation linking facts when there is (allegedly) nothing in the world corresponding to these facts. It is strange to pay lip service to the intuition that where there is causation, there is *something* going on in reality while at the same time allowing that in some cases, there is causation without similar correspondence. If causation *sometimes* corresponds to relations among particulars in reality, why shouldn't it always? To say that causation by absence is an exception to this rule seems no *more* plausible than to simply reject that there is such a thing at all.

Mellor (2004) is aware that there is something *ad hoc* in holding that causation only corresponds to relations among particulars when it doesn't involve absences. He ultimately concludes, however, that the source of error is the grounded causation intuition. Once we abandon that intuition, we are free to hold that causation never *requires* grounding in the physical world, and thus that there is nothing strange about causation by absence not being grounded. The grounded causation intuition, according to Mellor, rests on what he takes to be the "theoretical prejudice" that causation must be a relation. As he puts

it:

[F]or causation to be a relation, statements of it...must also be made true by a relation holding between [facts like] C and E or [particulars like] c and e . It is this ontological assumption that I say the lack of relata in many apparent cases of causation [namely, causation by absence] should make us reject, to prevent an implausible restriction on causation's extension. (Mellor 2004: 318)

Mellor's primary defense of rejecting causation as a relation, and thereby also rejecting the grounded causation intuition, is that he wants to accommodate causation by absence. I agree that it would be an untoward restriction on the extension of causation to eliminate causation by absence. I disagree, however, that the real culprit is the grounded causation intuition, or by extension, the view that causation is a relation. The fault lies in our imagination in finding the right particulars to serve as either the relata of causation (if one denies that facts are causes) or the correspondents of causal relata (if one holds the view that causes are facts). If we can find the right sorts of particulars, then we can thereby avoid making the kinds of theoretical choices that Mellor makes. We need not, in particular, reject the grounded causation intuition simply to escape the claim that causation is relational and thus requires relata. What we need, then, if we are to preserve the reasonable grounded causation intuition in the face of the claim that absences cause, are the right sorts of particulars to serve either as causal relata or as correspondents to causal relata. Such particulars, I shall later show, are available. In the next

section, I shall consider the prospects for finding the right sorts of particulars in an alternative NSN theory of absences. Without the resources to accommodate the grounded causation intuition, the fact theorist faces the sorts of implausibility described above in seeking to meet the motivations for reifying absences.

There is also a more theoretical worry for a fact based NSN theory of absences in the realm of perception. If all cases in which we are aware of absences amount to our being aware of a certain kind of negative fact, then it seems one might argue that all perception of absences should be understood as a kind of fact-awareness, an awareness *that*. If there is a genuine distinction between fact-awareness and other kinds of awareness, and if a case can be made that certain instances awareness of absences are not best construed as instances of fact-awareness, then the NSN theorist of absences faces a theoretical obstacle.²⁰ To hold that one's awareness of absences consists in an awareness of certain kinds of fact does not in itself stand in opposition to the motivation for reifying absences based on perception. It does, however, present certain limitations in developing a theory of perception. It requires that one hold that there are no cases of awareness of absences that do not involve factive awareness, or awareness that something is the case. However, there is a central range of cases that is naturally taken to involve perception of absence that does not obviously require the deployment of *any* concepts

²⁰The distinction between fact-awareness and object or property awareness is nicely circumscribed in Drestke (1999: 104-109).

linked to negative existential facts.

The primary cases come from Sorensen's study of seeing darkness. According to Sorensen, when one walks into an unilluminated room, one has a characteristic kind of experience. The experience is one of seeing darkness. As mentioned, Sorensen holds that darkness is a certain kind of absence: namely, the absence of light. As Sorensen has it:

In pitch darkness, we at least see the darkness. We distinguish between black experiences that lock onto darkness and illusory black experiences. For instance, if a cave explorer is in a completely dark cave dreaming that he is in a completely dark cave, then he does not see the darkness of the cave - or the darkness of anything else. To see the darkness of the cave, the explorer must wake up and look around. The newly awake explorer makes a fresh connection with the darkness of the cave even if there is no discontinuity in his black experience. (Sorensen 2004: 459)

Sorensen (2008) has argued that dark experiences are more extensive as well. On his view, one also sees darkness when one sees a silhouette or a shadow. Sorensen claims that dark experiences do not *require* factive awareness of the sort that would be required if all seeing of absences involved awareness of negative facts. If Sorensen is right, then at least some cases of seeing absences are not also cases of awareness of negative facts. He offers two arguments in support of this view.²¹

²¹See Chapter 4 for an extended discussion of the issues involved in perceiving absences.

In attempting to build the case that perception of absences at least sometimes involves non-factive awareness, Sorensen first appeals to possible perceivers who fail to have certain sorts of beliefs on the basis of their experience:

Suppose kidnappers announce that they will blind their two hostages, Mrs. Atheist and Mr. Agnostic, with a laser blast to their retinas. Each of the hostages sees a flash of red light and then blackness. Mrs. Atheist infers that she is blind. Actually, kidnappers merely turned out the light after the red flash. Mrs. Atheist believes she is not seeing anything but she is really seeing the darkness of the room...A more revealing case is her co-hostage Mr. Agnostic. He is more circumspect than Mrs. Atheist. Mr. Agnostic neither believes nor disbelieves that he is blind. He thinks he does not have enough evidence to settle the issue and so is neutral about whether he sees anything. (Sorensen 2004: 463)

Sorensen holds that Mr. Agnostic's conception of how things are perceptually seems to block the claim that in seeing absence via seeing darkness, one is ultimately aware of a kind of fact. Sorensen (2004: 465) notes that Mr. Agnostic neither concludes that it is dark nor that he is not seeing anything. His experience is not accompanied by any of the sorts of beliefs one would expect were his awareness of darkness a factive awareness. Sorensen's argument here is somewhat unsatisfactory, as it implicitly suggests that subjects must have particular kinds of occurrent beliefs which have the very content at issue in

order to enjoy factive awareness. One might alternatively suggest, however, that such factive awareness is simply a case in which a subject deploys certain concepts *connected* to the notion of darkness, even if the subject is not aware that such concepts are being deployed.

Regardless of what we think of his first argument, Sorensen's second argument fares somewhat better. Sorensen suggests that since animals can see silhouettes, and since silhouettes are examples of darkness, then the awareness involved in seeing darkness is not best thought of as awareness of facts. Given Sorensen's claim that darkness just is a kind of absence, the conclusion is that seeing absences is not in all cases awareness of a negative fact:

If seeing silhouetted objects were cognitively demanding, brutes would not be able to see silhouetted objects. But purely contrastive seeing is not an ability peculiar to *Homo sapiens*. Aquatic predators frequently hunt from below. Light enters water from above, so prey are backlit. A shark that approaches a school of anchovies from the side will be dazzled by the light reflected by the anchovies' scales as the school sharply pivots in unison. Some sharks counter by driving the school toward the surface then lunging from below. The sharks see the anchovy silhouettes. They also see the anchovies. (Sorensen 2008: 34)

Sorensen here suggests that sharks (and other non-human animals) lack the concepts necessary for fact awareness, and as a result would be unable to enjoy such awareness. It is a contentious issue whether non-human animals

have any concepts at all, and by extension whether they have concepts necessary to be aware of negative facts. However, we can strengthen Sorensen's case without delving into this controversial issue. Concepts of darkness, and related concepts, do not appear to be *essential* to the experience one enjoys when one, for instance, walks into an unilluminated room.²² Imagine stripping away concepts of darkness or, indeed, the very notion of negation, from one's conceptual repertoire. Intuitively, the phenomenology involved in seeing darkness need not change. Obviously, a subject could no longer conceive of his experience as one of darkness, or as of an absence of light. However, the subject presumably would still enjoy an experience that is fundamentally similar at the level of phenomenology. After all, the darkness would still look the same way to the subject: namely dark. This would be the case even though, of course, the subject would lack the requisite concepts to describe it as such. If indeed non-conceptual creatures could enjoy experiences of darkness, as the above considerations suggest, then it seems reasonable to hold that at least in some cases, awareness of darkness is not best understood as fact awareness.

As a result, dark experiences pose a problem for a fact based NSN theory of absences when it comes to perception. If we accept that dark experiences are cases of seeing absence, and that such experiences do not require the absence related concepts or the concept of negation, then we must conclude that in at least some cases we can see absences without being aware of negative facts. We can see darkness without seeing *that* it is dark, or that light is

²²See Chapter 4 for further discussion of experiences of darkness.

absent, or that any sort of fact (negative or otherwise) is the case. The result then is that at least in some cases, awareness of absence is not fact awareness, but thing awareness. What remains is to determine what kind of thing could serve as the absence that is the object of awareness. Just as in the case of causation, one clear option is to look to alternative NSN theories of absences. Perhaps an alternative NSN theory could provide the objects of which we are aware when we enjoy experiences of darkness. The upshot for fact based NSN theories of absences is much like that in the case of causation: they may ultimately require the resources of an alternative NSN theory in certain cases to be uniformly satisfactory. Accordingly, in exploring other options for an NSN theory I shall also consider whether any option can provide such resources for a fact based NSN theory.

Finally, we can consider how the fact based NSN theory fares when it comes to the motivations for reifying absences that arise from the theory of truthmaking. A quick glance at the literature on truthmaking suggests that negative facts are clearly taken as contenders for being truthmakers for negative truths. It seems that the controversy surrounding negative facts is not over whether they can do the relevant truthmaking work, but rather, over whether we should accept that there are such things as negative facts. Negative facts, then, initially seem well aligned with the motivations for reifying absences.

These first appearances are rather misleading, however, as is revealed by considering what kinds of thing truthmaking entities are usually taken to

be. The most widespread construal of truthmaking has it that particulars of some sort or another, not facts of the sort currently under discussion, are what make truths true.²³ What makes it true that Socrates exists? Truthmaker theorists will typically say that it is simply Socrates himself, or some particular suitably related to Socrates, or one containing Socrates as a constituent. Even proponents of facts of the sort under discussion admit that they do not do any truthmaking work. For instance, Mellor (1995: 161-2) suggests that the entities that make truths true aren't *facts*, but rather the particulars that correspond to facts. Facts of the sort we're now considering are true propositions, but according to standard truthmaker theory, what makes them obtain and thus what makes the truths true, seems to be the array of particulars and properties bound by instantiation in the world. Indeed, such facts are best seen as the kinds of thing that truthmaker theses claim are *made* true by entities in the world.

A negative fact NSN theory is an initially attractive option for one who wants to reify absences. Yet, as we've seen with each motivation for reifying absences, *modulo* certain dialectical assumptions, the fact based NSN theory ultimately runs into trouble. For instance, if one wants to preserve the grounded causation intuition and allow for causation by absence, one needs to posit something to serve as or correspond to causal relata. If one wants to

²³Perhaps the most popular conception has been championed by Armstrong (1997) and (2004), on which truths are made true by particular instantiations of properties by objects, i.e., Armstrongian states of affairs. Mulligan, Simons, and Smith (1984) take truthmakers to be "moments", which on their theory are akin to Aristotelian accidents.

allow that dark experiences involve awareness of a kind of absence, then one needs to find some suitable thing of which a subject is aware when he enjoys such an experience. Finally, the motivations for reifying absences based on truthmaker theory seem to require some entity to make at least some of the negative truths true.

Thus, the primary failure of the fact theory is its inability to provide the right sorts of objects. Were we able to utilize the right sorts of entities to correspond to causal relations between facts, or to be the objects of perception, or to do truthmaking work, the fact theory could be salvaged. As we've seen above, in cases of causation by absence in particular, Mellor simply concludes that there are no objects fit to correspond to causal relations. This failure of the fact theory, however, could be seen as a mere imaginative failure, not a conceptual one. In the next section, I shall develop a theory that provides the very objects Mellor maintains are unavailable in reality. Thus, not only will the theory I develop offer an alternative to the fact theory of absences, its resources are available to the fact theorist.

Were we to need absences, either to deal with causation, perception, or truthmaking, it should be clear that the fact based NSN theory cannot *by itself* speak to these motivations for reification. We have not yet discovered what absences might be, were they to exist.

2.4.3 Location and absence: motivating a novel NSN theory

Each theory of absences surveyed thus far has suffered various problems, either from internal tension or from an inability to suitably meet the motivations for reifying absences. While these theories each have their own distinctive analysis of absence, it is interesting to note one feature that many of these theories share. These theories all take as the starting point of an analysis of absence an underlying conception of absence as *nonexistence*. This focus on nonexistence is of course natural. For one way to think of an entity as being absent, or to think of the notion of absence in general, is to conceive of it as nonexistent. Absence, one might naturally think, *must* therefore be primarily thought of in terms of nonexistence, just as presence is often naturally thought of in terms of existence. Call this conception *absence as nonexistence*.

However, nonexistence isn't the only sense in which we speak of things as being absent or in which the notion of absence becomes salient. Indeed, this alternative concept of absence arrives to us at a fairly early age. From our first days in school, we observe that teachers keep track of students by taking attendance. Taking attendance is a matter of dividing the set of students enrolled in a class into two subsets: the set of students who are *present* and the set of students who are *absent*. A student is marked as absent when the teacher observes that the student is not located in the classroom. Likewise, when we find ourselves missing loved ones who live far away, the source of our emotion is that the loved ones are located *elsewhere*. We locate ourselves in a certain place, and observe that our loved ones are not located in this

place. We miss our loved ones *because* they aren't where we are. We miss them because they are absent from our location. Call this conception *absence as non-location*. In the remainder of this section, I want to develop an NSN theory which holds that absences are (in some sense) regions.

Absence as non-location and absence as nonexistence are disparate conceptions which are nonetheless related in certain interesting ways. For example, if something is absent *qua* nonexistent, then it is natural to think that it is absent *qua* non-located. If we say that Socrates does not now exist, then it seems to follow naturally that Socrates is not now located anywhere.²⁴ If some alleged entity is not located at *any* place, if it is absent *qua* non-located from all locations, then many with naturalistic tendencies would maintain that that entity does not exist. That entity, the naturalist could hold, is absent *qua* nonexistent. Of course, many would simply deny such naturalist assumptions and maintain that there are entities that are non-located yet still exist, which reveals that these disparate conceptions while linked are nevertheless distinct.

The focus on location also provides a theoretical benefit over a focus on mere nonexistence. As we saw with the theories that focused on nonexistence, it is difficult to generate suitable entities that might serve as absences. I shall in this section develop an account whereby we we can use the notion of absence as non-location to generate entities that can (I shall argue) unprob-

²⁴The "now" qualification is important, since one who accepts a four-dimensional picture of time, whereby all times past present and future are equally real, could maintain that Socrates is eternally located at the places in space-time where he existed. See Sider (2001) for the most famous recent exposition of the four dimensionalist picture of time.

lematically serve as absences. To see how absence as non-location can do this, we must first carefully consider what is meant by an object's being located at a place. Consider how things are arrayed throughout space. Things occupy some locations, but not others. The notion of location I am interested in here is rather limited. Suppose that I am taking in a movie at New York's IFC Center, located in Manhattan at 323 W. Sixth Avenue. While I'm at the IFC center, we will happily say that I'm located in the following places (among others):

- The IFC Center
- Greenwich Village
- Manhattan
- New York City

While each of these offers a reasonable answer to the question of where I am located, each fails to give my *location* in the sense that I am interested in. This limited sense of location is offered by Casati and Varzi:

[Y]our *present temporary minimal address* gives your *exact location at this moment of time*, the region of space presently taken up by your body. John's present temporary minimal address gives his exact location: not Manhattan, but the much smaller space carved out of the air or or whatever medium he might be in (water, if he

is swimming; concrete, if he has betrayed his godfather). (Casati and Varzi 1999: 119)

An object's location, then, is to be understood as the exact region that an object occupies, or in Casati and Varzi's terminology, its present temporary minimal address. We can say that an object is *present* at exactly its present temporary minimal address. For instance, I am present at all those regions which my present temporary minimal address comprises. Let us label that region my *region of presence*.

My region of presence is part of a larger region. It is part of the region occupied by the room in which I am sitting. It is also part of the even larger region occupied by the city in which the room is located. The largest region of which my present temporary minimal address is a part spreads throughout the whole of the universe. Call this largest region the *spatial universe*.

There is another region that is of interest for our purposes. Consider that region that is the spatial universe minus my region of presence. Just as we can say that an object is present at its region of presence, so too we can say that an object is absent from that region that is the spatial universe minus its region of presence. Call this region from which an object is absent its *region of absence*.

So far I have been using a fairly intuitive conception of the relationships between spatial regions. To be a bit more rigorous, we can appropriate resources from the theory of the part/whole relation, or Classical Extensional

Mereology (CEM), provides the resources for defining the region of absence for any entity.²⁵ For any entity x , call x 's region of presence a . Given the spatial universe (SU) and any entity x , x 's region of absence can be defined as follows:

$$x's \text{ Region of Absence} = \text{SU} - a$$

In mereological terms, an entity's region of absence is the *complement* of its region of presence, which in CEM can be represented as ' \bar{a} '.²⁶ Here we have defined an entity's region of absence in terms of the mereological difference between its region of presence and the spatial universe. We can also define an entity's region of presence in terms of the mereological difference between the spatial universe and an entity's spatial complement.

$$x's \text{ Region of Presence} = \text{SU} - \bar{a}$$

One could also define regions of presence and absence set theoretically. For instance, one might define an entity's region of absence as the set theoretic difference between (or relative complement of) its region of presence and the spatial universe:

²⁵Though, to be sure, I am not endorsing nor need I be committed to all theses typically associated with CEM. See Leśniewski (1916) and Leonard and Goodman (1940) for systems of CEM. Simons (1987) offers an in-depth critical study of various versions of formal mereological systems.

²⁶Here I am presuming that the complement of a spatial region is itself a spatial region, and that any subregions of spatial regions are themselves spatial regions. It should be noted that this presumption is fairly innocuous, as it is accepted even by those who are dubious about the existence of complements for material objects. For instance, even though Peter van Inwagen (1981) famously rejects the existence of complements of parts of material objects (like Descartes-minus: the complement of Descartes's left leg), he happily talks as though subregions and complements of spatial regions exist.

$$x\text{'s set theoretic Region of Absence} = \text{SU} \setminus A$$

We could similarly define an entity's region of presence as the set theoretic difference between (or relative complement of) the spatial universe and an entity's spatial complement (the set theoretic difference between the spatial universe and the spatial region the entity occupies):

$$x\text{'s set theoretic Region of Presence} = \text{SU} \setminus A^c$$

For our purposes, CEM is preferable to set theory for defining an entity's regions of presence and absence. The reason for this is that spatial regions are most helpfully understood as *individuals* and not *sets* in the context of developing an NSN theory of absences. CEM allows for this. Why the preference for thinking of spatial regions as individuals? In the NSN theory of absences under development in this section, absences are to be thought of just as (in *some* sense) regions of absence. (The exact nature of this relationship between absences and spatial regions we shall explore in depth momentarily.) Recall again two of the motivations for reifying absences: causation and perception. If allowing for causation by absence and perception of absences in at least some cases requires that absences be entities in the concrete causal nexus (as I have suggested above), then set theoretic analyses of regions of absence would unfortunately seem to deliver that regions of absence are themselves sets.²⁷ Since sets are most commonly thought of as abstracta, then sets as

²⁷Since the basic relationship in set theory in membership, which can hold between indi-

commonly conceived won't allow regions of absence to meet the motivations for reification found in causation and perception.

2.4.3.1 The Locational NSN theory of absences

With these preliminaries in place, we can now offer the central tenet of the NSN theory of absences under development, call it the *locational NSN theory of absences*:

Locational NSN theory of absences (LTA): For all x , the absence of x is (or is intimately related to) x 's *region of absence*: \bar{a} , or equivalently, SU - a .

This characterization of LTA notes that absences are or are intimately related to regions of absence. The reason for this disjunction is that the *exact* relationship between absences and spatial regions is still left open. There is ultimately a theoretical choice that must be made about this relationship – namely whether it is numerical identity or instead something like constitution – that I shall discuss later. For simplicity's sake, I shall in the remainder of this section drop the “or is intimately related to” qualifier.

The spatial complement of a human being is (typically) very large – it is the size of the spatial universe minus its region of presence. The spatial

viduals and sets, one could presumably do the work required to revive the claim that spatial regions are individuals since regions could be construed as the *members* of the relevant sets and not the sets themselves. Thus, I don't want to say that one *cannot* use set theoretic notions to define regions of absence and presence or to characterize the spatial universe. Rather, it is simply easier for our purposes to use CEM.

complement of a human being's region of absence is (typically) relatively small – it is the size of that human being's region of presence. Just as the spatial universe has subregions as parts, so too absences are spatial regions that have subregions as parts. We are frequently *only* concerned with parts of absences. For instance, while my absence spreads through the whole of the universe, it has much smaller parts that are often of interest. There is my absence from New York City. There is my absence from the IFC Center. There is my absence from Auditorium One of the IFC Center. If you are expecting to meet me at the IFC Center, my absence from Film Forum is of little interest.

Each subregion contained by an absence is part of the larger absence. Since these subregions are parts of the larger absence, we can using CEM define a formula for generating a smaller absence from a larger one. Simply take the intersection of x 's absence and the relevant region of interest (call it y) from which the entity is absent. Call this *the method of intersection*:

The method of intersection: x 's absence from $y = \bar{a} \Delta y$

The primary tenets of LTA have been laid out. I now want to explore the varieties of absences generated by LTA. Once this has been discussed, I shall then move on to consider the theory's metaphysical commitments with respect to spatial regions, and the theoretical choices with which we are faced regarding the exact relationship between absences and spatial regions.

2.4.3.2 Absences of particularity, generality, and nonexistents

One very important feature of LTA is its generality. Up to now, our focus has been on the locations of particular ordinary objects. We have focused on, for example, my location, and LTA delivers that my absence is my spatial complement. However, LTA generates absences for *any* sort of entity.

Consider first properties and their instances. Whatever your view of properties, LTA can generate absences. Take for instance the view that properties are *transcendent* or *ante res* universals, i.e., multiply instantiated properties that are not themselves located in the concrete world, even though instances of those properties may be so located.²⁸ It follows from LTA that the absence of transcendent universals is the spatial universe. Their absence is *everywhere*.

If one accepts that *instances* of transcendent universals are located (namely where they are instantiated), then the absence of that property instance is the complement of its region of presence. Indeed, thinking of the absence of transcendent universals as *everywhere* can help explain the kind of frustration with this conception of properties often expressed in the literature. For instance, as Heil complains:

It is not the universal whiteness, but the whiteness of this page, that reflects light in a particular way so as to make the page look white. Indeed, our whole commerce with universals – our route

²⁸Platonic forms are the standard example of transcendent properties.

to them intellectually – is exhausted by encounters with instances. You have all the individual whitenesses, the instances of whiteness, plus whiteness itself. Subtract this last element – the whiteness itself – and you have a conception of properties as modes. A devotee of transcendent universals will regard the whiteness as crucially important. But is it? Imagine a pair of worlds, one in which there are the universals and their instances and one in which there are just the instances (a world of modes). How would the absence of universals make itself felt? (Heil 2005: 148)

On another view, properties are *immanent* or *in rebus* universals. On the most commonly used sense of ‘immanent’, universals themselves are wholly located everywhere they have instances (and so can be wholly located at more than one place at a time).²⁹ As a result, according to LTA, the absence of an immanent universal is one and the same as the intersection of the respective absences of all of its instances.

According to trope theory, there are no multiply instantiated properties.³⁰ There are only individual features possessed solely by the entities that possess them. For the trope theorist, the absences of tropes are their spatial complements.

²⁹See Lowe (2006: 99-100) for a discussion of another variety of immanence, where this is simply taken to mean that universals while not themselves located *must* have spatiotemporally located instances (and thus there are no uninstantiated properties). Since these immanent universals are not located their absences, like those of transcendent universals, would be the spatial universe.

³⁰D.C. Williams (1953) is perhaps the most influential advocate of trope theory, and as the quote above suggests, Heil’s (2005) preference for modes is a trope-theoretic preference.

That LTA can provide absences for properties and property instances is a happy result. For not only are particular absences, or absences of individuals, relevant when it comes to causation by absence, or perception of absences, or truthmaking for negative truths. General absences, or absences of *kinds* of thing are also relevant. Consider, for instance, the following sort of causal claim: An absence of oxygen from his diving bell causes the diver to asphyxiate. This is not to say that there is some portion of oxygen *o* such that its absence causes the diver's asphyxiation. Rather, it is to say that the lack of oxygen in the diving bell, a general absence (or better, a *specific part* of a general absence: the part of the absence of oxygen that intersects the diving bell's location), is to blame. Were this case to require the resources of absences, LTA could provide them. According to LTA, the absence of oxygen is the intersection of the respective absences of all the instances of oxygen, just as the presence of oxygen is the sum of the regions of presence of all the instances of oxygen. The absence of oxygen from the diving bell is the intersection of the absence of oxygen and the relevant region occupied by the diving bell.

LTA can also provide absences for *nonexistents* and *kinds of nonexistents*. Take, for instance, Sherlock Holmes. Sherlock Holmes does not exist. As a result, intuitively, Sherlock Holmes is not located anywhere. Trivially, the spatial complement of something that lacks location is the whole of the spatial universe. Thus, the absence of Sherlock Holmes is the spatial universe, the largest spatial region. Within that spatial region are smaller absences generated by the method of intersection discussed above: the absence of Sherlock

Holmes from London, or from Baker Street. The same holds for the mythical kind *unicorn*. There are no instances of unicorns. Thus, the kind *unicorn* is everywhere uninstantiated. The result is that the absence of unicorns is the spatial universe. Within that spatial region are smaller absences: the absence of unicorns from my office, or from San Francisco.

It might seem strange that Sherlock Holmes and unicorns share the same absence. The oddity is mitigated, however, when we reflect on what absences of nonexistents are absences of: namely, nothing. Indeed, given the dependence on existents and the spatial regions they occupy for individuating absences, one might hope that nonexistents would not generate unique absences. Given that there is nothing in reality to individuate Sherlock Holmes and unicorns (since there is nothing to be individuated), it should be seen as natural that so too nothing individuates their absences.

2.4.3.3 Absences are (spacetime) substances

In motivating LTA, I have been exploiting an intuitive, pretheoretic way of thinking of objects and the regions they occupy. I have, in taking advantage of this conception, spoken as though absences are to be thought of as regions. But regions of *what*? One might naturally think of locations in terms of spatial locations, and thus think of absences as spatial locations that are the spatial complements of the objects they are absences of. Since absences are the kinds of thing that are to serve as causal relata, or objects of perception, or truthmakers, it would seem to follow that space and spatial

regions (being identical to or intimately related to absences) would themselves have to be existent entities. However, when it comes to the fabric of reality, this intuitive conception is a bit of an oversimplification. For at least as contemporary physics is concerned, it is not *space* itself but rather *spacetime* that is a candidate for being a genuine entity.³¹ Thus, the regions that are relevant to LTA shouldn't be thought of as simply as regions of space, but instead as regions of *spacetime*.

To borrow some familiar terminology, given that absences are to be thought of as regions of spacetime, and given that I must think of spacetime as a genuine entity, I must employ a *substantival* and not *relationalist* conception of the spacetime manifold.³² Relationalism about spacetime is typically interpreted as the view that there is no substantival spacetime, and that all talk about space can be reduced to talk about spatiotemporal relations between objects.

Obviously, substantivalism is a commitment not to be taken lightly.³³

³¹Though there are conceptual connections between space and spacetime, it is unclear whether we should think of space and time as separable constituents of spacetime. Cf. Nerlich (2004: 282).

³²The *locus classicus* for substantivalism is Newton's (1687). Leibniz is traditionally treated as the philosophical source of relationalism. More recent substantivalists include Baker (2005), Brighouse (1994), Field (1985), Hudson (2006), Maudlin (2007), Mundy (1992), and Nerlich (1994) and (2004), while relationalists include Barbour and Bertotti (1982), Belot (2000), Pooley and Brown (2002), and Sklar (1974). A related view, *super-substantivalism* or *monistic substantivalism*, has it that ordinary objects themselves are one and the same as the substantival spatial regions they occupy. I do not endorse and shall not further address supersubstantivalism here. See a discussion of the view in Sider (2001: 110) and a defense in Schaffer (2009).

³³For compelling arguments for substantivalism see Baker (2005) and Earman (1989). Maudlin (2007: 89-9) argues for substantivalism and answers some recent attempts to revive

There are reasons, however, that one needn't be wary of LTA simply because of its commitment to substantivalism. For one, as Schaffer (2009: 132) notes, at present substantivalism "is the consensus view among philosophers of physics", so one needn't worry that a commitment to substantivalism is outmoded or contrary to our current best scientific theories.³⁴

Second, it remains unclear whether the typical motivations for relationalism are well founded. For instance, as Nerlich notes:

The advantages of relationalism seem now to lie wholly in its ontic economy and its epistemic immediacy. These now look like matters of rather fine detail...Relationalists have tended to focus less on the immediacy of the relations and more on their adequacy for various tasks. I believe that relationalism's tendency to postulate whatever objects are needed for its work remains dubious, as does the postulation of space-time as a useful fiction. (Nerlich 2004: 310)

Ontic economy in a theory is an advantage only if that theory can explain all of the relevant data. There are independent arguments, however, that relationalism fails to explain certain data. First, Baker (2005: 1302) argues that relationalism about spacetime must be false because it cannot account for the causal powers of spacetime with regards to gravitational radiation.³⁵

relationalism.

³⁴Indeed, as Earman (1989) and Maudlin (2007: 87-9) note, they are perhaps *required by* our best scientific theories.

³⁵That this argument is based on the causal relevance of spacetime serves to bolster the claim that absences cause. We shall explore this in depth in the next chapter.

As Schaffer (2009: 132, fn 4) points out, Maudlin (2007: 87-9) maintains that substantivalism is required to “be able to define the distance via length of spatiotemporal path”.

One might also think of the motivations for reifying absences as ultimately providing considerations in favor of substantivalism. If absences are required to do causal work or be the objects of perception, and LTA either is or is required by the best theory of absences, then that in itself is reason to think of spacetime and regions thereof as genuinely existing objects. At the very least, the motivations for absences can be seen as a new challenge to the relationalist.

2.4.3.4 The relationship between absences and spacetime regions

LTA states that absences of entities stand in an intimate relationship to the regions of absence of those entities. However, this leaves open what the exact nature of the relationship is. A purely reductive account of absences would presumably seek to identify absences with regions of absence. However, there is an important fact about absences that must be accounted for before we blindly assent to the view that absences are numerically identical with regions of absence. What will emerge in this section is that LTA can accommodate a variety of views about the relationship between absences and spacetime regions.

Objects move. Objects also grow and shrink in size. As a result, they

occupy different regions of spacetime at different times.³⁶ Thus, my region of absence varies from time to time. As I walk from one side of the room to the other, at time t , my region of absence is region A , while at time t' , my region of absence is region B . Region A is not identical to region B . So how can my absence at t be one and the same as my absence at t' ?

This question presents a theoretical choice, which determines our options for the exact relationship between absences and spacetime regions. As I shall now show, given the fact that objects occupy different regions of spacetime at different times, we can given LTA accept at most two of the following three theses with regards to absences:

Absences persist: Absences persist through change, like the changes in spatiotemporal location that come with the motion of the objects of which they are absences.

Absences endure: If absences persist, they do so by *enduring*, i.e., by being wholly present at every moment at which they exist (e.g., not by *perduring*, or having temporal parts).

Reductionism about absences: Absences are identical with spacetime regions.

Suppose we accept reductionism about absences. Thus, an absence is to be identified with a spacetime region. Now suppose we also accept persistence.

³⁶I leave open the question of whether spacetime is dense or pointy.

As I walk from one room to another, I occupy different regions of spacetime. Since my absence is my spacetime complement, so too my absence occupies different regions of spacetime. The claim that absences endure requires that an absence is wholly present at every moment at which it exists. Thus, if we want an absence to persist from time t to time t' by enduring, then the spatiotemporal region with which the absence is identified would have to be wholly present during each moment of that temporal stretch. However, no region of spacetime is *wholly present* for any temporal duration.³⁷ Thus, we cannot accept reductionism while also accepting that absences persist *and* that they persist by enduring.

What can we say with regard to absences if we want to be reductionists *and* allow that they persist? We can hold that absences persist by maintaining that they *perdure*, or persist by having temporal parts.³⁸ Consider the region of spacetime that I occupy from noon to midnight. That spatiotemporal region persists by having temporal parts (namely smaller spacetime regions, which themselves have temporal parts). Thus, my absence can be identical with that perduring spacetime region.

Some hold that enduring and perduring objects are incompatible.³⁹

³⁷If spacetime is constructed from spacetime points, and each spacetime point is momentary, then spacetime points have no extended duration. If spacetime is dense, then each spacetime region will persist through an extended time by having spatiotemporal parts over that duration.

³⁸This is consistent with either the worm theory of Lewis (1986c) or the stage theory of Sider (2001). I will for simplicity's sake put the point such that it is neutral with regard to whether one accepts the worm or stage version of perdurantism.

³⁹See Carter and Hestevold (1994) Merricks (1995) and (1999) for arguments for this

Thus, one might accept that all entities that persist do so by enduring. As a result, one might also believe that absences are identical to spatial regions, and that *were* absences to persist, they would do so by enduring. Since spacetime regions don't endure, absences (being identical with spacetime regions) don't endure and, thus, don't persist. This view can be accommodated in the following way. On this view, an object's absence is identical to *whatever* momentary region in spacetime happens to be the complement of its region of presence. When it moves, or as time passes, that object's momentary absence ceases to exist, and is replaced by a new absence, identical to whatever region is then the complement of my region of presence at that moment. This view is similar to *mereological essentialism*, the view Chisholm (1976) famously endorses with regard to ordinary material objects. According to Chisholm, the parts that an object has are essential to it. Objects cannot gain or lose parts. They simply go out existence and are replaced with new objects. What we think of as persistent objects are merely useful fictions constructed out of all the many mereologically inconstant objects.

If we accept that absences persist and that they persist by enduring, we must reject reductionism about absences. One could do this by, for example, maintaining that absences are *sui generis* entities *constituted by*, but not identical with, spacetime regions. Such a view would be similar to views according to which the constitution relation holds between ordinary objects and the masses of matter that constitute them. One interesting advantage of

incompatibility claim. Sider (2001) makes a convincing case that such arguments fail.

the constitution view for absences is that it does not face one common objection to the constitution view for ordinary objects. It is sometimes objected that two material entities like an ordinary object and a mass of matter cannot occupy a single location.⁴⁰ One cannot put two books in the exact same location. There is no parallel objection to the effect that some entity could not occupy the same location as a spacetime region. After all, we typically think of objects as occupying spacetime, and so as in the same location as the spacetime region it occupies.

Finally, we might maintain that absences persist by perduring, but reject reductionism. One could here take something rather like the constitution view just sketched. On this view, absences are *sui generis* entities that perdure. One natural way of cashing out this view is to treat absences as *processes*.⁴¹ On this view, an absence is a persisting entity that is constituted by various regions of spacetime at different times. Just as a (non-momentary) event is not wholly present at one time, so too one could maintain that a (non-momentary) absence, being event-like or process-like is not wholly present at any moment in its career. Like the reductive perdurance view mentioned above, on this view absences persist by perduring, though unlike that view, absences pass through (or are constituted by) the regions of spacetime with which they are associated.

⁴⁰See Wiggins (1968) for a statement of this objection. Constituted *sui generis* absences still face common objections like the so-called “grounding objection” posed by Zimmerman (1995) and Sosa’s (1987) worry that constitution leads to an unnecessary and unstoppable multiplication of entities, an “explosion of reality”.

⁴¹For representative defenses of the constitution view see Wiggins (1968), Johnston (1992) and Baker (1997). See Karmo (1977) and Zimmerman (2004: 506-508) for discussions of the process view.

This view simply treats absences as a kind of process. One might alternatively want to think of absences as perduring entities that *undergo* processes but are not themselves to be thought of as processes.

As should be clear, one has various options with regards to the relationship between absences and spacetime regions. What kinds of considerations might guide us in making a choice? We don't appear to have many (or perhaps any) pretheoretical beliefs about the metaphysical nature of absences (witness the variety of theories of what absences might be already canvassed). As a result, intuition itself is unlikely to force a choice. The theoretical decision might instead be forced by other commitments one has about whether one wants a reductive theory of absences, or views about whether and/or how things persist. For instance, one with reductionist leanings will clearly want a version of LTA that identifies absences with regions of spacetime. This is an important virtue of LTA, since it allows flexibility with regard to other theoretical commitments one might have.

Alternatively, certain features we take absences to have might drive one to think that the view that absences are identical to spacetime regions is simply untenable.⁴² Take a case where both beer and snakes are absent from my kitchen. On the identity version of LTA, since both are absent from the kitchen, the method of intersection will deliver that the absence of beer from

⁴²Thanks to Adam Pautz for bringing this point to my attention. The following is inspired by Kit Fine's (2003) language-based defense of an argument from Leibniz's Law that a statue and the lump of clay from which it is made cannot be identical since the ways we speak about them allegedly reveal that they must have different properties.

the kitchen and the absence of snakes from the kitchen will be identical to the *same* region. However, it appears that we can attribute different properties to the respective absences. We might say, for instance, that the absence of beer from the kitchen is unfortunate, while the absence of snakes from the kitchen is not. By Leibniz's Law, since the two absences appear to have different properties, are we not then on pain of contradiction forced to say that the relevant absences are *not* identical to the particular spacetime region? We need not be. The simplest strategy for one who prefers the identity version of LTA is to here maintain that this example introduces an intensional context.⁴³ As such, one can simply adopt a neo-Fregean strategy to explain away the temptation to hold that the absence of beer from the kitchen and the absence of snakes from the kitchen have different properties, even though they do not.⁴⁴ On this view, the intensional context brings with it referential or predicational shift, rendering the anti-identity argument invalid.

There is also an interesting result for one who might prefer a *sui generis* theory of absences. Unlike the *sui generis* theories discussed earlier, no questionable notions like metaphysical negativity or polarity at the level of reality undergird the analysis of absences in LTA. Of course, one who wants to develop a *sui generis* account might have to justify his choice, given the available reductive options for identifying absences and spacetime regions in LTA.

⁴³A more complex, metaphysically extravagant option is to maintain that the absence of snakes from the kitchen is identical to one spacetime region, and that the absence of beer from the kitchen is identical to a distinct co-located spacetime region.

⁴⁴This is a variant of King's (2006) response to Fine's argument.

2.4.3.5 Absences of spacetime: an objection to LTA?

David Lewis very briefly considers, and quickly dismisses, something like LTA:

We could reify absences reductively. We could identify absences with comparatively uncontroversial objects that, as others would say, are somehow associated with those absences...[W]e could identify an absence with a bit of unoccupied spacetime, if we were not such uncompromising combinatorialists as to countenance an absence of spacetime itself. (Lewis 2004: 282)

Lewis's worry is that a theory like LTA cannot account for at least one kind of absence: an absence of spacetime itself. Of course, LTA generates absences for subregions of spacetime: take any subregion of spacetime and define its absence as its complement. What Lewis has in mind, however, are cases in which one countenances a region containing nothing at all, not even spacetime. There are two such kinds of absences of spacetime. The first is a localized "hole" in an otherwise normal spacetime. The second is a general absence of spacetime: an absence of the entire spacetime system.

With regard to the first kind of absence, an LTA theorist can simply hold that it is not clear whether such absences are genuinely possible. After all, it is difficult to make sense of a "hole" in the fabric of spacetime.⁴⁵ Lewis's

⁴⁵After all, even black holes are not accurately construed as holes in the fabric of spacetime. As Curiel and Bokulich (2009) put it, they are to be thought of as "regions of spacetime from which nothing, not even light, can escape."

discussion of such putative holes reveals the conceptual difficulty:

Spacetime itself, if curved, can serve as a repository of energy...The void, on the other hand, is entirely empty. Thus, if there is a vacuum within these four walls, there may be quite a lot of objects between the walls that are capable of exerting forces and supplying energy. Whereas if there is a void within these walls, then (even though the walls are some distance apart) there is nothing at all between the walls. What? – Not even any spacetime? Not even any flat, causally inert spacetime? – No, not even spacetime. Nothing at all. (Lewis 2004: 277-8)

What is most difficult to comprehend about the void in Lewis's discussion is *how* a void could lie between the four walls, or indeed, be *located* anywhere within a spacetime system. If a void is exactly between four walls, and the four walls are a certain distance apart, then it would seem that void occupies a region between the four walls. What, however, *could* separate these four walls? That there is a region separating the four walls seems to bring it with a conception of a region of *spacetime* lying between the four walls.⁴⁶ Given the difficulty in conceiving voids as such, perhaps we should maintain that voids as described by Lewis are simply not possible. Such a position is only a problem for a certain kind of uncompromising combinatorialist about modality. In particular, as Lewis (2004: 278) notes, it is a problem if such

⁴⁶As does the evocative, though conceptually challenging, imagery of a person being cast into a void.

a combinatorialist maintains the walls and the spacetime between them are *wholly distinct* existents. So much the worse for the uncompromising combinatorialist: one might treat this discussion as reason to think that one simply should not combine an uncompromising combinatorialism with a metaphysical view that treats objects and spacetime as *wholly distinct* entities.

What about a general absence of spacetime? Certainly it seems possible that there are worlds in which there is no spacetime. Perhaps there are worlds in which there are only entities that exist outside of spacetime (a world of abstracta, or of a transcendent God), and so no metaphysical need for a spacetime to contain them, or perhaps there are empty worlds in which there is nothing at all. The possibility of such worlds is only a problem for LTA if one ignores the distinction between two notions of absence canvassed at the beginning of this section: absence as nonexistence and absence as non-location. Of course, if there is no spacetime, then one cannot use LTA to generate an object which might serve as the absence of spacetime. Nevertheless, LTA can still make sense of what one might mean when speaking of a general absence of spacetime. A general absence of spacetime is an example of absence *qua* nonexistence. As such, we can endorse LTA and say that we should understand statements about absences of spacetime in the same way that Lewis (2000) recommends we understand *all* absence statements: as simple negative existentials that beg off ontological commitments. To say that there is a general absence of spacetime is simply to say that in an empty world, there is no spacetime.

2.4.3.6 LTA and competing NSN theories

LTA is in its own right a theory of absences. However, LTA has utility even if one wants to treat absences as other kinds of entities. Recall the negative fact NSN theory discussed above. The primary problem with that theory was that in central cases, it could not provide entities in concrete reality corresponding to the relevant negative facts. So, for instance, in any putative case of causation by absence, the negative fact theorist was forced to reject the grounded causation intuition, maintaining that whenever an absence caused, there was nothing corresponding to causation at the level of concrete reality. Likewise, the negative fact theorist was committed to saying that in any case of perception of absences, perception would have to be understood always as a rather intellectual affair, a matter of deploying *concepts* related to the notion of absence.

What should now be clear is that a negative fact theorist can utilize the resources provided by LTA to steer clear of such problematic claims. How might LTA be co-opted by a negative fact theory of absences of the sort considered earlier? When it comes to causation by absence, a negative fact theorist can maintain that the negative facts involved in causal relations *correspond* to the entities in concrete reality provided by LTA. Thus, the negative fact theorist can maintain that causation involves facts while still preserving the grounded causation intuition even in the case of causation by absence. In Sorensen-style cases where it is reasonable to suppose we have non-factive perceptual awareness of absences, the negative fact theorist can maintain that

what we are aware of aren't facts, but rather LTA generated entities that correspond to such facts about absence.

LTA can also be utilized in a different kind of negative fact theory. Recall that facts can be construed (with Mellor and Bennett) as proposition-like, or instead (with Armstrong and Russell) as object-like. As discussed above, traditional attempts to provide object-like absence-involving facts, or *states of affairs*, hinge either on mysterious *sui generis* entities or on a questionable conception of metaphysical negativity. However, LTA as formulated now allows for rather unmysterious object-like states of affairs to serve as absences.

Since states of affairs are conceived of as entities that involve an object's instantiating a property, we can use the entities provided by LTA to generate states of affairs as follows. Given a reductive treatment, a state of affairs of absence can be defined as a region of spacetime's instantiating the property *being an absence of x*, or to be more precise, *being an absence of x from y*. These instantiated properties are far from mysterious. Rather, as seen above, they are analyzed, respectively, in terms of an object *x*'s spacetime complement or the intersection of the spacetime region *y* and *x*'s spacetime complement. Were one to prefer a non-reductive or *sui generis* treatment of states of affairs of absence, one could instead analyze it as the instantiation of such properties by the *sui generis* entity *constituted* by the relevant spacetime region. On a non-reductive approach, instantiating properties like *being an absence of x from y* will be a more complex affair than instantiating simple relations of complementarity. It will involve, instead, a constitution relation between an

object's spacetime complement and the absence. Thus, one who chooses a non-reductive option thereby incurs a particular explanatory burden: namely, to explain how it is that such a constitution relation holds, and to explain why we should think such a relation holds.

LTA not only provides a theory of absences, it also serves to rescue competing theories of absence. Thus, even if one were committed to a Mellor-style fact theory regarding absences, one could nonetheless use LTA to sidestep some of the problems that Mellor's theory faces. Likewise, if one were committed to an Armstrong or Russell-style conception of absences as states of affairs, LTA provides a way for building that theory while avoiding unnecessary mysterianism or deploying a conception of absences as metaphysically negative.

2.4.3.7 Putting LTA to work

LTA is a theory for one who wants to be an absence reifier, reductive *or* non-reductive. However, recall the motivations for reifying absences: causation by absence, perception of absence, and truthmaking by absences. LTA is a *satisfactory* reifying option only if it is able to meet the various motivations. What I now want to demonstrate is that nothing about LTA in itself prevents it from meeting the *minimal* requirements for conforming to these motivations.

LTA has a relatively easy route for allowing that absences cause, no matter *what* one takes the relation of causation to be. The standard conception is that causation is a relation between events, and of events as property ex-

emplifications by objects at times. Since absences are spacetime regions (or constituted by them), and thus qualify as objects, there is nothing stopping them from being among the constituents of an event. Thus, they meet the *minimal* requirements for serving as causes. After all, we think of events as having spacetime locations, and so as participating in events. LTA's absences can thus be put to work in an event theory of causation.

Of course, there are other conceptions of the relata of causation. None of these other conceptions of causation would make causation by absence inconsistent with LTA. For instance, were one to treat the relata of causation as object-like states of affairs (as Armstrong (1997) does), we could simply build states of affairs out of absences, as discussed above. Were we to treat causation as involving facts (as Mellor and Bennett do), we could as mentioned utilize the entities involved in LTA to correspond to absences *qua* facts, thereby salvaging the grounded causation intuition. Finally, were we to treat the relata of causation as properties, or property instances, or tropes, we could look to the property of *being an absence of x* or *being an absence of x from y*, which under a reductive treatment are analyzed in terms of spacetime complements of objects.

Though LTA's absences can meet the minimal requirements for serving as causes, one might have worries about whether absences really *can* serve as causes. For instance, one might in general be concerned with attributing to spacetime *any* causal powers. If spacetime is causally inert, then it simply is not suited to stand in causal relations. As Lewis intimates above, space-

time can sensibly be thought of as a repository for and transmitter of energy. Moreover, as Baker (2005) argues, there are other reasons for attributing causal powers to spacetime, since the causal efficacy of spacetime explains data about gravitational radiation. Thus, though it might intuitively seem unnatural to consider spacetime as the kind of thing that can get bound up in causal relations, there are independent theoretical reasons against viewing spacetime as causally inert.

Since on LTA absences are objects, they are at least *candidates* for being the objects of perception. Thus, they meet the minimal requirements for serving as objects of perception, as required by the motivation for reification based on perception. One obvious worry, however, is whether regions can ever be visible or otherwise detectable (directly or indirectly) by the senses. If regions are *never* directly or indirectly sensed, then obviously they will not do to serve as objects of perception despite their meeting the minimal requirements for being objects of perception.⁴⁷

Finally, since LTA provides objects to serve as absences, one can utilize them to serve as truthmakers for negative truths, and thus to solve one persistent problem for truthmaker maximalism (according to which *every* truth has a truthmaker). Take, for instance, the truth of the proposition *that Sherlock Holmes does not exist*. With LTA, one can maintain that the truthmaker

⁴⁷I shall take up this issue further when I pursue the perception of absences in depth in Chapter 4. I shall show that *contra* the intuitive claim that regions are never visible, there are several considerations that reveal that, given a natural and popular conception of seeing, in various cases we *can* be counted as enjoying visual awareness of spacetime regions.

for that truth is (or is constituted by) the spacetime manifold (or a state of affairs thereof), since Sherlock Holmes's absence is to be identified with (or is constituted by) that manifold (or a state of affairs thereof). Similarly for the truth of a proposition like *that Paul is not snub-nosed*. In this case, the truthmaker for that truth is the intersection of the absence of the property *being snub-nosed* and the spacetime region Paul inhabits (or a state of affairs thereof).

2.5 Conclusion

As stated at the outset, the motivations for reifying absences place a constraint on a theory of absences. Were we to need to reify absences, they should be seen as the kinds of thing that can speak to the motivations in favor of reification. As a result, the study above presents three candidate theories for what absences could be. The first theory is Mellor-style fact theory. A second is an Armstrong-style state of affairs theory. Finally, there is the LTA theory that I have developed above.

While one has the option to choose between these three theories, it cannot be ignored that even if one chooses a competitor of LTA, it would behoove one nonetheless to utilize the resources of LTA. The Mellor-style negative fact theory can use LTA to retain the grounded causation intuition, provide suitable objects for non-factive awareness of absence, and generate suitable truthmakers for negative truths. An Armstrongian state of affairs theory can use the resources of LTA to serve as constituents of the relevant states of affairs,

thereby avoiding mysterianism or an unmotivated commitment to metaphysical negativity. Without LTA, it is unclear how exactly absences as construed by rival theories can meet the motivations for reification.

While we have canvassed the terrain when it comes to the theoretical question of what absences could be were they reified, the *ontological* question regarding absences has not yet been answered. We have not discovered whether there are any contexts in which absences should be reified. It is to these questions that I shall now turn.

Chapter 3

Causation and Absences

3.1 Introduction

In this chapter I shall examine the putative problem of negative causation and whether the absences of LTA discussed in Chapter 2 might be of service in addressing this problem. First I offer two types of causal statements, positive and negative, and motivate the idea that each corresponds to a distinctive kind of causation. Negative causation, on this view, is a special kind of case of causation with distinctive kinds of relata. I then consider various strategies that resist the idea that negative causation is a special case of causation. I shall show that each of these strategies ultimately falls afoul of some intuitive desideratum for either causal explanation or for causation itself. I shall explain how the absences of Chapter 2 can be adapted to the case of causation. The absences of Chapter 2, as we'll see, can do lots of necessary work in the realm of causation, and they can do so in a way that avoids many of the problems associated with alternative approaches to negative causation.

3.2 Two kinds of causal statements

We often make causal statements by employing solely *positive* information. That is, many times our causal talk is in terms of something's being the case bringing about something else. When I drive a car into oncoming traffic, I thereby cause an accident. When I press the detonator of a bomb, a signal is sent to the triggering mechanism, and the bomb thereby explodes. During monsoon season, rainfall can typically cause flooding. In discussing such cases, then, we can offer statements of the following form:

- (1) Driving the car into oncoming traffic caused the accident.
- (2) Pressing the detonator sent a signal to the triggering mechanism, thereby causing the bomb to explode.
- (3) The rainfall caused the flood.

It is not uncommon, however, for us to provide structurally similar statements that employ *negative* information. Sometimes our causal talk mentions something's *not* being the case. As anyone who has suffered a busy highway knows, a traffic accident can be caused by someone's *not paying attention*. One pulls out his cell phone, engages in an engrossing conversation, and inadvertently swerves into the path of an oncoming car. Likewise, as Jonathan Schaffer (2004: 198) has pointed out, a bomb can be wired such that when the detonator is pressed, it blocks an inhibiting shield that normally prevents the current generated by the pressing of the detonator from reaching the triggering

device, thereby triggering an explosion. It is natural here to say that since the inhibiting shield was *inoperative* or *not present*, an explosion occurred. As has often been noted, conditions of drought (there not being sufficient rainfall or water) can lead to more disastrous consequences, like the spread of disease. Just as we can offer statements like (1) – (3), we can also offer statements that employ negative information, like:

(4) Your *inattentiveness* (your *not* paying attention) caused the accident.

(5) When the detonator was pressed, the inhibiting shield (which normally blocks the triggering device) became *inoperative*, thereby causing the explosion.

(6) The *lack of rainfall* (its not raining) caused the epidemic.

(4) suggests that the accident occurs because of something that you *omitted* doing (namely, paying attention to the road). (5), on the other hand, suggests that the bomb detonated because some process that had previously shielded the triggering device was *prevented*.¹ (6) suggests that the lack of a certain condition brought about a certain condition, namely, an epidemic.

Prevention and *omission* are two of the primary cases in which negativity figures in causal statements. A moment's reflection reveals the multitude

¹To be precise, this is actually a case of *double prevention*: you prevent something that prevents an explosion. Cf. Hall (2004: 241). For the present time, we can ignore this subtle distinction and focus merely on the phenomenon of prevention itself.

of cases in which negative information features in some of our paradigmatic causal statements. *Lack* of water from the soil (there *not* being sufficient water in the soil) causes plants to die. An *absence* of oxygen from the diving bell (there not being oxygen in the diving bell) can cause a diver's death. Moreover, just as such negative information is employed in causal statements of our ordinary language, it also figures in scientific explanations of particular phenomena. Schaffer (2004: 202) points us to this example:

When an electron (which is a negative charge carrier) is freed from the atom, it leaves behind a *hole*, or the absence of an electron (which acts as a positive charge carrier). Free carriers are generated when electrons have gained enough energy to escape their bonds to the atom and move from the *valence band* to the *conduction band*. This process is called "electron-hole pair generation". Electron-hole pairs can be created by any mechanism who delivers sufficient energy to an electron, including absorbing energy from light (as in a photo diode) and thermal excitation (absorbing heat energy). (Mason 2000: 4)

Given that our negative causal statements, ordinary and scientific, employ negative information, it might be tempting to think that such statements themselves have metaphysical implications. One might think that such statements about omissions and preventions reveal that omission, prevention, and the other cases in which causal statements contain negative information constitute a special *kind* of causation. The reasoning is rather simple. Assume

that causal statements of the sort above typically specify causal relations. Under this assumption, if a causal statement employs *ineliminable* negative information, we might naturally think that the negative information points to a relatum in a causal relation. Given that we specify that relatum with ineliminable negative information, information about what is not the case, we might think that whatever the relatum is, it isn't the kind of thing that we normally point to in ordinary positive causal statements. The negative information points to something special or unique about one or more of the relata of the corresponding causal relation (if indeed there is such a corresponding relation).

The central goal of this chapter is to consider whether, under the assumption that causal statements typically specify causal relations, there is any successful way to challenge the notion that negative causal statements have such implications regarding causation.² In the next two sections, we will briefly explore two strategies that challenge the assumption that the negative information of statements like (4) – (6) is ineliminable. After that, we will consider a view according to which causal statements like (4) – (6) do not specify specify causal relations. These strategies all seek to block the move from ineliminable negativity in causal statements to something special about one of the relata of the corresponding causal relation. Once we discuss these views, we will turn to a view on which we can avoid special metaphysical im-

²Of course, one can block such implications by denying that causal statements typically or ever specify causal relations. We shall set this strategy aside for the purposes of this chapter.

plications for negative causal statements by adopting the view that causation *always* relates facts, and not things like events.

After arguing that each of these strategies fails, I shall then discuss how absences as discussed in Chapter 2 can be utilized to provide suitable relata in negative causal relations. To be sure, in what follows, I intend to defend the claim that only in *some* cases does negativity in the language of causal explanations point to a special feature in causal relations.³ As well see, there are indeed cases in which the negativity in a causal statement doesn't require us to countenance anything special about the corresponding causal relation. In some cases, as will emerge, we could think of absence-talk as purely *explanatory*.

In the context of debates about whether to reify absences, then, we will see that negative causal statements provide something like a tentative reason for treating LTA's absences as genuine entities. If we think of negative causal statements as introducing a problem that needs to be addressed, and if, as I shall suggest, LTA's absences can be utilized to address such a problem, we have reason to reify them.

³One might alternatively want to say that in some cases absences *enable* events to occur without *causing* them to occur. It is a controversial matter, and one that I cannot adjudicate here, whether enabling is merely a type of causation or a different phenomenon altogether. See, for example, Mackie (1991) and Lewis (2000) for an account of enabling as causing, and Lombard (1990) and (1992) for an account which distinguishes enabling and causing as distinct phenomena. Thus, on one view, to say that an absence enables is simply a matter of saying that it causes a certain event, but only *distally*. Nevertheless, as I'll note, the move to enabling is ultimately of no help in this context, since problems structurally similar to those that plague the strategies discussed herein also affect the view that absences are enablers.

3.3 No metaphysical implications

3.3.1 Paraphrase by linguistic positivization

The first strategy utilized by one who might want to avoid metaphysical implications from negative causal statements is to maintain that we can successfully paraphrase statements like (4) – (6) while stripping away the negative information. Thus, these negative causal statements are really positive causal statements in disguise. If the causal statements that employ negative information specify any causal relations, they are simply of the same kind as those specified by positive causal statements. Thus, there need be no interesting metaphysical implications.

One type of paraphrase strategy could seek to remove negative information in causal statements simply by replacing linguistically negative expressions (in particular, expressions containing negations or negative prefixes) with linguistically positive expressions. As far as it goes, this strategy seems difficult to pull off in every case. For there are some cases in which it's difficult to find a *purely* positive linguistic expression that would replace a negative expression. For instance, consider statements (4) and (5). There certainly don't seem to be purely positive expressions in the offing that could successfully paraphrase the negative information contained in (4) or (5). It's difficult to think of a purely positive expression that could plausibly be offered up as a paraphrase for 'inattentiveness' or 'inoperative'.

If you think the mere difficulty of providing such linguistically positive paraphrases carries with it metaphysical implications, then given our assump-

tion that causal statements specify causes and effects, and that the relation of such statements cannot be the relation of ordinary causal relations, the failure of such paraphrase strategies establishes that we have to take such negative information seriously as pointing to a special sort of causal relation.

However, we shouldn't take the lack of purely positive paraphrases in this context to be particularly revelatory. It may just be an artifact of English (or any natural language, for that matter) that some of our linguistically negative expressions lack positive paraphrases. This linguistic observation should not in itself be taken to reveal one way or the other whether causal statements which feature linguistically negative expressions for which there is no positive paraphrase have certain special metaphysical implications when it comes to causation. Thus, whether or not we can offer linguistically positive paraphrases of negative causal statements by itself need have no metaphysical implications.

To help bring out the metaphysical *insignificance* of the lack of a linguistically positive expression to paraphrase negative causal statements like (4) and (5), consider another language that we might have used instead of English, call it NOT-English. The simple sentences of NOT-English stand in one to one correspondence with (and look just like) the negations of simple sentences of English. Thus, the simple sentences in NOT-English are all linguistically negative, sentences that are about what is not the case. (To make clear that the simple sentences of NOT-English are not complex, and that 'not' as it appears in the simple sentences of NOT-English is not the negation operator, we shall write the 'not' of simple sentences of NOT-English in all-caps.

The negation operator is available in NOT-English, but it is not a component of the simple sentences.) In NOT-English, to express what is the case, we use the negation operator. The negation operator takes the simple sentences of NOT-English and delivers more complex sentences. These more complex sentences look like English's double negations. But they aren't. They're single negations on NOT-English's simple sentences. For example, in English, the complex sentence

(E) It is not the case that it is not the case that it is raining.

is formulated by double-negating English's simple sentence "It is raining". In NOT-English, however the sentence

(NE) It is not the case that it is NOT the case that it is raining.

is formulated by (single-) negating NOT-English's simple sentence "It is NOT the case that it is raining".

In NOT-English, to speak of what is the case would require us to speak in a way that English speakers would when they use double negations. The language of NOT-English brings with it no available *purely linguistically positive expressions*. Nonetheless, it should be clear that were we to speak NOT-English, this would not by itself have any interesting metaphysical implications. Similarly, whether or not we can offer a purely positive paraphrase of linguistically negative expressions in some causal statements should not be

treated as terribly metaphysically interesting. It does, however, interestingly point to our tendency to accentuate the negative, so to speak.

Perhaps more pointedly, as will emerge in the next section, there are certain terms which, while linguistically positive, still serve to provide negative information, information about what is not the case. Such terms are ultimately negative in a deeper sense. As we'll see, in such cases negativity enters not at the level of language, but rather at the level of *concepts*. So even if we could provide a paraphrase of the relevant linguistically negative expression with a linguistically positive expression, this needn't remove the negative information contained in the original causal statement. As we'll see, the linguistically positive expression which replaces the linguistically negative term could, for instance, correspond with something that is *conceptually negative*.

3.3.2 Paraphrase by redescription

While one who wants to block the metaphysical implications of negative causal statements should not look to a paraphrase strategy along the lines explored above, there is another option available to him that seems more plausible. In this section, I shall examine this second strategy, and explore a class of concepts that I shall *conceptually negative*. I will take some time to characterize this class of concepts, as well as to differentiate them from other kinds of concepts. As will emerge, the discussion will have some important ramifications for when a certain concept should be considered conceptually negative. The paraphrase strategy under discussion in this section, as we'll see,

ultimately fails because it cannot successfully remove conceptual negativity from certain causal statements.

Let's now turn to this new paraphrase strategy. One might try to block the metaphysical implications of negative causal statements by redescribing such statements utilizing only positive information. According to this paraphrase strategy, negative information in causal statements only serves to describe something positive in a negative way.

As Varzi (2006) and (2007) points out, I can sometimes use negative information to describe something positive. For instance, instead of watering my flowers, I go to see a movie. On Varzi's account, to call what I did a 'not-watering' is just a negative way of describing what I in fact did. Indeed, sometimes we prefer the negative description of that event in some contexts. For instance, if I was asked to water my flowers, someone can more sharply accuse me of negligence by describing my movie-going as a not-watering.

So perhaps we can block the metaphysical implications of negative causal statements by maintaining that in every case in which negative information is employed, that negative information simply redescribes a positive event.⁴ In fact, I think that (4) above can be handled in this way. Just as I can describe my movie-going as a not-watering, I can also describe my talking

⁴As it happens, the positive story I eventually offer will in some ways look like it conforms to this overall strategy. However, the events that I use to serve as the relata of the relevant causal relations are not the garden variety events which Varzi mentions. They are built partly out of absences, and aspects of those absences. They are not the events to which Varzi here points.

on my cell phone as an event of not-being-attentive. (4) has no special metaphysical implications. It simply describes something positive, my talking on the cell phone, in a negative way.

This strategy doesn't work generally. The main problem, as Varzi (2007) notes, is that in some cases it isn't clear that we really have merely negative descriptions of positive things. Again consider a statement like

(6) The lack of rainfall caused the epidemic.

Varzi (2007) notes that it does not appear that there is any particular event being described negatively. This stands in stark contrast to the optimistic attitude of those like Armstrong, who are convinced that negative information is, in principle, eliminable from statements like (6). As he says:

Causal processes within a live human being deprived of water fairly quickly bring it about that that the person becomes dead. The latter condition is here negatively described, but it is nevertheless a positive physiological condition. (Armstrong 2004: 64)

I agree with Varzi that (6) provides problems for the paraphrase strategy currently under consideration.⁵ I disagree, however, with Varzi's diagnosis. It is important to take a moment to understand the exact source of the problem. It isn't, as Varzi thinks, that we can't point to something that

⁵For that matter, so does (5), and the case of death that Armstrong mentions, but we shall focus only on (6). Structurally similar things can be said for these other cases.

the negative information in (6) could possibly denote. We could, after all, reformulate (6) as:

(7) The drought caused the epidemic.

The term ‘drought’ is clearly *linguistically* positive, and it just as clearly points to a condition that we commonly take to occur in the actual world. We speak of droughts as lasting certain amounts of time (just as we take certain events, like baseball games, to last certain amounts of time), we take measures to mitigate the destructive effects of a drought (just as we take measures to mitigate the destructive effects of events like wars), and so on. So the problem isn’t that we don’t know what condition could be negatively described as a lack of rain. The answer to that question is rather easy. The condition is a drought. We can describe a drought negatively by using such negative language as ‘lack of rain’, or as ‘it’s not raining’.

The real problem for the paraphrase strategy is that the negativity in cases like that described in (6) runs deep. It is not eliminated in (7). The negative information reemerges from the very concept of a drought (and, *mutatis mutandis*, for the concept of being inoperative, or of death), and what it takes for us to truly be said to possess the concept. After all, how are we to explain what a drought is without invoking some negative information, information about what is not occurring? One can certainly explain and describe the *effects* of a drought, or the conditions under which a drought is likely to occur, without utilizing negative information. For instance, we know that

droughts can occur because sea-surface-temperature falls in a certain range, and we also know that droughts can cause insect infestations, epidemics, and the like. These are conditions *associated with* droughts, but to understand what a drought is, in order properly to be said to possess the concept of a drought, it seems you also have to possess the concept of a *lack* or *deficit* of water/rainfall.⁶

The concept DROUGHT, then, is an example of what I shall call a *conceptually negative* concept:

(CN): A concept *C* is conceptually negative if and only if possession of *C* requires possession of the concept of the *lack* of some condition *N*, where *N* is some *normal* or *natural kind* condition the concept of which is *prior to C*.

Statements like (6) and (7), which utilize conceptually negative information in a causal statement, provide trouble for the paraphrase strategy under consideration because there doesn't seem to be an easy way (or any way at all) in principle to successfully eliminate the negative information from the relevant causal statement.

We must be careful to delineate exactly the kinds of concepts to which (CN) points, for we don't want to confuse conceptually negative concepts

⁶The conditions which qualify as a drought are numerous. They include lack of rainfall, variations in atmospheric conditions that prevent condensation, lack of snowfall on nearby mountains, etc. As a simplifying assumption, I will simply speak of drought as the condition of a lack or deficit of rainfall.

with other kinds of concepts. After all, some concepts require possession of the lack of some condition, but do *not* thereby count as negative concepts, since possession of these concepts does not require that one concept is *prior* to the other. Sainsbury's discussion of so-called "boundaryless concepts" helps sharpen the picture:

Boundaryless concepts tend to come in *systems of contraries*: opposed pairs like child/adult...and the more complex systems exemplified by our colour terms...A grasp of *red* attains grasp of what is not red at a derivative level, via a grasp of *yellow, green, blue*, and so on. A system of such concepts is grasped as a whole, as can be seen in the way paradigms are used in learning...Not just any clear case of the non-applicability of a concept will serve to help a learner see what the concept excludes. Television sets, mountains and French horns are all absolutely definite cases of non-children; but only the contrast with *adult* will help the learner grasp what *child* excludes. So it is no accident that boundaryless concepts come in groups of contraries. (Sainsbury 1990: 258-9)

Possessing the concept CHILD, on Sainsbury's picture, seems to bring with it an understanding of what is not a child. A genuine grasp of CHILD seems to bring with it grasping in particular that CHILD excludes, and is a contrary of, ADULT. Another way of making this point is that in possessing the concept CHILD, one thereby possesses the concept NOT ADULT.

Nevertheless, the concept CHILD is not like the concept DROUGHT. The former is decidedly not a negative concept. Our definition (CN) happily

delivers this result. (CN) rules out CHILD as a negative concept, since CHILD and ADULT, like other boundaryless concepts, are grasped as a whole. Neither is conceptually or temporally prior; i.e., neither child nor adult is more fundamental, and one needn't (and doesn't, on Sainsbury's picture) possess one concept before being able to possess the other. (CN) requires that for a concept to count as genuinely negative, it must be defined in terms of some prior concept. So, for instance, possession of the concept DROUGHT requires either (a) that some other concept is temporally prior, i.e., that you must first possess the concept RAINFALL, or (b) that RAINFALL is conceptually prior in terms of DROUGHT's definiability in terms of (lack of) RAINFALL. The priority of the concept RAINFALL is easily brought by the fact that you cannot know what a drought is, and in particular what it is a lack of, until you possess the concept of the condition lacking. On the other hand, concept pairs like CHILD and ADULT, unlike those like DROUGHT and RAINFALL, don't require that one grasp one of the two concepts first or that one of the two concepts is more fundamental. The concepts come as a pair, with neither having a temporal or conceptual priority.

Similarly, Sainsbury notes, for color concepts. One gets the system of color concepts, on his picture, as a whole. For Sainsbury, in possessing RED, one also derivatively possesses the concept NOT RED, via grasp of the other color concepts in the schema. Once again, unlike concepts like DROUGHT and RAINFALL, none of these concepts enjoys a temporal or conceptual priority; one mustn't (and again, on Sainsbury's picture, doesn't) possess one

of the color concepts first, and come to possess the others partly in virtue of possessing the initial concept, nor is any one of the color concepts more fundamental than any other. Not so, as we've seen, for negative concepts.

Unfortunately, little has been done in the way of making explicit this division in our conceptual catalogue, or how to understand it. For instance, when Roy Sorensen (2008: 217) writes that ““Black” is a privational term in the same family as *dry* (absence of water), *sober* (absence of inebriation), and *healthy* (absence of disease)”, he *seems* to point to this family of conceptually negative concepts, but he fails adequately to distinguish them from the concepts that come in pairs.

Recognizing what makes conceptually negative concepts distinctive is important.⁷ For we might think that we could define any concept as the absence of its contrary, thereby blurring any distinction between conceptually negative concepts and the rest. However, we can be in principle wrong about which concepts are conceptually negative. In particular, we may simply be wrong in believing that one of a certain pair of concepts is fundamental, a concept in terms of which a contrary concept must be defined.

On this view, what determines which concepts are prior, more fundamental, and which are conceptually negative, is intimately related to what makes a particular concept a normal or natural kind concept. Second, and relatedly, what constitutes a normal, natural kind condition will depend on

⁷Thanks to Mark Sainsbury for pressing me for further clarity in the following.

what kind of world you live in, and in many cases, what kind of *environment* you live in within that world.

To further flesh out these claims consider a pair of concepts, CLEAR-HEADEDNESS and DELIRIUM. As we know, part of what contributes to a condition of delirium is lack of oxygen to the brain. At high altitudes (in particular, altitudes greater than 5000m above sea level), given lower barometric pressure, the number of oxygen molecules taken in per breath decreases. As a result, less oxygen gets to the lungs and brain. The result is a state of confusion. We treat delirium as a departure from a normal condition of clear-headedness.

Consider a world, call it D-Earth, in which our physiological constitution remains the same, yet at low altitudes, barometric pressure is the same as it is in our world at high altitudes. It seems reasonable to suggest that the *normal* state for us would be the state we call at our world ‘delirium’. The condition that is denoted at this world by our concept CLEAR-HEADEDNESS would actually constitute a departure or deviation from this normal condition, the condition denoted at this world by our concept DELIRIUM.

The upshot is that while at this world we treat DELIRIUM as conceptually negative, it seems right to say that at D-Earth our concept DELIRIUM would actually be the more fundamental concept, while CLEAR-HEADEDNESS would best be understood as LACK OF DELIRIUM. To spell this out a bit more, note that DELIRIUM at D-Earth would pick out a condition that is the normal condition, while CLEAR-HEADEDNESS would pick out a condition

that is a departure from this normal condition. CLEAR-HEADEDNESS, in picking out a condition that is a departure from a normal condition, would be conceived as a lack of that condition we refer to as delirium. So, at D-Earth, our concept CLEAR-HEADEDNESS would best be understood as conceptually negative. The condition of clear-headedness is a departure from, the lack of, the normal condition of delirium. Thus, which concept counts as conceptually negative is best understood as a function of the world/environment in which one lives, in combination with what counts as normal in the world/environment and what kinds of conditions carve nature at its joints.

Another way of putting this point is that at some worlds, it is reasonable to think that certain conditions that we think carve nature at the joints at this world actually fail to do so in other worlds. On Earth, the condition denoted by our concept CLEAR-HEADEDNESS carves nature at the joints, while that denoted by DELIRIUM simply marks a departure from the former condition. On D-Earth, however, the condition denoted by our concept CLEAR-HEADEDNESS is best understood not as a normal condition, but instead as a departure from the condition denoted by our concept DELIRIUM, which carves nature at the joints.

What implications do these observations have for the paraphrase strategy we've been discussing in this section? As has already been conceded, in some cases, the negative information serves simply to describe something positive in a negative way. In such cases, the negative information is in principle eliminable, and we needn't take such cases as having any particular meta-

physical implications. However, in other cases, namely those in which causal statements feature negativity at the conceptual level, the negativity will be ineliminable in principle from the causal statement. The negativity in these causal statements, as we've said, runs deep. We cannot avoid negativity in some causal statements, namely those where we cannot identify the negative information as pointing to something anything but a deviation or departure from some natural condition. So at least for a class of negative causal statements, such information will be ineliminable.

I think the paraphrase strategy ultimately fails for the reasons discussed above. Some have sought to criticize the paraphrase strategies above in an altogether different way. It is important to take a moment to see why these attempts fail, and why we cannot rely on them. John Haldane holds that attempts to eliminate negativity from causal statements fails because information is lost. He considers a reformulation of 'The plant died because it didn't get any water' as 'The plant died because dehydration occurred, metabolic processes were impeded, cellular integrity was lost, and cells were unable to be replaced, etc.':

It tells us that the death of the plant involved dehydration, but not what was the cause of this (or indeed that it had one), or why dehydration ultimately proved fatal. Assuming a non-saturated environment, plants lose water all the time (and cell breakdown is ongoing); but they do not die unless the lost water is not replaced...Additionally, these resultant effects include further priva-

tions such as failure of cell replacement. (Haldane 2007: 183)

Paraphrasing away the negative information often comes at the cost of *losing* information. So a paraphrase strategy that seeks to eliminate negative information entirely from negative causal statements in some cases must ultimately lose *some* of the relevant information contained in a negative causal statement.

In response, it might be said that while the non-negative statements fail to be informative, this only points to their inadequacy as causal *explanations*, not to an inadequacy as a description of the causal goings-on. For instance, consider again

(4) Your inattentiveness (your not paying attention) caused the accident.

If, as I've conceded, I am simply negatively describing what you actually did (talking on your cell phone), then it is true, given that causation is extensional, that what you actually did caused the accident. So in the case in which you're being inattentive because you're talking on your cell phone, the following is a true causal statement:

(8) Your talking on the cell phone caused the accident.

Granted, (8) may fail to adequately explain why the accident occurred. This, however, is simply a failure at the level of explanation, not at the level of *truth*.⁸

⁸Cf. Varzi (2006).

We shouldn't criticize a positive paraphrase of a negative causal statement simply for being uninformative. After all, a true positive paraphrase may be uninformative, but this just points to explanatory demands that outstrip the demands of speaking truly.

The context of causal explanation is important, however, for it provides another avenue for challenging the claim that ineliminable negative information in certain negative causal statements has metaphysical implications. We have been working under the assumption that *all* causal statements specify causes. It is time to set that assumption aside. For one could maintain that negative causal statements are special in that they don't specify causal relations. Rather, they serve merely to provide information about what does not figure in the causal history of a certain effect.

Unfortunately, this point has been largely overlooked. As such, those who want to establish that negative causal statements have metaphysical implications have treated the ineliminability of negativity from particular causal statements as itself establishing the case for such implications. John Haldane, for instance, thinks that the ineliminability of negative information from certain causal statements in itself at least forces the question of metaphysical implications for the causation relation. As he says:

If we suppose that the idea of causal explanation is prior to that of a cause, which derives from it, then we may say that there are as many categories of types of basic cause as there are categories

of types of basic causal explanation. Assuming that privative explanations are indeed basic, and that some at least are true, then there are privative causes. Even if the idea of cause is the prior one, however, the existence of true privative explanations may point to the existence of privative causality. Certainly it forces the question of whether there is such a thing. (Haldane 2007: 181)

In the context of our discussion above, we can ask a similar question. If causal statements always specify causal relations, then the existence of negative information in causal statements seems to suggest something special about the corresponding causal relation. Haldane, however, never considers whether causal statements of the sort we've been looking at *must* specify causes. He simply assumes that they do. In so assuming, Haldane ignores one influential conception of the nature of causal explanation. On one such account, negative information, even if ineliminable, does not serve to specify causes. Negative causal statements, on this account, should be treated simply as causal explanations which fail to specify causes.

It is this account of causal explanation to which we turn in the next section. If we can motivate this account of causal explanation, and show that it is the best way to understand the presence of negative information in statements like (5) and (6), then we will have shown that ineliminable negative information shouldn't be seen as having any interesting metaphysical implications.

3.3.3 Negative causal statements as causal explanations

The paraphrase strategy which seeks to eliminate negativity from causal statements like (5) and (6) fails. As we said above, if we accept that causal statements specify causes, and negative information is ineliminable from some causal statements, then it is reasonable to think that such negative information points to something special about the relata in the causal relations specified by the negative causal statements. In this section, we will briefly consider an alternative account that seeks to block the metaphysical implications of the negativity in statements like (5) and (6) by challenging the assumption that negative causal statements specify causal relations.

On this strategy, negative causal statements don't specify causes and effects. Rather, negative causal statements serve an entirely different purpose. Such causal statements serve not as specifications of causes, but rather solely as causal explanations. This strategy, championed by Beebe (2004) and Varzi (2007), is inspired by reflection on the fact that a certain statement can be a causal explanation without specifying causes or effects.

As Beebe (2004: 301-2) points out, following Davidson's (1967) distinction between causation and causal explanation, if negative causal statements are really just causal explanations, it's somewhat infelicitous and misleading for such statements to contain terms like 'cause'. We should replace such explicitly causal locutions with terms like 'because', terms that belong to the realm of explanation. So, for instance, if our negative causal statements (5) and (6) above are really just causal explanations, they should be reformulated

as:

(9) The explosion occurred *because* when the detonator was pressed the inhibiting shield (which normally blocks the triggering mechanism) became inoperative.

(10) The epidemic occurred *because* of lack of rain.

Beebee and Varzi's respective accounts whereby explanations like (9) and (10) fail to specify causal relations emerge from Lewis's (1986b) picture of causal explanation. According to Lewis, in giving causal explanations, we simply give information about an event's causal history. Different kinds of information become salient depending on the context. On this account, sometimes we can explain an event by offering negative information. In such cases, negative information doesn't cite or specify any causes. It instead merely provides information about what *isn't* in an event's causal history:

“Why was the CIA man there when His Excellency dropped dead? Just coincidence, believe it or not.” Here the information given is negative, to the effect that a certain sort of pattern of events – namely, a plot – does not figure in the causal history. (Lewis 1986b: 220)

As Beebee and Varzi have it, all ineliminably negative causal statements are causal explanations that fail to specify causal relations. This incredibly strong line is ultimately unmotivated. To see why, we have to take a closer look

at Lewis's information-giving account of causal explanation, and in particular, at when Lewis thinks it's plausible to say that an explanation genuinely fails to specify a cause.

When it comes to *positive* causal explanations, on Lewis's account, the only genuinely causal information that does not specify a cause is that which simply states not that a particular event is included in a causal history, but rather that a certain *kind* of event is included. For Lewis, only information in positive causal explanations that mentions *particular* events counts as specifying causes, since it is only particular events that serve as the relata of causal relations. As he puts it:

Most simply, an explainer might give information about the causal history of the explanandum by saying that a certain particular event is included therein. That is, he might specify one of the causes of the explanandum. Or he might specify several...Alternatively, he might trace a causal chain...An explainer might well be unable to specify fully any particular event in the history, but might be in a position to make existential statements. He might say, for instance, that the history includes an event of such-and-such kind. (Lewis 1986b: 219)

Notice here that Lewis's claim is not that causal explanations are never in the business of specifying causes. It is rather that those causal explanations that do not specify causes fail to do so because they fail to pick out *particular* events in the causal history of a certain effect. Interestingly, Beebe (2004:

302) seems to miss this rather subtle point in adapting Lewis's account. She suggests that since the following

(11) JFK died because of Oswald's shot.

is a causal explanation, it is thereby *not* a report of causation on Lewis's information-giving account. But since Lewis thinks that causal explanations that specify particular events in a causal history thereby report causal relations, it stands to reason that (11) is a report of causation. On Lewis's account, *contra* Beebee, causal explanations can specify causes.

Given Lewis's account, we should think similarly about *negative* information. Presumably, negative information doesn't fail to specify causes simply because it's a part of a causal explanation, just as positive information wouldn't so fail simply because it figured in a causal explanation. Negative information will only fail to specify causes on Lewis's account when that information can only be plausibly understood as marking what does *not* figure in an effect's causal history. So on the information-giving account, the *real* reason negative information would fail to specify a cause is that such information only makes a negative existential claim that an event of a certain kind does not figure in an effect's causal history.

It is here that this strategy for avoiding metaphysical implications of negative causal statements ultimately founders. For it is not clear, as Beebee and Varzi's respective accounts require, that all such negative causal statements are best understood as saying simply that events of such and such kind

did not figure in the event's causal history. At the very least, it hasn't been established that this is the *only* reasonable way to understand all such negative information as it figures in causal statements.⁹

For instance, neither (5) nor (6) are best understood as having this sort of structure. (5), it seems, does not *merely* report that the causal history of the explosion didn't contain an event of such and such kind (namely, something that has as a constituent an operative triggering shield). Rather, it seems most plausible (or, at least, just as plausible) to suggest that (5) reports that the explosion *did* have in its history an event that had as a constituent a *missing* or *inoperative* triggering shield. (6), on the other hand, also seems best read not as saying that the epidemic did not have in its causal history an event of such and such kind (one that has as a constituent rainfall). (6) suggests that a certain condition, namely that of a drought, *did* figure in the causal history of the epidemic. We tend to think that droughts figure in the causal histories of epidemics just as much as floods figure in the causal histories of the destruction of cities, and so, it stands to reason, (6) reflects such a thought in terms of a report of the ways in which conditions like drought figure in causal histories. Likewise, as this example from Haldane helps bear out even further, in many cases, we *do* seem to conceive of negative causal statements

⁹Note that if Beebe and Varzi were to allow that in certain cases, the negative information did correspond to causal statements, if they nevertheless seek to avoid special metaphysical implications or absences as causal relata, their view would appear to be a variant of that explored in the previous section, where the negative information simply points to ordinary positive events. As such, the view would be open to the criticisms explored in that section.

as genuinely specifying causes and effects:

Privatory causality may be sequential through *per accidens* series...: A caused B, B caused C, and so on...And sometimes we use privations to produce effects via other privations, as when I omit to wind the clock in order that it should fail to chime in order that the dog should not be woken – in order that the sound sensitive alarm should not be triggered, in order that the house should not be disturbed, in order that my guests awake in the morning refreshed by a good night's sleep. (Haldane 2007: 183)

Haldane's example is illustrative of the ways in which we take seriously the idea that negative causal statements specify ways in which particular privations are efficacious, and in particular, themselves can figure in the causal histories of certain episodes.

Moreover, it is interesting that while Lewis is the primary source of this information-giving account of causal explanation, even he is convinced that *at least in some cases*, negative information *can* specify causes. For instance, Lewis writes:

Absences can be causes, as when an absence of food causes hunger. Absences can be effects, as when a vaccination prevents one from catching a disease. And absences can be among the unactualized alterations of a cause or effect that figure in a pattern of influence...Absences are bogus entities. Yet the proposition that an

absence occurs is not bogus. It is a perfectly good negative existential proposition. (Lewis 2000: 100)

Given that certain causes and effects can be specified with a negative existential proposition, it should be clear that, as Lewis thinks, one can specify such a cause or effect with a negative existential proposition. Therefore, it is consistent with his information-giving account of causal explanation that in at least some cases, when a causal explanation contains negative information, that information specifies, or points toward, a cause or an effect.¹⁰

The information-giving account of explanation stands or falls with the plausibility of the claim that in every instance, negative causal statements explain only insofar as they make a claim to the effect that an event of such and such was not included in an events causal history. For the reasons just discussed, such a claim should be treated as implausible.

Apart from these worries about the letter of the information-giving account, there are more serious problems with its spirit, at least as it is used by Beebe and Varzi in the context of negative causal statements. As I now want to show, the primary motivation for this information-giving account stems from an impoverished conception of the realist's options for causation involving privations like omissions and preventions. The basic idea is that if we allowed negative causal statements to have metaphysical implications, such

¹⁰Of course, Lewis's claim that absences are bogus entities complicates matters. As we'll see shortly, it forces him to a rather inelegant position when it comes to the general analysis of causation.

implications would be abhorrent. If we allowed preventions and omissions to serve as causal relata, we would be allowing something metaphysically unacceptable into the causal story.¹¹ Moreover, given this conception of what such causation must be, the consensus is that the relevant entities would be unfit to serve as relata in a causal relation at all.

The relevant implication is that if omissions and preventions get into the causal story at all (as opposed to the merely explanatory story) they may only do so under the guise of the robust nonoccurrences, i.e., something like non-happenings or negative events. As Varzi has noted, in support of the causal explanation strategy for dealing with negative causal statements:

Had Johnny turned off the gas, as he was supposed to, things would have gone otherwise. It is therefore natural to say that because of his omission Johnny deserves to be punished. On the other hand, this is not to say that there is something Johnny didn't do and for which he deserves to be punished. Indeed, such a something would have to be a non-doing – a “negative act”, so to speak – and how could that be? Just as it is a contradiction in terms to say that there are things that are not (as Quine famously argued), it seems

¹¹Related things could be said in the context of treating absences as enablers. If we take the standard view of enabling as standing in a certain kind of relation (causal or otherwise) with an event, one might similarly worry that absences would be metaphysically unfit to serve as enablers. As we will see momentarily when discussing Lewis's account, allowing that absences are metaphysically bizarre and that they enable could ultimately force one to accept an inelegant view of the sort one seems to hold if they maintain that absences are metaphysically strange and that they cause.

a contradiction in terms to “count among the things an agent does things he does not do (as Davidson once put it). (Varzi 2007: 155)

What is clear is that omissions and preventions understood as robust nonoccurrences would be very strange kinds of entity. They seem to be mere nothings, not the kinds of thing that can enter into causal relations. I agree that causation involving prevention and omission simply cannot be a relation involving a nonoccurrence understood in this way.

The cost of accepting that there is causation by privation while at the same time understanding such causation as involving robust nonoccurrences becomes clear when we consider Lewis’s case. Lewis is happy to allow both that negative information sometimes specifies causes and effects, and that we should understand these causes as nonoccurrences of events. This ultimately drives him, however, to the view that causation is, in some cases, not a relation:

So I have to say that when an absence is a cause or an effect, there is strictly speaking nothing at all that is a cause or effect. Sometimes causation is not a relation, because a relation needs relata and sometimes the causal relata go missing. (Lewis 2000: 100)

For those who want there to be genuine causation by privation, such a move should be treated as a last resort. The primary worry with such a strategy

is that it is inelegant.¹² It ultimately treats causation as a disjunctive phenomenon, sometimes relational and sometimes not. If we can find a *unified* account of causation that can at the same time account for privations like omissions and preventions, such an account would enjoy a significant advantage over a disjunctive account along the lines that Lewis offers.

At this point, one might be convinced that we cannot avoid that (at least in some cases) negative causal statements specify causes. Yet, they could suggest, the problem is that we've conceived of the relata involved in causation in the wrong way all along. One might maintain that the real lesson the tangles of negative causal statements teach is that the relata specified by such statements (and indeed by all genuine causal statements) are not things like events, but rather things like facts. Negative causal statements are unique, they might say, in that they specify relations involving *negative facts*. I will explore the negative fact proposal in the next section, and argue that it either outright fails, or that it needs to appeal to the LTA absences of Chapter 2 to be carried out successfully.

3.4 Causation as linking facts

If the foregoing has been right, then there is no easy way to avoid the idea that at least some of our negative causal statements specify causes. As

¹²Such inelegance would also appear at the level of enabling, were we to treat absences as mere enablers. *Some* instances of enabling would be relational, while those involving absences would not. Why not treat all enabling as relational?

we have seen, if there are relata for such causal relations, then they cannot be the kinds of things that we normally take to stand in causal relations. Some negative causal statements do not merely describe ordinary positive things in a negative way.

Perhaps the real lesson is that we ought to think of causation as relating things other than events. Perhaps, that is, we should treat the relata of the troublesome negative causal statements as negative facts. This is not, however, to say that there is anything particularly *special* about the relata of causal relations being facts *per se*. On this account, causation *in general* is not a relation between particulars like events. Rather, causation is best understood as linking facts. In normal positive causation, causation links two positive facts, facts about what it is the case. Alternatively, when we have a causal statement like (3) or (4), the negative information serves simply to specify a negative fact – a fact that something or other is not the case.

What exactly are facts? There are two different stories to be told, corresponding to two ways of understanding what kinds of entities facts might be. Neither of these ways will provide a sufficiently satisfactory account.

One way of understanding facts is as Armstrong's (1997) structured complexes of particulars and universals, things he labels 'states of affairs'. One advantage of understanding facts in this way is that it makes facts worldly entities. This is appealing in that we commonly think of causation as a relation between things in the world. However, the primary problem is that one will have a tough time spelling out what negative facts are supposed to be on this

picture. It is unclear what worldly entity could supply the relevant negativity of the negative fact. For instance, take the negative fact that the United States does not have a king. What could that fact be composed of? As Boris Kukso has pointed out, it seems there are three primary options for one who takes facts to be Armstrongian worldly entities:

According to (1) the negative universal view, a negative [fact] consists of a particular that instantiates a negative universal. According to (2) the negative element view, a negative [fact] contains as many constituents as the corresponding positive [fact] plus a negative element. Finally, according to (3) the negative form view, a negative [fact] consists of exactly the same constituents as the corresponding positive [fact], but the universal and particular are combined in a different way. (Kukso 2006: 29)

The central problem is that, unfortunately, on an Armstrongian conception of negative facts, the only clear way to build such facts is by incorporating an element that is fundamentally negative in a metaphysical sense. As we've already seen in Chapter 2, negative entities test the limits of comprehension. Moreover, it is this very point that has driven some as far as rejecting the very idea that there are any genuine negative facts. As Cheyne and Pidgen nicely put the point:

But negative facts are mysterious and metaphysically weird entities. This includes so-called totality or limiting facts of the 'there-are-no-more-facts' variety. Positing their existence is to be avoided

if at all possible. According to Russell, “there is implanted in the human breast an almost unquenchable desire to find some way of avoiding the admission that negative facts are as ultimate as those that are positive”. And whether or not this is true of human breasts generally, it is certainly true of ours. (Cheyne and Pidgen 2006: 251)

Another way to understand facts is simply as true propositions. Mellor (1995) and (2004) is the central proponent of such a strategy. According to Mellor, the primary advantage of such an account is that it allows us to account for causal statements in which negative information is employed. For Mellor, in a standard case of causation, two facts are related. In a case where a spark causes a fire, the relevant facts are that there was a spark and that there was a fire. Such facts are canonically related by the connective ‘because’ in a statement of the form ‘E because C’. The relevant causal truth for Mellor, then, is: ‘There was a fire because there was a spark’. In standard cases of causation, there is also a true statement of the form ‘c causes e’ about particulars (like events) that corresponds to the statement linking facts. In the case where the spark causes a fire, we can say that the spark caused the fire, and this statement corresponds to the factive statement ‘There was a spark because there was a fire’. Nonetheless, the fundamental notion in the realm of causation is not one that relates particulars like events; rather, it is one that links facts.

The way in which Mellor’s account deals with such negative informa-

tion has important ramifications for his account of causation. For Mellor, a *negative* fact is simply a true negative existential proposition. Importantly, the relevant propositions do not correspond to anything in reality. This has one extremely important implication for Mellor's account of causation: it turns out *fundamentally* to be non-relational phenomenon.

Some think that it is just intuitive that causation is a relation between actual events. Thus Schaffer (2005: 300), in criticizing the view that causation relates Mellorian facts, notes that such a view "assign[s] spooky powers to...abstracta". I don't think we should make such appeals. It is questionable that intuition delivers any particular strong verdicts about what it must be that causation connects. Moreover, even those most dedicated to the idea that causation does not relate facts, like Lewis (2000), in order to account for causation in causal statements containing negative information, end up with a story significantly like Mellor's by rejecting the assumption that causation is relational in some form.

The real intuitive trouble when it comes to Mellor's account of causation is not that it makes causation non-relational, but that it fundamentally takes it out of the world. It violates the notion, discussed in Chapter 2, that causation is in some way grounded in the concrete world. Mellor can of course try to assuage those who want causation in the world by claiming that factive statements *correspond* to particulars (and relations among them), thereby linking the facts with the world. This doesn't help in general, however, for it is this very feature that goes missing in the case of causation by omission and

prevention. Causation is (in a sense) in the world except in those cases where the causal statements contain negative information.

Mellor's account, like Lewis's, is inelegant.¹³ It allows causation to get in the world via correspondence with particulars, but only in *some* cases. It is important to see exactly why he thinks this, for it reveals a poor conception of what omissions and preventions must amount to, much like that underlying the Beebe-Lewis-Varzi strategy. Mellor thinks that negative facts cannot correspond to anything in the world because of his understanding of what they would correspond to if they did so correspond. According to Mellor, the only relevant entity to which the negative information could correspond is what he calls a negative event. These negative events, just like nonoccurrences, would be very bizarre. As Mellor says:

What particulars does causation relate when there *not* being a spark causes there *not* to be a fire? They cannot be negative ones – a *nonspark* and a *nonfire* – as there are demonstrably no such entities. For suppose there is a *long* spark and a *hot* fire: This entails that there is a spark and a fire, since something that is both a spark and long must be a spark, just as something that is both a fire and hot must be a fire. But with negative particulars, the entailments go the other way: If there is *no* spark, it follows

¹³As in Lewis's account, treating absences as mere enablers would be of no help. The inelegance would be present even if we treated absences as enablers as opposed to causes. Only in some cases would enabling be grounded in the world through correspondence with particulars.

that there is no long spark, and no short one either. But this cannot be because a nonspark exists and is both long and short, since nothing can be that; any more than a nonfire can be (as it would have to be) both hot and cold, to make its existence entail (as it would have to) that of both a hot nonfire and a cold nonfire. (Mellor 2004: 314-5)

I couldn't agree more. Such entities would be metaphysically unacceptable to serve as *relata*. They aren't, however, the *only* candidates. As we will now see, the options outstrip those provided by Mellor's picture. Here LTA's absences become crucially important, and here LTA's absences ultimately do some much needed work in the realm of causation.

3.5 LTA's absences and the metaphysical implications of negative causal statements

As we've seen in Chapter 2, LTA's absences are intimately related to spacetime complements. I shall now discuss the way in which this feature of LTA can provide *relata* to serve in causal relations specified by negative causal statements. To simplify matters, and to keep the picture naturalistically acceptable, I will for the purposes of this section only be discussing the version of LTA on which absences are to be *identified* with spacetime complements.¹⁴

¹⁴As I have already noted, a defender of the view on which absences stand in the constitution to spacetime complements will need to fill in the details of their particular metaphysical picture.

The standard conception of causation holds that it is a relation between events. On this picture, in order for absences to get involved in causal relations in the right way, they must be the kinds of things that could serve as constituents of events. Luckily, absences as charted by LTA have no problem serving as such. To see why, consider the standard conception of events. Events are standardly thought of as property exemplifications by objects at times. That is, they are typically thought of as ordered triples consisting of objects, properties, and times.¹⁵ Since absences are spacetime regions (or constituted by them), and thus qualify as objects, they are certainly the kinds of thing that could serve as the constituents of an event.

How might we think of a case of negative causation utilizing the LTA picture of absences? Consider a negative causal statement that we have discussed already:

(6) The lack of rainfall caused the epidemic.

According to this negative causal statement, the lack or absence of a certain feature – namely, rainfall – caused an epidemic. Of course, a statement like (6) is best taken as elliptical. It leaves out certain information about the epidemic and its causal origins. The epidemic described occurred at a certain place, and at a certain time. Its occurring at that place and at that time was the

¹⁵There are the familiar disputes between about how finely events are to be individuated (with Davidson and Kim serving as the primary opponents), but these debates are irrelevant for our purposes.

result of a deficiency in rainfall, which itself was a deficiency from a particular place at a particular time. Filling in these details affords a clearer picture of the relevant relata in the causal relation. The effect – the epidemic – will be an event that involves a portion of reality instantiating a property like *being an epidemic* (which will itself presumably have some further analysis) over an expanse of time. LTA helps to provide the cause. The causally relevant absence of rainfall from the region can be generated by LTA by taking the intersection of the region of interest and the absence of rainfall (which is in turn the intersection of all the complements of rainfall events). The event causally responsible for the drought will thus be constituted by that portion of spacetime’s instantiating the property of being an absence of rainfall over the relevant period of time. Thus, LTA provides the event that serves as the cause in the negative causal statement.

One advantage of this account is that we can preserve the sense in which there is *something* novel and unique about causation as specified by negative causal statements. For one, LTA’s absences aren’t the kinds of constituents that we *normally* think of when we think of events. Moreover, they get involved in causation *qua* absences *only* when causation involves deficiencies, lacks, and the like, the kinds of things that feature in negative causal statements.

Yet, at the same time, this account retains naturalistic respectability. As we’ve already discussed in Chapter 2, LTA’s absences (on the identity version of the theory) are the kinds of thing we already have good reason to accept. Thus, the events as specified by negative causal statements are

constituted by objects with a respectable pedigree. The same can be said for the properties by which such events are constituted. As we saw in Chapter 2, a property like that of *being an absence of rainfall* is to be analyzed in fairly humble terms. All there is to being the absence of rainfall is being a certain kind of spacetime complement, which is simply a matter of standing in the complement relation to events of rainfall.

Of course, there are other conceptions of the relata of causation. None of these other conceptions of causation would make causation problematic for an LTA account. For instance, were one to treat the relata of causation as object-like states of affairs (as Armstrong (1997) does), we could simply build states of affairs out of absences. The causally efficacious state of affairs relevant to the case described above would be that of a particular portion of spacetime's instantiating the property of being an absence of rainfall (which in turn gets a naturalistically acceptable analysis in terms of the complement relation). Were we to treat the relata of causation as properties, or property instances, or tropes, we could look simply to the property of *being an absence of rainfall* or *being an absence of rainfall from this region*.

Moreover, if we think of causation as involving facts in the way Mellor does above, we could appeal to the events built out of LTA's absences (or perhaps instead the relevant properties) to correspond to the negative Mellorian facts. Doing so would pay service to the grounded causation intuition discussed in Chapter 2, on which causation at least *somehow* involves the world. LTA's absence can ultimately be seen aiding Mellor's account by providing the

ontological grounds in reality for causation, thereby removing the inelegance from his overall picture of causation.

3.6 Conclusion

I have argued that the metaphysical implications of negative causal statements are extremely difficult to avoid. However, I have also explored why we shouldn't take such metaphysical implications as problematic. As I have suggested, the metaphysical consequences of negative causal statements needn't be seen as abhorrent, or as requiring metaphysically bizarre entities. LTA's absences do a good deal of the causal work while retaining a naturalistically acceptable profile.

Moreover, LTA's absences prove helpful even for accounts that do not treat causation as fundamentally relational. Mellor takes the real lesson of negative causal statements to be that causation is not a relation between events. Even if Mellor refuses to budge on this point, he still can use LTA's absences for the sake of his own account. LTA's absences serve to make Mellor's account more elegant, and provide an ontological basis for the facts that he finds essential to a proper account of causation.

Ultimately, then, the context of causation seems to make LTA's absences extraordinarily attractive in one's overall ontology. Without them, it is hard to see how to deal with the metaphysical implications of negative causal statements in a way that is both metaphysically unmysterious and at the same time reflective of the nature of negative causal statements themselves.

Chapter 4

Perceiving Absences

4.1 Introduction

When philosophers consider veridical perception, they are most commonly focused on our sensory relationship with ordinary objects: tables, chairs, relations among such objects and the properties instantiated by them. Likewise, when the topic turns to the metaphysical nature of the objects of perception, the central concern is with ordinary entities.

Every once in a while, though, attention turns to a seemingly more exotic kind of veridical perception: the perception not of ordinary entities, but of the absences of such things. Yet when one examines the various discussions of experiences that fall under the broad rubric of perceiving absence, one notices a couple of interesting trends. First, different philosophers have focused on different kinds of experiences. Second, philosophers who discuss perception of absences often rush to introduce a novel entity – an absence – to serve as the object of perception without taking care to consider whether the relevant experiences actually require such an ontological addition.

Given these failures, the literature on perceiving absences has suffered. First, there has been no thorough investigation into the variety of experiences

that have been counted, or could be counted, as perceptions of absence. As a result, there has been no unified study of the nature of perceiving absences. What are the similarities among the varieties of experiences that are discussed as instances of perceiving absences? Are all such experiences ultimately of the same kind, or are there interesting differences among them? Second, in trotting out novel entities to serve as perceived absences, philosophers often treat the relevant experiences as obviously bolstering the case in favor of reifying absences as novel entities. In doing so, they take perception of absences as akin to perceiving ordinary objects like tables and chairs. Seeing an absence, on their account, simply must be like seeing a tree or a person. As a result, the idea seems to be that if one is aware of an absence, there must be some novel object – the absence – of which one is aware.

These problems have also complicated and diminished our understanding of experiences of absence. The most detailed discussions of perception of absence come from those who maintain that we need novel entities to serve as objects of perception. The entities proffered either typically have a bizarre or mysterious metaphysical profile, or no account of their nature is given at all. As a result, philosophers have ignored or looked askance at discussions of the relevant experiences. Such avoidance of this topic is understandable. If the experiences require *those* kinds of entity, then perhaps we should simply deny that there are any such experiences. The result is that an entire class of putative experiences remains largely unexplored, perhaps due to the ontological profligacy of those who have sought to discuss them.

This chapter corrects these shortcomings in the literature. In what follows, I shall first canvas the various kinds of experiences that have been (or could be) offered as cases of perceiving absences. Second, I shall show that perceiving absences is in most cases a rather familiar kind of perception, and moreover, one that does not require the introduction of any novel entities to serve as the objects of perception. The most important result of the study is a natural, sensible account of a kind of perceptual experience that has been largely swept under the rug. Experiences of absence deserve as central a place in our attempts to characterize and understand veridical perception as ordinary perceptual experiences. This study provides such experiences the account that has heretofore been missing.

Methodologically, the case presented herein amounts to an argument against an argument for reifying. However, the considerations raised against reification are not, and need not be seen as, driven by any general commitment to a principle of parsimony. One need not have a preference for Quinean desert landscapes to appreciate that the relevant experiences fail to establish the case for reifying absences. One needs only to recognize that the experiences of absence discussed do not, as some have assumed, present any conclusive argument in favor of reification. As will emerge, there are various tempting yet misleading reasons that philosophers have concluded that novel entities are required as objects of perception. First, philosophers are often seduced by the language with which we describe the relevant experiences. Since such experiences are described as perceiving the absence of some entity or another,

it is tempting to think that such experiences should be treated as on a par with perceiving ordinary objects such as tables and chairs. The use of the nominal phrase, however, is frequently misleading. Just because we say that we perceive the absence of a certain entity does not in itself mean that there is some novel entity – the absence – that we are perceiving. Rather, I shall show, in many such cases to say that one perceives the absence of some entity is more akin to saying that one sees the point of an argument. The experiences themselves do not make the case for reification. In other cases, I shall suggest what we see is a somewhat surprising entity, but we nevertheless need not inflate our ontology by introducing any novel or *sui generis* objects. In other cases, it is simply wrong to say that we actually see anything.

4.2 Distinctions that will make a difference

Before examining the various putative cases of perceiving absences, it will be useful first to highlight some distinctions that will emerge as crucial to the analysis of such cases. There are two general kinds of distinctions to be drawn. The first, familiar from Chapter 2, is between two ways of characterizing statements of the form ‘the absence of x’. The second is between two general kinds of perceiving.

Recall the two broad concepts of absences discussed in Chapter 2. One way of homing in on the notion of absence involves negative existential claims. If I say that there is an absence of oxygen in the room, I may also affirm a negative existential to the effect that there is no oxygen in the room. In saying

that there is an absence, I could be construed as simply making a claim to the effect that something doesn't exist. On another way of characterizing the notion of absence, instead of making a negative existential claim, one could instead be positing the existence of something such that it is an absence. On this construal, positing the absence of oxygen is tantamount to saying that there *is* something such that it is a lack of oxygen.

As we noted in Chapter 2, these two concepts of absence track a distinction between two ways that negation can take scope over an existential claim. On the one hand, there is wide scope negation ($\neg\exists xFx$), which denies the existence of a particular sort of thing. On the other, narrow scope negation ($\exists x\neg Fx$) denies not that some thing exists, but rather that some thing has a certain property. In considering the varieties of experiences of absence, it will be important to consider whether the experiences are best thought of as instances of awareness of entities or instead as awareness of certain kinds of negative existential claims.

Now for a distinction at the level of perception in general. Dretske (1969) famously distinguishes between epistemic and non-epistemic perception. For example, Dretske takes non-epistemic seeing to be basic visual perception. One can non-epistemically see a red apple without deploying concepts like "red" or "apple". Epistemic seeing is a more conceptual affair. Epistemic seeing is a matter of seeing *that* something is the case. For Dretske, seeing that something is the case requires the deployment of concepts. Though one can non-epistemically see a red apple without deploying the concepts "red" or

“apple”, one must deploy such concepts (or at least related concepts) in order to epistemically see *that* the apple is red.

These two distinctions dovetail in an interesting way. For if perceptual awareness of absence is best characterized as awareness of a certain negative existential as opposed to an entity, then we should treat perception of absence as a variety of epistemic awareness. Similarly, if the description of the experiences of absence suggests a form of epistemic awareness, this suggests that we should treat the absences of which we are aware in experience as negative existentials. Ultimately, what I shall show is that in very many cases of perceiving absence, this is just the way such experiences should be treated. Other cases of perceiving absence, I shall argue, are not suitably described as awareness of negative existentials. As such, they are not best described as instances of epistemic awareness. Nevertheless, even in these cases, we can provide a suitable object of non-epistemic awareness without reifying some novel entity.

4.3 Sartrean experiences

When I meet my friend in a crowded cafe, I can find him by seeing him. Sometimes, however, my friend is not so friendly. Sometimes my friend does not show up on time. When that happens, I can usually look around the cafe and discover that my friend is not there. In such a scenario, what is it that I see? I certainly see the cafe, and the patrons therein. But do I see anything else?

Some philosophers have been tempted to claim that in such circum-

stances, I also see a novel kind of entity – the *absence* of my friend. Sartre is perhaps the most famous proponent of this claim:

But now Pierre is not here. This does not mean that I discover his absence in some precise spot in the establishment. In fact Pierre is absent from the whole cafe; his absence fixes the cafe in its evanescence; the face remains ground; it persists in offering itself as an undifferentiated totality to my only marginal attention; it slips into the background; it pursues its nihilation. Only it makes itself ground for a determined figure; it carries the figure everywhere in front of it, presents the figure everywhere to me. This figure which slips constantly between my look and the solid, real objects of the cafe is precisely a perpetual disappearance; it is Pierre raising himself as a nothingness on the ground of the nihilation of the cafe. So that what is offered to intuition is a flickering of nothingness; it is nothingness of the ground, the nihilation which summons and demands the appearance of the figure – the nothingness which slips as a *nothing* to the surface for the ground. It serves as foundation for the judgment – “Pierre is not here.” (Sartre 1969: 42)

Sartre maintains that the absence of my friend is a sort of figure set against the background of the cafe, just as a patron in the foreground of my field of vision could serve as a figure against the background of the cafe.

Richard Taylor (1952) offers a much less lavish picture of a similar phenomenon. Picture two circles, one with a dot in its center, and one empty. According to Taylor, when looking at the circle with the dot in its center,

one directly and immediately perceives the presence of a dot within the circle. Taylor maintains that the situation is the same when one looks at the circle that is empty of dots. One perceives that the circle is empty. Moreover, Taylor notes that if we are looking for dots, we can see that the circle is empty of dots. Taylor takes this as evidence that we see a novel kind of concrete entity. Some are tempted, like Sartre, to describe such an entity in terms of the language of absence. Boris Kukso (2006: 30-31), for example, takes Taylor to be making a clear-cut case in which we perceive absences.

C.B. Martin has also stressed the ways in which the absences of entities figure in perception:

Lewis wishes to keep his eye upon the doughnut and not upon the hole, but absences *are* perceived. We look very carefully to make sure of the absence of Mary in the room before nominating Gertrude. We are not looking for pure nothingness. We are looking for the absence from the room of Mary. The blind feel for the *absence* of solid impediment to their progress. The sensation of their hand or limb passing through the space that is empty of such impediment is the desired perception of absence or emptiness in a perfectly straightforward way. (Martin 1996: 64)

The experiences just discussed involve a perceiver's current perceptual relationship with his environment. However, one can also find such experiences as familiar to recollection or episodic memory. After attending a party, I can

become aware that a certain friend of mine did not come along. I can in such a case be said to be struck by the absence of my friend from the party.

Since Sartre first popularized discussion of these experiences, let's label them 'Sartrean experiences'. One interesting characteristic of Sartrean experiences, as Sorensen (2004) has noted, is that they are typically facilitated by a certain kind of psychological priming. In Sartre's case, his friend was not the only person absent from the cafe. So too (we may suppose) was Bertrand Russell. Yet the experience Sartre enjoys is specific, it is directed toward his absent friend. Sartre claims that he is aware only of his *friend's* absence on the basis of his experience, not also of the absences of Russell, or flying cars, or dinosaurs. There is a straightforward explanation of this: Sartre's looking for his friend enables him to have the relevant kind of experience. Such considerations play a large part in Taylor and Martin's cases as well. There are lots of things that are absent from Taylor's empty circle. Taylor notes that it is only when we are actually looking for dots in the empty circle that we can see the absence of dots. In Martin's case, we are aware of the absences of things that we are primed for: we want to ensure that a specific person is not in the room, or that impediments do not block our path.

Though I can speak as though I perceive the absence of my friend, or of dots, or of impediments, such cases can just as naturally be couched in less extravagant terms. For all of the talk of nothingness and nihilation, the phenomenon Sartre discusses is a rather familiar one: seeing *that* someone is not present. Likewise for the examples that Taylor and Martin discuss. Seeing

a dot empty of circles enables us to notice *that* it does not have any dots in it. Feeling our way through an unobstructed path, we are thereby able to judge *that* it does not contain any impediments.

Putting things in this way is important. In seeing, for example, that my friend is not in the cafe, I do not also have to perceive some entity that is the absence of my friend. I simply have to enjoy an experience that enables me to judge that my friend is not there. Likewise for Taylor and Martin's cases. To see that a circle is empty of dots in no way *requires* that I perceive some entity that is the absence of dots from the circle. For a blind person to sense that there is no impediment to his path does not require that he thereby perceives some special entity that is the absence of an impediment. The fact that each such case can be accurately and informatively described as a case of "seeing-that" reveals why these cases of perceiving absence do not themselves require positing the existence of unique entities. Since we here have a case of seeing-that, it becomes clear that we should think of perception of absences in terms of our awareness regarding negative existential propositions. Sartrean experiences are thus best understood as cases in which one can see that something or other is not the case. Ultimately, then, Sartrean experiences should be treated as cases of *epistemic* seeing.¹

¹George Molnar (2000: 79-80) very briefly sketches a suggestion much like this in the context of Taylor's case of perceiving a circle empty of dots, where perceiving the circle's being empty of dots emerges from inferring *that* it is empty of dots. However, Molnar's account fails to explain two things. First, it does not show *how* it provides the resources for denying that absences serve as novel, *sui generis* objects of perception. For instance, Kukso (2006: 28-9) takes Molnar to have simply established that all perception of absences

In very many cases, we can say truly that a subject perceives the F without there being some novel entity – the F – which the subject perceives. Take, for example, a case where a subject can be said to see the difference between two photographs. Seeing the difference does not require that we reify some novel entity – a difference – to serve as the object of perception. Rather, it simply requires that the subject is aware *that* there is a difference. When it comes to Sartrean experiences, ‘perceiving the absence’ should receive a treatment similar to ‘seeing the difference’. The situation is familiar. Philosophers have been tempted to think that ‘seeing the absence’ should be treated on a par with ‘seeing the tree’ in part because of a misleading and ontologically pregnant use of the nominal. Language has long been known to be bewitching in just this way:

Our teachers used to warn us, rather too often and rather too stridently, not to be bewitched by language. They told us, in particular, to beware of ‘pseudo-reference’: not to be taken in by phrases that superficially resemble referring terms, but that actually play some quite different role in the game of language. (Lewis 1998: 216)

However, to note that such perception of absences is a matter of epistemic seeing does not go very far in explaining how we pull it off. Indeed,

is dependent on expectation, not that absences are not novel items of awareness. Second, Molnar does not explain in any detail how what one perceives enables one to infer what is not the case.

one might think it is somewhat puzzling. How can we see that someone is not in the cafe merely by looking at the cafe, if we does not also see something that somehow constitutes the absence of that person? Another feature of non-epistemic seeing helps explain why. Typically, when one epistemically sees that something is the case, one also non-epistemically sees the entities that the fact is about. Usually I (epistemically) see that the apple is red by (non-epistemically) seeing the apple and its redness. However, one need not always see the entities the fact is about. I know that a certain vintage of wine is unusually sweet, having tasted it before. When I am handed a wine label that has been freshly peeled from a bottle of that vintage of wine, I am in a position to know something about the wine in the bottle. Looking at the label, I can see that the wine in the bottle from which it was peeled is sweet.²

This is essentially an example of what Dretske (1997) calls “displaced perception”. In displaced perception, one can see (or otherwise perceive) that something is the case by looking at (or otherwise perceiving) something else. I can see that my gas tank is empty by looking at my gas gauge. I can hear that the postman has arrived by hearing my dog bark. Displaced perception puts me in a position to learn many facts about things that aren’t non-epistemically perceived. When I look at the gas gauge, I don’t non-epistemically see the gas tank or its contents. When my dog barks, I hear it, and not the postman. As Dretske (1997: 42) puts it, displaced perception “enlarges the number of facts one perceives without a corresponding enlargement in the number of objects

²Cf. Dretske (1999: 106).

one perceives.”

How one gets from what one non-epistemically perceives to what one epistemically perceives is an important issue. Dretske (1997) maintains that there are “connecting beliefs” that take one from what is epistemically seen to what one non-epistemically perceives. In such a case, one infers what is epistemically perceived from what is non-epistemically perceived. I see the gas gauge, and I infer that the gas tank is empty.

One might balk at the claim that displaced perception only occurs via inference. After all, in many cases it simply does not seem that one is actually performing an inference.³ Once one has mastered the connection between gas gauges and what they register, one doesn’t *seem* to engage in any kind of inference, even if in learning how gas gauges work one has to consciously infer the amount of gas in the tank while looking at the gauge. Upon mastery, one simply looks at the gas gauge, and immediately sees that the tank is full. The deliverances of displaced perception arrive with an immediacy that typical inferentially acquired beliefs do not have. Put another way, such cases of displaced perception are wholly unaccompanied by inferential phenomenology.

One could maintain that in such cases, inferences were being performed at a subpersonal level, and thus unavailable to consciousness. This could explain why certain cases of displaced perception seem phenomenologically non-inferential yet nonetheless remain the products of a kind of inference.

³For Dretske (1997) introspection is just such a case of non-inferential displaced perception.

Alternatively, however, one might suggest that the immediacy with which one can arrive at some of the deliverances of displaced perception points to the process being (in some cases) wholly non-inferential. In mastering the connections between how the gas gauge reads and what that signifies with regards to the contents of the tank, we could suggest that our judgments about the contents of the tank cease to be a matter of inference. Some cases of displaced perception, then, may turn out to be automatic. Having mastered the connection between gas gauges and gas tank, perhaps in seeing the gas gauge we thereby automatically see that the tank is empty without the aid of inference.

No matter what the mechanism, inferential or not, it is reasonable to think that perceiving absences is a case of displaced perception. Indeed, Sartrean experiences can be informatively and naturally modeled in such terms. Perception of absence is a case where what one non-epistemically perceives allows him to epistemically perceive what is *not* the case. This is not terribly mysterious. What we perceive can often inform us about what is not the case. If there are 12 books on the table, I can see by looking that there are not 13 books on the table. If I am wearing a blue shirt, I can see by looking that I am not wearing a red shirt. Obviously, unless I am psychologically primed, I don't make the relevant connection between what I non-epistemically see and what I am capable of epistemically seeing regarding what is not the case. Unless I am primed to focus on the number of books in the table, I typically do not see by looking that there are not 13 books on the table. Here psycho-

logical priming becomes crucial in explaining how I am able to see that my friend is not in the cafe on the basis of what I actually do (non-epistemically) see. Priming constitutes the rails by which I am able to move from what I non-epistemically see to what I epistemically see. My friend is not in my office as I type, but I don't expect him to be there. As a result, I am not struck by his not being there in the same way that I would be in Sartre's case. In that case, I am primed to see my friend, and as a result, I anticipate my experience as including him. By seeing the cafe, and failing to see him, I am able to see that he is not in the cafe.

Like many cases of displaced perception, Sartrean experiences don't typically come with any sort of inferential phenomenology. One simply looks at the scene and (often immediately) thereby sees that some entity is not there. As just discussed, it is up for debate exactly how the mechanism of displaced perception works, and by extension, one could offer various theories of how it works in Sartrean experiences. It could be that one immediately, non-inferentially sees that someone is absent as a result of seeing other things like the tables and chairs in a cafe. Being primed in the right way, what I see might immediately enable me to see what is not the case. Looking for my friend, I could be in a position to immediately judge that he is not present on the basis of what I actually see.

Alternatively, there could be connecting beliefs guiding one's ability to judge what is not the case. To flesh things out, as a representative example of how displaced perception guided by connecting beliefs might work, consider

Sartre's case of perceiving the absence of a friend from cafe. How am I able to see that my friend is not in the cafe on the basis of looking around the cafe? When I expect to see my friend in the cafe, I anticipate my experience upon scanning the cafe to have a certain kind of contour. In particular, I expect it to include my friend. When I do not see my friend, my experience lacks that contour. Ultimately, on the basis of my experience, I am able to form a belief about it: namely, that it does not include my friend as part. Since I believe that were my friend there, I would see him, I am as a result able to conclude that my friend is not in the cafe. On the basis of my experience, and on the basis of my ability to recognize that my experience does not match the contours I anticipate, I am thereby able able to *see that* my friend is not in the cafe. My beliefs about how my experience would be were my friend in the cafe thus serve as connecting beliefs between what I non-epistemically see and what I am thereby enabled to epistemically see. Just as a belief that my dog's bark reliably indicates the arrival of the postman enables me to hear that the postman has arrived, my beliefs about what my experience would be like were my friend there enable me, in the face of the contrast with what I actually experience, to see that my friend is not in the cafe.⁴

While Sartrean experiences might tempt one to reify novel absences as the objects of perception, we can generate a sensible account of such experiences using modest resources. Sartrean experiences seem naturally described

⁴Such beliefs are of course defeasible, as are all such non-introspective connecting beliefs for Dretske. My friend might be camouflaged in the cafe such that I couldn't see him even though he was there, in which case my connecting belief would be false.

as cases of displaced perception, and as such, do not require any additions to our ontological catalogue.

4.4 Absence-based discrimination

Another kind of experience that might seem to provide a *prima facie* case for positing absences as novel objects of perception is that based on discriminatory abilities. Before explaining why discrimination might be thought as reason to reify absences as *sui generis* entities, it is first important to distinguish between various kinds of discrimination available to a subject. Typically we think of discrimination as an act of successful discernment. A subject discriminates in a case where he is able to judge the distinctness of two kinds of thing.⁵ Here discrimination is to be thought of as a kind of cognitive act that the agent performs. Call this kind of discrimination *agential discrimination*. Timothy Williamson characterizes agential discrimination along the following lines:

What is it to discriminate? The verb has an active meaning, in a more than purely grammatical sense. To discriminate is to do something. That is not, of course, to say that discrimination is a bodily (rather than mental) act, still less that it is whatever falls under a certain behavioural (rather than intentional) description. Discrimination has at the very least a cognitive component. For

⁵Williamson (1990: 5-6) suggests that discrimination is factive. One cannot “falsely” discriminate. One either has correctly discriminated or not done so at all.

the processes involved in discrimination can also lead to ignorance or error. If I fail to discriminate between the lengths of two lines, one slightly longer than the other, there is something I have failed to find out. If, misled by perspective, I judge one line to be longer than another, and they turn out to be equal length, my would-be discrimination was incorrect. Failures of discrimination are cognitive errors, so discrimination is a cognitive act. (Williamson 1990: 5)

Williamson takes agential discrimination to be the central notion of discrimination, but he also recognizes other ways in which we speak as though discrimination is taking place.⁶ Certain kinds of drug tests are able to discriminate between various kinds of substances that are in the blood stream. Our senses discriminate between various kinds of stimuli in that they can produce in us different experiences when confronted with different entities, even if we ourselves do not judge that the experiences are different. Drinking juice in the morning, I enjoy a different experience than that had when I drink coffee in the afternoon. My senses (and by extension my sensory experiences) discriminate between the juice and the coffee in responding differentially to them, even though no judgments or cognitive acts characterize the differentiation. Call this kind of discrimination *non-agential discrimination*.

⁶Williamson (1990: 5) ultimately thinks that these kinds of discrimination are merely metaphorical. We speak as though the discriminating entities are cognitive subjects making judgments as we do, even though they are not. I will not pursue in depth whether discrimination should actually be said to be taking case in such instances.

Agential and non-agential discrimination often go hand in hand. My senses non-agentially discriminate different objects of perception by producing different perceptual experiences, and I often agentially discriminate the perceptual experiences as phenomenologically different. If I introspect my experience of the taste of coffee, I can judge that it is an experience with different contours than my experience of the taste of juice.

There is a further distinction to be drawn between two kinds of agential discrimination. Agential discrimination can be performed with more or less refinement. Sometimes a subject discriminates two items in very basic terms, simply along the dimension of identity. That is, a subject makes a simple judgment of difference, without discriminating in terms of a particular feature. Looking at two qualitatively identical items, I can discriminate the two with something like a demonstrative judgment of the form ‘*this* is not *that*’.⁷ More often, however, we discriminate on the basis of a specific kind of feature. I recognize that two items are different in terms of perceptible features, or on the basis of descriptions that only one of the items satisfies. I can discriminate between two vintages of wine based on taste, or between two paintings based on color. I may be able to discriminate between President Obama and President Sarkozy because I recognize that one, and only one, satisfies the description ‘current President of France’.

⁷Perhaps in such cases, a simple feature like spatial location is guiding my discriminatory capacities. I am able to judge that two things are not the same because they do not share the same space. However, this is not to say that I recognize myself as doing so.

My ability to discriminate may be not only specific, but also conceptually laden. I can in some cases discriminate the taste of truffles in a vintage of Pinot noir, and be able to recognize this taste as that of truffles. That is, I may be able to conceptualize the feature in virtue of which I discriminate as that of the taste of truffles. Thus, we can distinguish between the following varieties of agential discrimination:

Simple agential discrimination: Agentially discriminating without discriminating in terms of particular features

Complex agential discrimination: Agentially discriminating on the basis of a certain feature

Conceptually-laden complex agential discrimination: Agentially discriminating on the basis of a certain feature, and conceptualizing that feature in one's experience

With these distinctions at hand, we can now address absence-based discrimination. The modality of taste presents perhaps some of the most suggestive cases. When I eat a highly salted dish, I typically enjoy a salty gustatory experience. I do not (normally) undergo those kinds of gustatory experiences when I eat unsalted dishes. In this way, my senses non-agentially discriminate between the presence and absence of salt. My senses (and sensory experiences) do so even when I'm not agentially discriminating. I may taste a salted dish, and then an unsalted dish and not introspect the varieties of gustatory experiences that I am undergoing because I am rapt by the dinner conversation.

In such a case, I do not agentially discriminate the presence of salt in one dish from the absence of salt in another one, even though my senses (responding differentially) non-agentially do.

There are also cases of simple and complex agential absence-based discrimination. Lou is a forgetful cook. Sometimes Lou prepares his vegetable soup with cumin. Other times Lou omits adding the cumin. When Nico is subjected to Lou's inconsistent cooking, she can taste that there is a difference between the soup with cumin and the soup without cumin. One way she can do this is to simply agentially discriminate that the two dishes taste different. Another way she can do this is in terms of complex agential discrimination. If Nico has a refined palate, she may be able to taste the difference between a soup with cumin and one without, even if she does not know what cumin is. When tasting a soup without cumin, she can determine that the soup she is tasting tastes different from one that contains it, even though she does not know what ingredient, if any, is responsible for the difference in taste. Such a case is a matter of complex agential discrimination of the absence of cumin from the dish.

If Nico has an even further refined palate, she may be able to make conceptually-laden complex agential discriminations. In such cases, Nico can detect the difference between soups with and without cumin, and does so in terms of cumin. Nico can report that she can taste that there is no cumin in one, and only one, of the dishes, and she can successfully identify which dish lacks cumin. Given the ways in which she conceptualizes her experiences,

this instance of complex agential discrimination (unlike the previous cases explored) is conceptually-laden.

Such cases of non-agential and agential absence-based discrimination generalize across the modalities. When listening to a jazz ensemble, one can distinguish between periods in which the saxophone is playing and those in which it is not. My sense of audition (and my auditory experiences) can non-agentially discriminate between these two different periods during the performance, even if I do not agentially discriminate them. If one has a relatively sharp ear for music, one can agentially discriminate between the periods in which saxophones are playing and those in which they are not. One can do this simply, by determining that *something* is different about the period during which saxophones are not playing, even if one cannot determine what is responsible for the difference. In doing so, one achieves a simple agential discrimination of the absence of saxophones during the period in which they are not playing. One might alternatively be able to home in on a unique sound that is missing, while they are nonetheless unable to determine what instrument is responsible for that sound. Such a subject has discriminated the presence and absence of saxophones in a complex way. With a sufficiently sharp ear for music, one can determine that saxophones are not playing via a concept-laden complex agential discrimination of the absence of saxophones. Even sharper ears are able to discriminate, in each of the various ways, the absence of tenor as opposed to alto saxophones.

One could appeal to these capacities in arguing for positing novel entities such as absences as objects of perception.⁸ For one, it seems natural to say (and we often do say) that one can sensorily perceive absences via discriminatory capacities. As discussed above, one can taste the absence of cumin, or hear the absence of saxophones. When it comes to non-agential discrimination of absences, one might suggest that the senses respond differentially based on their tracking the absence of a certain feature. My senses produce different experiences when salt is absent because they track some entity or feature present in the dish – namely the absence of salt. In this sense, one might think that the objects of awareness are entities with a distinctive metaphysical profile. Similar things might be said for agential discrimination of absences. When Nico agentially discriminates between soups that do and do not have cumin, she does so on the basis of taste. One who wants to introduce absences as novel objects might say that what undergirds her ability to discriminate is that she perceives, in one instance, cumin, and in another instance, the absence of cumin. Putting things in this way, it seems that one is able to track absences via the senses in much the way that one tracks ordinary objects and properties.

I do not want to play down the attractiveness of thinking of absences as objects of awareness. Indeed, one could use LTA's absences as explored in Chapter 2 to serve as such objects of awareness. However, as I now want to show, we do not *need* to appeal to novel entities like absences in order to explain

⁸Thanks here to Rob Koons and Michael Tye.

our discriminative capacities. The experiences themselves do not conclusively rule in favor of reifying absences as novel objects of awareness. Moreover, thinking that we *must* do so is to be wrongly seduced in the ways discussed in the previous section. That a subject can be said to taste the absence of cumin, or that a subject's senses can detect when there is an absence of cumin, does not *in itself* mean that there is some novel feature being tasted or detected.

What, then, does tasting the absence of cumin amount to if it is not awareness of a particular kind of novel object? It amounts to tasting *that* a particular ingredient is missing from the dish. As such, we should treat statements of the form 'P tastes the absence of x' as cases in which a subject is able to sensorily discern that x is not among the ingredients of the dish. Such cases, like Sartrean experiences, are best understood as cases in which we enjoy epistemic awareness that something is not the case. Awareness of absence, once again, is best construed in terms of awareness of negative existentials.

I shall now offer the details of such an account of absence-based discrimination. When it comes to non-agential discrimination, what is needed is an explanation of why senses respond differentially to the presence and absence of certain features. Accounting for non-agential discrimination requires that we first provide an account of what is responsible for one's sensations, and what features one sensorily tracks. Second, we must explain how this enables one to discriminate between such sensations. Indeed, any such theorist who wants to account for the variety of discriminatory experiences must offer such an account. The machinery invoked in explaining the variety of experiences is of

course available to one who wants to reify absences as novel objects of awareness in cases of absence-based discrimination. However, it should be noted that since this account does not require the resources of reified *sui generis* absences, the absence theorist who utilizes it will in essence have conceded that the relevant experiences themselves do not conclusively make the case for reification.

Accounting for non-agential discrimination of absences is a relatively simple affair. When Nico eats the soup, with cumin or not, what she tastes is just that – the soup. What is responsible for the experience she enjoys is partly her makeup – her physical and functional constitution and the organs and systems associated with her sense of taste – and partly the ingredients of the soup. When sampling the two different soups produces in her distinct gustatory experiences, i.e., when her senses non-agentially discriminate between the presence and absence of cumin, we can account for this by appealing to her physical makeup and the ingredients of the two soups. The soups taste different because they *are* different, and her perceptual faculties are sensitive to this. A soup that contains cumin contributes to her particular experience (partly) because it contains cumin, among other ingredients. Her experience in tasting a cumin-less soup can be accounted for by appeal to the ingredients it actually contains. The senses respond differentially because they are sensitive to the fact that there is a difference in ingredients.⁹

⁹In many cases, of course, a perceiver's faculties do not produce different experiences despite a difference in ingredients. This constitutes a failure in non-agentially discriminating

Of course, the differences in ingredients alone are insufficient to account for an ability to *agentially* discriminate between a soup with cumin and one without. Some perceivers have a wholly unrefined palate, and as a result cannot make such discriminations. That a subject's faculties non-agentially discriminate between a soup with cumin and one without is similarly insufficient in grounding agential discrimination of the absence of cumin. A subject might not notice or attend to the differences between the experiences. As a result, a subject could fail to agentially discriminate even though her senses non-agentially do. How, then, can we account for a subject's ability to make such agential discrimination? We can offer a sufficient explanation of such an ability via appeal to her conceptualization of her own experiences.

First, consider simple agential discrimination. With a sufficiently refined palate, we are able to distinguish one kind of taste experience from another. For Nico to perform simple agential discrimination, she has to be able to tell simply that one dish does not taste like another dish. This does not require her to be sensitive to facts about such differences in terms of some specific feature or ingredient like cumin. Indeed, she may be conceptually impoverished such that the only judgment she can make is that one thing she tastes is not like another thing she tastes. This does not require much apart from the ability to recognize that the phenomenal character of two experiences is not identical. Introspecting her experiences, she is able to make a

between soups with different ingredients. In such cases, the subject's senses fail to glom on to a difference in the real world.

comparative judgment regarding the way the two soups taste and deem them non-identical. Her senses non-agentially discriminate between the two soups, and on the basis of the differential responses of her senses, she is thereby able to simply agentially discriminate.

Complex agential discrimination requires greater sensitivity to particular kinds of difference. When a particular ingredient is missing from one dish, but not another, the dish without the ingredient might taste more tart than the one that contains it. I might even be able to pick out a dish that lacks such an ingredient on the basis of this tartness, even though I would not know what was responsible for it. What I have detected, in this case, is the absence of that ingredient, even though I may not know the identity of the relevant ingredient.

It might seem strange to attribute awareness of the absence of an ingredient to a subject who lacks the concept of that ingredient. However, there is a sense in which we can uncontroversially do so. Consider the following. When I look at my car and notice a puddle of fluid beneath it, I am in a position to see that my car is leaking fluid, even though I cannot identify what is responsible for the leak. When a mechanic looks at that same puddle, his expertise enables him to identify the source of the leak. There is a sense in which my mechanic and I share knowledge: we both are able to see that *something* in my car is leaking. In another sense, my mechanic has the ability to see that certain things are the case which I cannot: he is able to see that the transmission is leaking. A subtle shift in scope reveals another

sense in which my mechanic and I can both see that something is case. Given that the transmission is responsible for the leak, in looking at the puddle, the transmission is such that both the mechanic and I see that it is leaking, even though (unlike the mechanic) I fail to see *of the transmission* that it is leaking. A subject who can pick out a dish that lacks a particular ingredient, without being able to identify that ingredient, is like the naïve subject looking at the puddle of fluid. It is true of the missing ingredient that the subject can taste that it is missing, even though it is not true that the subject can determine *of the ingredient* that it is missing. In this limited sense, then, we can allow that a subject detects that absence of ingredients whose identity they cannot determine.

Conceptually-laden complex agential discrimination brings with it the ability to identify particular entities or features. In the gustatory case, this might involve identifying certain ingredients whose presence or absence contributes to distinctive tastes. That refinement comes with (or perhaps is constituted by) possession of a battery of concepts with which to categorize experiences. Oenophiles are a familiar example of perceivers with a rich range of concepts for categorizing their experiences in tasting wine. With such a battery of concepts at the ready, one is thereby able to say with increased detail in what exact sense, and with regard to what particular dimension, two experiences may differ. Nico may be able to conceptualize her gustatory experience in terms of whether or not it includes cumin. Were Nico to report that she can taste that there is no cumin in the dish, this would be evidence

of such a conceptualization being deployed. Nico is in essence categorizing her experience as one in which the taste of cumin, or the aggregative taste that cumin would contribute to a dish, is missing. In such a case, we can say that Nico has discriminated the absence of cumin in a conceptually-laden, complex way.

To further characterize the mechanism underlying such discriminatory abilities, we can along these lines offer a displaced perception based account of the phenomenon of agential discrimination, an account similar to the one charted above with regard to Sartrean experiences. In tasting the soup, one is thereby able to taste *that* it lacks cumin, given one's conceptual repertoire and how successfully one can utilize it in categorizing their experiences. As in the case of Sartrean experiences, we could maintain that we arrive at what we epistemically perceive via some sort of personal or subpersonal inference (perhaps involving a counterfactual connecting belief about how our experiences would be were some missing ingredient present). Alternatively, we could maintain that such connections are wholly non-inferential. As in the case of Sartrean experiences, there are ultimately a variety of options one has for offering a natural explanation in terms of displaced perception of how we are able to engage in agential discrimination.

As a result, our ability for discrimination fails to provide much in the way of an argument in favor of ontological inflation. Carefully considering absence-based discrimination, it becomes evident that the best characterization is in terms of a subject's abilities to determine certain kinds of (typically

negative existential) facts regarding the things of which they are perceptually aware. One can provide a clear account of such abilities without appeal to any kind of novel entity.

4.5 Dark experiences

More than any other philosopher, Roy Sorensen (2004) and (2008) has made a compelling case for perception of absences by appealing to putative cases of perception of darkness. Darkness, Sorensen holds, is an absence of light. What it is for a region to be dark, after all, is for there to be no light there. Assuming that darkness is an absence of light, if we ever see darkness, it would accordingly follow that we see an absence. For Sorensen, we non-epistemically see darkness and as a result see absences. He takes absences to be a novel kind of object, yet he refuses to offer anything like a metaphysical account of what an absence is supposed to be such that it would qualify as a suitable object of perception.¹⁰

Moreover, according to Sorensen, it is crucial to note that perceivers *non-epistemically* see darkness. That is, their experience is not a matter of seeing *that* or judging *that* it is dark. One consideration in favor of this claim is that it seems possible that creatures who lacked concepts of darkness could have the relevant experiences. The experience one has when entering an unilluminated room or looking at a shadow does not require possession of a

¹⁰See Sorensen (2008) p. 19.

battery of concepts involving darkness. Seeing darkness is in this regard just like seeing tables or chairs, and not like seeing *that* there are tables and chairs in the room.

As I'll demonstrate in this section, dark experiences ultimately do not provide a case in favor of reifying absences as novel *sui generis* entities. However, in showing why, it will be important to distinguish two very different kinds of dark experiences. The first kind of experience is one of total darkness, an experience of the sort one enjoys when in a wholly unilluminated room. An altogether different kind of experience is that of local darkness. One has an experience of local darkness when one sees a silhouette, or an eclipse, or a shadow. These different experiences, as will emerge below, require importantly different treatments.

4.5.1 Total darkness

In this section, I shall consider Sorensen's appeal to experiences of total darkness as an argument in favor of reifying darkness as a *sui generis* entity that serves as the object of perceptual awareness. I shall argue that the phenomenal nature of the experiences themselves does not require *any* object of awareness, much less a novel addition to our ontological catalogue.

4.5.1.1 Phenomenology in experiences of total darkness

Sorensen (2004) maintains that when a (human, adult) subject is in an unilluminated environment, he can epistemically see *that* it is dark. Of

course, he is right. Open your eyes in a dark room, and you can judge on the basis of your experience that it is dark. Sorensen also makes the more controversial claim, however, that a subject also non-epistemically sees darkness. One consideration he offers putatively speaks in favor of this latter claim. He maintains (2004: 458-459) that things look a particular way to a perceiver in the dark. Indeed, we do not cease to have visual experiences in the dark. There is something it is like to be in a dark room. The suggestion appears to be that since it is true to say that it looks some way to you in the dark, there must be some thing (the darkness) such that it looks that way. In the dark, we often say that it looks dark. What, other than darkness, could look that way?

It is, of course, counterintuitive to maintain that subjects see anything in the dark. The most natural understanding of our experience in the dark holds that we cannot see anything. This natural picture can be further elaborated and supported by appeal to the way vision normally works. Typically we see objects in virtue of the light that they reflect. Light facilitates our ability to see. When there is no light (and when our perceptual faculties are not aided by devices like night-vision goggles) we cannot see anything. In pitch darkness, no light is being reflected toward our retina. As a result, our eyes receive no information from the environment. We do not see the objects in our vicinity. We do not see our unilluminated surroundings. We do not see *anything* in the dark. Not even darkness.

Before diagnosing what is wrong with Sorensen's contrary suggestion,

we should first carefully characterize the distinctive phenomenology had with one's eyes open in total darkness. Consider, for example, the difference between the sighted with open eyes in an unilluminated room and the blind. The blind person has *no* visual phenomenology, whereas a sighted person in a dark room enjoys an experience with a distinctive visual phenomenology. There is nothing it is like visually for the blind person, while there is something that it is like for the sighted person.

We can also differentiate the experience of darkness had in an unilluminated environment from experiences we might have with our eyes closed. When in an *illuminated* room with our eyes closed, things don't look dark, especially if the closed eyes are oriented facing a light source. Turn away from the light source with your eyes closed, and the visual phenomenology starts approaching, but still does not reach, that had in an experience of darkness.

Visually, it *looks* different to us when we close our eyes as opposed to having them open. This is so even in an unilluminated room. The pressure on our eyes from closing them, and the rubbing against the eyelids that results from saccades of closed eyes, often produces delicate phosphene experiences, those experiences as of diffuse colored patches that we can induce by rubbing closed eyes with our hands.¹¹ Moreover, the *overall* phenomenology differs between experiences had with the eyes closed versus those had with the eyes

¹¹Interestingly, Hüfner, et. al (2008) note that open eye saccades and closed eye saccades in the dark result in the activation of different areas of the brain, which could perhaps corroborate the difference in visual phenomenology.

open, regardless of whether the surroundings are illuminated. Closing our eyes, our experience is characterized not only visually (where it looks more or less dark depending on the illumination conditions, our orientation, and the degree to which eye movements cause phosphene experiences) but also by the effortful phenomenology accompanied by closing our eyes, along with the bodily phenomenology of pressure against our eyes. The phenomenological difference between having one's eyes open in an unilluminated room versus having them shut is thus to be accounted for not only by the visual element, but also by the total phenomenology of these experiences. Remove these extraneous elements, and one's experience in the dark with closed eyes would presumably duplicate that had with eyes open in the dark.

As such, Sorensen is certainly right that it *looks* dark in the dark. This does not mean, however, that there must be some entity such that it looks dark to us. We should be careful in cashing out statements of the form 'it looks dark'. It might be tempting to think that the 'it' in 'it looks dark' is referential. However, when we say 'it looks dark' in characterizing the phenomenal character of our experience, we should not be understood as claiming that some entity looks some way to us. The 'it' should instead be treated as pleonastic. 'It looks dark' should be regarded as on a par with 'It is raining'. There is no thing such that it is raining, just as there is no thing such that it looks dark. Such sentences are best seen as examples of Strawson's (1959) *feature-placing sentences*. Feature placing sentences do not refer to objects and attribute properties to them. They are not standard

subject-predicate sentences. Instead, they simply pick out a certain kind of feature. In uttering a sentence like ‘It is raining’, we are not referring to some object (like a cloud) and claiming that it has a property. Rather, we are simply homing in on a specific feature, namely something like rainfall in our vicinity. Likewise, a sentence like ‘It looks dark’ is most naturally read as a feature placing sentence, locating a feature like darkness in our vicinity.

Yet if there is no thing such that it looks dark, how can we make sense of our experiences in the dark as having the distinctive phenomenal character that they do? The answer comes from rumination on the function of the visual system, and how it deals with light. Typically, where there is lots of light, the things that we see appear bright. When there is less light, things appear dimmer. When there is no light reflected from objects in our proximity, those objects don’t look any way to us. No thing looks any way to us. We have an experience characteristic of failing to see, and that experience is the result of our visual system not receiving any information via reflected light.

Sorensen holds that we must posit some novel object of awareness to account for experiences of total darkness. However, as I have just shown, the characteristic phenomenology of these experiences can be adequately characterized and differentiated from similar kinds of experiences without positing *any* objects of awareness, much less novel ones. Indeed, the primary advantage of such an account is that it cleaves to the intuitive idea that we simply do not see in the dark, despite the fact that we have experiences with distinctive phenomenology in the dark. All that is required is the claim that such experi-

ences are the result of our visual system receiving no information via ambient light.

4.5.2 Local darkness

Total darkness isn't the only experience of darkness we enjoy. Sorensen (2008) claims that we also have experiences of darkness when we see dark things in the form of silhouettes, eclipses, and shadows. While Sorensen treats shadows as *sui generis* absences, as we will see, he takes silhouettes to be rather ordinary kinds of thing. Nevertheless, as I will show, even in the case of silhouettes, his account of how we perceive them is unsatisfactory. In what follows, I will offer the proper account of silhouette and shadow seeing.

When looking at a silhouette, or an eclipse, or a shadow, there is a good reason to think you non-epistemically see *something*. You can on the basis of your visual experience differentiate the dark figure from its surroundings. I can, looking at a silhouette of an animal, differentiate the silhouette from other visible things in its vicinity. During a solar eclipse, I can differentiate the eclipse from the rest of the sky. Similarly, I can generally differentiate my shadow against the ground from the ground around it, or from other shadows. For Michael Tye (2009), such an ability forms the basis for non-epistemic seeing in general:

If a phenomenally conscious state of mine is such that at a minimum it at least enables me to ask “What is that?” with respect to

some entity, and it does so directly on the basis of its phenomenal character alone, then I am conscious of that entity. (Tye 2009: 14)

Note that here, unlike Tye, I am not attempting to offer *any* general theory of seeing. I am instead simply making the reasonable suggestion that if a subject can differentiate something from its surroundings *purely visually*, i.e., even if this is unaccompanied by the ability to form demonstrative thoughts, she should count as seeing it.¹² When it comes to perceiving local darkness, subjects *do* have such an ability.

Perception of shadows is a different affair from perception of silhouettes or eclipses. When I see a shadow, I see a darkness produced by a body that blocks light. The darkness produced, however, is not where the object blocking the light is. When I see an eclipsing object or a silhouetted object, the darkness is often (but, as we will see, not always) where the object blocking the light is. In order to adequately characterize our experiences of local darkness, then, it will be best to consider seeing silhouettes and eclipses as one sort of case, while treating seeing shadows as another sort of case.

4.5.2.1 Seeing silhouettes and eclipses

What *exactly* do we see when we see a silhouette or an eclipse? When looking at a silhouetted or eclipsing object, it is reasonable to say that we see only the object in that place. If we know what the silhouetted object is,

¹²Note that the differentiation condition is not also a necessary condition on seeing. As will emerge, in some cases of perception, no such differentiation is involved.

whether it is an eclipsing body or an animal, we typically report that we can see only it. Looking at the moon eclipsing the sun, it seems natural to say that we only see the moon. Watching a silhouetted animal moving through the forest, it strikes us that it is only the animal that we see where the silhouette is.

It is thus natural to ask *how* it is that we see the object. Adherence to Grice's (1961) causal theory of perception would suggest that we can only see an object if it is a suitable cause of our seeing it. We certainly don't see silhouetted objects in virtue of the light that they reflect. Rather, we see them in virtue of the light that they block. Since no part of the facing surface of a silhouetted object is causally responsible for our seeing it, we cannot say that we see a silhouetted object by seeing its facing surface.¹³

Such a claim seems reasonable. When looking at a silhouetted object, we might complain that we cannot see its facing surface. For good reason: we cannot. The illumination conditions prevent us from doing so. Sorensen takes these observations and makes a remarkable claim about how it is we see silhouetted objects. Since we see a silhouetted object in virtue of the light it blocks, he reasons that we see the object by seeing its absorption surface, i.e., the far surface of the object that blocks the light. As he puts it:

When I see the silhouette of an object, I see the object. I see an

¹³Surfaces and surface-like entities such as edges will play a large role throughout the rest of this section. Space does not allow a discussion of the nature of such things. Avrum Stroll (1988) offers perhaps the most thorough discussion of the nature of surfaces.

object only if I see part of it. That part must cause my perception in an appropriate way. In the case of naked, opaque, silhouetted objects, the only part that can play this causal role is the object's absorption layer. Therefore, when I see a silhouetted object, I see its back surface. (Sorensen 2008: 50)

For Sorensen (2008: 36–7), I count as seeing the object by seeing its silhouette. Sorensen ultimately maintains that a silhouette is to be *identified* with the absorption surface of a silhouetted object, and that it is this absorption surface of which we are aware when we see silhouettes. This account is admirably inventive, though it is nonetheless quite problematic. Sorensen's proposal makes our perceptual faculties far too powerful. Our perceptual mechanisms are suited to enable us to see an impressive array of things. However, we should not allow that our perceptual mechanisms enable us to see the *back* surfaces of objects. Those surfaces are occluded by facing surfaces (and by the rest of the object between those two surfaces).

Where has Sorensen gone wrong? He maintains that he arrives at his conclusion by following the causal theory of perception to its logical result. We might thus think the causal theory of perception is to blame. However, some form of the causal theory seems right at least as an account of how perception *actually* works (in particular, if it manifests itself as the mere claim that we must be causally related to seen objects). Indicting the causal theory would seem counterproductive.

Fortunately, we can diagnose the problem with Sorensen's reasoning

without giving up on at least a *minimal* version of the causal theory of perception. How, then, can we count as seeing the object if we are unable to see any surface of it, and if no light reflected from it reaches us? The answer lies in thinking about what an object's blocking light enables us to attend to. When a silhouetted object blocks light, it draws attention to the boundary between the object and the world outside of it. In blocking light, we can thus see the *edge* of the object. Seeing the edge of the object ultimately makes the spatial region the object occupies especially salient in our perceptual experience, and helps explain why silhouetted objects look to be objects spread out in space. Typically, our experiences of silhouettes have little depth. In such cases, it is perhaps most reasonable to say that we are aware only of the region of space that the silhouetted object's facing surface occupies. Not all cases of silhouette seeing lack such depth, however, and thus we are aware of more than just that region occupied by an object's facing surface. In latching on to the edge of the object (which the object's blocking light enables), we are thereby able to attend to the region the object occupies. As a result, we have been enabled to latch on to the object.

It is important to stress that seeing a silhouette does not require that the subject be aware *that* he is seeing a silhouette, or that he is able to correctly judge what the silhouetted object is. Seeing a silhouette is simply a matter of seeing an object by virtue of seeing its edges. A subject might fail to identify the silhouetted object in any conceptually rich way, or indeed, may fail to recognize it *as* a silhouette at all.

One might be wary of the claim that in seeing the edges of things, we are thereby enabled to be aware of spatial regions. For one, it might be thought that treating regions of space as objects of awareness is no better than simply positing *sui generis* absences. However, regions of space are not bizarre metaphysically negative entities in the way that absences are commonly thought to be. Moreover, they have a kind of pedigree that absences lack, and are commonly invoked in contemporary discussions of physics.¹⁴

Moreover, visual awareness of spatial regions is not in itself terribly controversial. It is common to attribute *indirect* awareness of spatial regions to subjects. When a subject is aware of an object, she is typically aware of it as spreading through and occupying a volume of space. Additionally, work in psychology suggests that spatial awareness is crucial in influencing allocation of attentional resources, even if those resources are primarily aimed at objects.¹⁵ Thus, in being perceptually aware of an object, a subject can be said to be perceptually aware of the space it occupies.¹⁶

The most central way that spatial regions are made salient in our experience is via our awareness of the spatial features of ordinary objects, their

¹⁴See, for example, Baker (2005).

¹⁵See Egly et. al (1994), Mozer and Vecera (2005), Vecera (1994), and Vecera and Farah (1994).

¹⁶Attributing spatial awareness to a subject is not a particularly new phenomenon. William James (1887) took great care to set out the various ways in which a subject could be said to be aware of space. For James, various sensations of spatial extension amount to what he (1887: 2) calls “the original *sensation of space*, out of which all the exact knowledge of space that we afterwards come to have is woven by processes of discrimination, association and selection.”

spreading through and occupying volumes of space. However, this is not the only way in which such regions are made salient. Illumination conditions can also draw our attention to spatial regions. The work of American artist James Turrell crystallizes one way in which light can draw our attention to spatial regions. Some of Turrell's pieces, such as "The Light Inside", utilize projected light. These projections of light appear to the viewer to have three-dimensional shapes, and even to have mass. The viewer is seeing projected light. In seeing the projected light, she is thereby aware of the spatial region that the light permeates. It is this feature that Turrell exploits in order to give his audience the distinct sense of being aware of a volume. Silhouettes and eclipses present yet another case in which unique illumination conditions enable subjects to be aware of spatial regions. Instead of light permeating the relevant region as in Turrell's work, silhouette and eclipse cases are such that light bounding an object and enabling its edge to be seen creates a visual contrast that enables the subject to be aware of an unilluminated region.¹⁷

A considerable advantage of this account is the way it easily handles an interesting perceptual puzzle discussed by Sorensen (2008: 20-22). Imagine viewing a double eclipse of the sun. Two heavenly bodies, one further away from you than the other (the former of which he labels 'Far', the latter 'Near'), eclipse the sun simultaneously. You enjoy a perceptual experience as of a single

¹⁷I have said that seeing spatial regions is facilitated by objects or illumination conditions, and that local darkness cases are examples of this broader phenomenon. An interesting question, and one that I cannot adjudicate here, is whether awareness of space *requires* such facilitation. Work by Posner, Snyder and Davidson (1980) certainly suggests that subjects can attend to empty spaces without the aid of objects.

dark body in the sky. Given the considerations raised earlier about your ability to differentiate the dark body from its surroundings, it appears that you see *something* when observing the double eclipse. As Sorensen notes, we cannot say that we see Near. Near neither blocks nor reflects light. It is causally inert with respect to our perceptual experience. Moreover, Near lies totally hidden in the shadow of Far. On the other hand, Far blocks light from the sun, and it alone is responsible for producing the dark region in the sky. Sorensen concludes that we see Far in virtue of seeing its absorption surface. This amplifies an earlier problem with Sorensen's account. In order to see Far's absorption surface we would essentially have to see through not one, but two objects: Near and the parts of Far between us and Far's absorption surface.

On the alternative account on offer, we see Far in virtue of seeing its edge, the boundary between it and the world around it, which is undergirded by the gradient of light at the boundary of Far. Seeing Far by seeing its edges does not enable us to see much of Far, or to be very sensitive to facts about Far. Indeed, given Near's presence, we would be unable to notice a difference even if Far were to disappear entirely. The perceptual scene would be unchanged, as now Near would block light and produce a silhouette indistinguishable from the one Far produced. Even though the way things look would not change, *what* we see would. Were Far to disappear, we would then see Near, since we would then see Near's edges, made salient by Near's blocking light.

This should be no more puzzling than a case in which a red tomato before a subject is replaced (unbeknownst to the subject) by a qualitatively

indistinguishable one. The subject would be having indistinguishable visual experiences, and thus be unable to tell that the original tomato was replaced. The subject's insensitivity to facts about *which* tomato is seen, and his inability to tell that he's looking at a different tomato, are irrelevant to the facts about what it is he sees. Before it was replaced, he saw the original tomato. After it was replaced, he saw its replacement. Likewise, the mere fact that a subject would be insensitive to changes in Far – even changes as severe as its presence – does not mean he does not see Far when it blocks light, or would not see Near were Far to be destroyed.

While Sorensen and I disagree about how we see silhouetted objects, we nonetheless agree that seeing silhouettes does not require reifying novel absences, or any kind of unfamiliar *sui generis* entity. An adequate account of perceiving the local darkness characteristic of silhouettes requires only familiar entities: the silhouetted objects, their edges and the spatial regions they occupy.

4.5.2.2 Seeing shadows

Sorensen (2008) also takes shadows to be dark things that subjects see. Unlike the case of silhouettes, Sorensen maintains that shadow seeing is a matter of awareness of a novel entity, an absence. Nevertheless, as I'll now show, nothing about our experiences in perceiving shadows requires treating shadows as novel objects, much less the kinds of novel objects that have the mysterious metaphysical character of Sorensen's absences.

It is important first to distinguish two general kinds of shadow. Most shadows are *imperfectly* dark. They can be seen through, in much the same way that we can see through tinted glass. Other shadows are *perfectly* dark. They cannot be seen through, being so dark that one is unable to see the surface on which the shadow is cast.

What do we see when we see an imperfectly dark shadow? Typically, we see certain patches on the ground (or on some other figure) that are dark, and others that are more brightly illuminated. Often, we are able to notice that such patches are in the form of distinctive shapes. These distinctive shapes are formed by the objects that block the light. We usually detect shadows by the variations in illumination conditions presented in a shadowy scene. Shadows are striking because they present a contrast – sometimes sharp, sometimes not – with their surroundings. In canonical cases of seeing shadows, a contrast in illumination conditions draws our attention, and enables us to differentiate the less illuminated parts of the scene before us. Here we can see an important similarity with silhouette and eclipse cases. Just as in the silhouette case, an object’s blocking light draws our attention to certain parts of objects (namely the less illuminated parts) and by extension to the regions of space that those objects occupy. The primary difference is that in seeing shadows, we are not directly enabled to (non-epistemically) see the object blocking the light, or the region occupied by that object.¹⁸ It is thus reasonable to suggest that in order

¹⁸Sorensen (2008: 37) does not think that in seeing shadows we see the objects that cast them. In support of this claim, he draws an analogy with our inability to see objects by

to see an imperfectly dark shadow *as* a shadow, we must be able to discriminate the unilluminated region from the more illuminated surroundings.¹⁹

It isn't always the case, however, that we must be able to so discriminate in order to count as seeing a shadow. Imagine looking up close at an imperfectly dark shadow on the grass, such that one cannot see the more illuminated regions in its surroundings. What one sees are (relatively) unilluminated objects, and the objects are unilluminated because of an object's blocking light. Compare this to a case of looking at a yellow square against a red background. As a subject moves closer to the yellow square, she will eventually be unable to see the red background. As such, she will be unable to discriminate the yellow square from any of its surroundings – indeed, she may be so close that she is even unable to see it as a square. Yet, she still sees the yellow square.

Given the truisms above, one reasonable suggestion is that what we

seeing holes that they leave. We cannot, he suggests, see an animal by seeing a track that it left. Whether or not we should count as seeing objects by seeing their tracks, it's at least not obvious that we should refuse to admit that we see shadow casters. For one, shadows allow us to synchronically track objects in a way that their footprints do not. This tight link that shadows give us with objects might lead us to think that one gets to count as *indirectly* seeing the shadow caster by seeing the shadow, even though one might not see *that* the shadow is produced by the caster. As such, one might even treat this indirect awareness as non-epistemic. Alternatively, we could maintain that any sense in which we can be said to see the caster is merely epistemic. Knowing the etiology of the conditions of illumination, we can claim awareness-*that* regarding the object casting the shadow. In seeing a shadow with a certain shape, and recognizing that the shadow is the shape of a person, I might reasonably describe myself as seeing a person in my vicinity. Here displaced perception has a role to play in characterizing the kinds of things we can claim to see when seeing shadows.

¹⁹Here I take it that seeing something *as* a shadow would at a minimum require the ability to deploy the concept 'shadow' in one's experience, or alternatively, such a concept figuring in what one judges on the basis of one's experience.

see in seeing imperfectly dark shadows are simply ordinary objects. Seeing an imperfectly dark shadow, then, is a matter of non-epistemically seeing ordinary objects under varying conditions of illumination, with the differential illumination conditions being produced by a shadow caster's blocking light. Experiences involved in seeing imperfectly dark shadows do not require any *novel* entities, like Sorensen's absences, of which we are aware. Rather, they reveal that we are aware of familiar kinds of entity, albeit (typically) under striking variations in illumination conditions.

Perfectly dark shadows are such that we cannot see the objects upon which they are cast. Such shadows effectively hide the objects that lie in the unilluminated region produced by a shadow caster's blocking light. One important difference from imperfectly dark shadows is that it seems we should not count as seeing perfectly dark shadows when we are unable to discriminate them from their surroundings. Imagine being totally enveloped by a perfectly dark shadow, such that you cannot discriminate any surrounding illuminated regions. Such a scenario is best modeled as a case of total darkness. As mentioned above, in total darkness, one sees nothing. Likewise, you cannot see anything in a perfectly dark shadow.

Nevertheless, under certain conditions of ambient illumination we are able to differentiate perfectly dark shadows. If there is illumination around the perfectly dark shadow, we can discriminate the dark from the illumination around it. As such, we seem to see *something*. We cannot see the objects on which the perfectly dark shadow is cast – those objects are hidden. This,

however, does not mean that we see any novel entities like Sorensen's absences. The right account is to maintain that seeing a perfectly dark shadow is a matter of being visually aware of only the unilluminated region, and not of the things that occupy that region. Such an analysis preserves the sense in which it is right to say that we see something (since there is something that can be differentiated from its surroundings) and also that the shadow prevents us from seeing the things on which it is cast. As in the case of imperfectly dark shadows, this account does not require that we reify perfectly dark shadows as novel Sorensenian absences.

This story also provides a natural solution to a puzzle Sorensen (2008: 66-75) addresses called "the disappearing act". Consider a brick that has been treated by an artist to look exactly like a perfectly dark shadow. The artist has also suspended a cone beneath a lamp to cast a shadow with the exact dimensions of the brick. You watch as the artist slides the brick beneath the lamp, into the shadow of the cone. What do you see? Sorensen suggests the following:

The artist has made the brick disappear! He has done so without changing the appearance of the brick and without disturbing your knowledge of its presence. Prior to being parked in the place of the shadow, you saw the brick by virtue of the contrast it made with its environment. But now, no part of the brick is exposed to the light, so the brick is no longer absorbing light. While parked, the brick could grow yellow spots and spin. That would not affect what

you see. The brick could contract in the shape of a bowling pin, wobble, and then further shrink into non-existence. Once again, what you see would not change. The low degree of functional dependence is due to the fact that the brick is causally idle. To be seen, an object must be a cause of what is seen. Therefore, the brick cannot be seen. The artist has also made the *shadow* disappear – by destroying it. Once the brick moves in, there is no room for the shadow. A shadow cannot exist wholly within an opaque, solid object. This principle explains why a brick on the ground does not cast a shadow into the earth below it. (Sorensen 2008: 66-7)

According to Sorensen, we see the shadow. In seeing the shadow, we see an entity that has been “hollowed out” by the presence of the brick. As I’ve suggested above, Sorensen has wrongly treated awareness of shadows as awareness of a special kind of object. Treating shadows in this way, it would indeed be difficult to explain what it is we see when the artist slides the brick under the lamp and why that thing gets hollowed out as opposed to destroyed. However, our characterization of what constitutes seeing perfectly dark shadows above provides a simple solution. You do not see the brick. It is wholly hidden within an unilluminated region, i.e., in the perfectly dark region shaded by the cone’s blocking light. As noted above, seeing a perfectly dark shadow is simply a matter of being visually aware of a spatial region that is wholly unilluminated in virtue of an object’s (namely, a shadow caster’s) blocking light. The cone beneath the lamp blocks the light, marking a sharp

contrast in the scene before us, thus making us aware of the brick shaped region. It is that region that we are aware of in the disappearing act. That region is perfectly occupied by the brick, but that does not make one aware of any bizarre “hollowed out” entity. We are not aware of the brick, even though we happen to be aware of the spatial region which the facing surface of the brick exactly occupies.

The foregoing account of seeing shadows brings with it a reductionism about shadows themselves. It leaves open, however, whether the reduction is one of *elimination*, in which we simply deny the existence of shadows in favor of shaded regions, or one of *identification*, where we identify shadows with shaded regions.²⁰ Unlike Sorensen, this account does not treat shadows as novel entities of which we are aware in perceptual experience. Instead it merely treats shadow seeing as (in the imperfectly dark case) seeing ordinary objects under particular illumination conditions or (in the perfectly dark case) seeing unilluminated regions by virtue of a contrast of illumination.

²⁰As with any such reductionist account, there are various phenomena for which we will need to account. One might think that our ability to track shadows betrays their being reduced to regions. For instance, we seem to be able to track shadows. Shadows, that is, seem to move. But, if shadows are just regions, then they *can't* move. The reductionist has various options here. One is to adapt the account of holes offered by Wake, Spencer and Fowler (2007), which allows for moving holes even if we take holes to be regions, and treat shadows as perduring, process-like entities. On such an account, we might treat the “movement” of a shadow as a matter of its having different spatial regions as temporal parts at different times. Thus, our ability to track shadows provides no motivation for an anti-reductionist account of shadows.

4.6 Perceiving holes

A final example of perceiving absences comes in seeing holes. It is uncontroversial that we see holes. I can see the hole in my shirt when I look in the mirror. I can feel a hole in the wall as I run my hand across the wall. Such perception is not best treated as awareness that something or other is the case, and as such perception of holes is not best treated as awareness that a certain kind of negative existential proposition is the case. One can imagine a non-conceptual creature whose visual experiences enabled them to detect holes. For instance, it seems possible that a non-conceptual creature could discover and hide inside a hole. Alternatively, one might see a hole while failing to see it *as* a hole.²¹

If we are not to treat perception of holes as a form of epistemic awareness, what should we take the object of non-epistemic awareness to be? One might take perception of holes as a matter of perceiving an entity with a peculiar metaphysical character. Haldane (2007: 184-5) maintains that a hole is an example of an “actuality dependent privation”. As a result, it would seem that Haldane should maintain that when we see a hole, we see a privation, a metaphysically strange entity. However, as I shall now show, experiences involving holes do not themselves require taking the objects of awareness to be such novel entities.

Our discussion of perceiving localized darkness above presents the key

²¹James Turrell’s artwork *Acton*, which I shall discuss in further detail below, is an example of just such a case.

to analyzing perception of holes. Canonical experiences of silhouettes and shadows are, as I have argued, anchored in and facilitated by the distinctive visual patterns that result from particular kinds of illumination conditions. Perceiving a hole is a result of a similar distinctive visual pattern that is set up not by illumination conditions, but rather by features of objects in which holes appear.

As Argle – one of the interlocutors in David and Stephanie Lewis’s (1970) dialogue – famously establishes, wherever there is a hole, there is a hole-lining, a material boundary for the hole. While Argle ultimately motivates a position that identifies holes with hole-linings, this observation about the relation between holes and hole-linings provides the basis of the analysis for what we see when we see holes. Our awareness of holes is enabled by the awareness of the boundary of the hole. It would be difficult – if not impossible – for me to detect a hole in my shirt unless I see at least the parts of the shirt that form the boundary of the hole. The distinctive visual pattern in this case is set up by a sort of visual interruption in the object seen.

As Casati and Varzi (1994: 155-157) have suggested, in seeing a hole, however, we do not *just* see the thing by which the hole is bounded.²² We can also focus on what the boundaries contain. In much the same way that perfectly dark shadows do, the pattern of boundary and bounded in the case of

²²Casati and Varzi (1994) ultimately endorse an account of holes as *sui generis* immaterial bodies located at spatial regions. The considerations herein reveal that nothing about seeing holes requires such a treatment.

holes can draw our attention to a particular spatial region. Seeing the material boundary of the hole-lining enables us to attend to the spatial region inside the boundary.

As in the case of shadows, this account of perceiving holes brings with it a certain kind of reductionism. Holes are not to be thought of as novel *sui generis* entities. Here, too, the account is neutral as to whether the reduction is one of elimination (where we simply deny that there are holes) or identification (where we identify holes with some more familiar entity). If the reduction is one of identification, the account is silent with regard to what in particular holes are reduced to. One might take the view outlined by Argle and identify holes with hole-linings. In such a case, one sees a hole just in case one sees the material hole-lining. Alternatively, we might instead identify holes with the spatial regions bounded by the hole-lining.²³ In this case seeing a hole is a matter of seeing the bounded region. Typically, awareness of such regions is facilitated by awareness of material boundaries, enabling us to attend to the bounded region. Awareness of such boundaries is but one way for our attention to be drawn to such regions. As discussed above, the work of American artist James Turrell highlights the ways in which lighting can draw our attention to spatial regions. Turrell's *Acton* exploits illumination conditions to draw our awareness to a hole (thought of as a spatial region, not as a hole-lining) in just such a way.

²³For just such a reduction, see Wake, Spencer and Fowler (2007).

In the case of *Acton*, the viewer can see the hole-lining. We could nevertheless even allow that we can see holes *whenever* we are aware of the region with which the hole is identified, regardless of whether we see the hole-lining. Here the story is similar to that offered in the case of imperfectly dark shadows, where seeing does not require differentiation from surroundings. Consider looking into an immense tunnel dug into the earth, so big that you are unable to see any of its material boundaries. Now imagine that the tunnel is filled with colored light, such that you are able to attend to parts of the bounded region with which the hole is identified. In such a case, since one is visually aware of the bounded region (in virtue of being aware of part of it), one sees the hole, even though one cannot see the hole-lining. This would be no different than counting as seeing an ordinary object in virtue of seeing only part of it: indeed, the object may be so big, or so close, that you can *only* see a relatively small part of it.

The experiences involved in perceiving holes do not force us to reify novel *sui generis* absences as the objects of perception. Unlike Sartrean experiences or absence-focused discrimination, such cases are not fundamentally a matter of epistemic seeing or awareness that something or other is the case. Much as in the case of perceiving darkness, we can account for perception of holes by appealing to perception of ordinary objects and regions.

4.7 LTA and perceiving absences

The foregoing discussion reveals that no novel entities are required to serve as the objects of perception in the various cases of perceiving absence. In Sartrean experiences and absence-focused discrimination, we can nonetheless provide a sense in which subjects can be said to perceive absences. If we characterize absence-talk in these scenarios in terms of negative existentials, we are in a position to explain how subjects might count as being aware of absences. Subjects are simply able to perceive that certain negative existential propositions are the case.

Nevertheless, in cases in which we perceive darkness, as well as those in which we perceive holes, it seems we may be at risk of losing the sense in which we can be said to be perceptually aware of absences at all. After all, in cases in which we are aware of shadows, silhouettes and holes, the proper analysis attributes to the subject awareness of ordinary objects and/or regions of space. Perception of holes has been characterized as a case in which we are aware of (at least part of) the material boundary of a hole and the region of space which is bounded. As such, it is unclear how we can ground the intuitive notion that seeing localized darkness counts in *some* sense as awareness of an absence of light, or that seeing a hole should count as a kind of awareness of a certain kind of absence.

LTA, the theory of absences highlighted in Chapter 2, preserves the sense in which we can be said to be aware of absences. Recall that on one version of that theory, absences are identical to the spacetime complements

of entities.²⁴ According to this version of the LTA, the spatial regions of which we are aware in cases of perceiving localized darkness and holes count as, respectively, absences of light and absences of the item in which the hole appears. Since perfectly dark regions are unilluminated, i.e., regions in which light is not located, these regions count as parts of the spacetime complement of light. As a result, LTA counts these regions as parts of the *absence* of light. Given the method of intersection discussed in Chapter 2, the dark region of which we are aware is the absence of light from that region. In being aware of these regions, we thereby count as aware of an absence of light. A hole in a piece of Gruyère cheese is a region with special topological relations to that piece of cheese: it is a region bounded by the cheese. If we get to be aware of such a region, as our awareness of the material boundary enables us to do, we count as aware of a certain kind of absence of cheese that is interestingly topologically related to the cheese itself. This version of LTA is thus uniquely positioned to allow that we can be aware of absences in the cases in which we perceive localized darkness or holes.

4.8 Conclusion

Perception of absences forms a central class of experiences that ordinary subjects enjoy. Up to this point, such cases have been shrouded in mystery, and

²⁴On a distinct version of the theory, absences are *constituted* by such complements. This version treats absences as novel entities, and so will be unable to preserve both the claim that we don't need new entities in cases of perceiving absence and that absences *qua* entities are actually perceived.

as such largely ignored in discussions of veridical perception. The study above serves two purposes. First, it shows that the perception of absence does not require the ontological inflation that many philosophers have suggested. We do not need to appeal to metaphysically bizarre entities in order to adequately characterize the relevant kinds of experiences. Second, it provides analyses of our perceptual relations to absence in a way that showcases the similarities with other more familiar kinds of veridical perception. Far from being an alien and puzzling variety of experience, perception of absence falls naturally alongside the kinds of perceptual experience with which we are well acquainted.

Moreover, the above discussion constrains the ways in which those who want to reify novel entities can defend such an ontological inflation. None of the foregoing discussion rules out that there are entities of the sort advertised by Sartre, Taylor, Martin, and the others who have fought to establish the reality of metaphysically mysterious entities. It does, however, reveal that their battle lines must be drawn in another domain.

Chapter 5

Truthmaking: Old Work for a New Theory of Absences

5.1 Introduction: Truthmaker theory and the problem of negative truth

With ever-increasing frequency, philosophers endorse and invoke the theory of *truthmaking*. On the theory of truthmaking, at least some truths have *truthmakers*. As a first approximation, and put most simply, a truthmaker is some entity whose existence makes a truth true. Take, for instance, me. On this theory, I make a number of claims true. Since I am a human being, I suffice to make *that there is at least one human being* true. I also suffice to make *that there is at least one English speaker* true, given that I am indeed an English speaker.

Much has been made about the “making true” relation. Perhaps the most popular conception has it that making true is a *necessitation* relation.¹

¹As Merricks (2007: 6) notes, this take on the making true relation “is the only widely endorsed claim among truthmaker theorists that begins to take...the idea that every truth is ‘made true’ by something...to a clearly formulated thesis.” This view is defended most famously by Armstrong (2004: 5) and (2010: 67–8), and, as Merricks (2007: 6) points out, also finds support in Fine (1982: 69), Fox (1987: 189), Molnar (2000: 84), and Smith (1999: 276). Smith (1999) is careful to note, however, that truthmaking is not *mere* necessitation. In recent years, there has been a stirring of resistance to the idea of truthmaking as anything like necessitation. See, for instance, Schnieder (2006).

On this sort of view, the existence of a truthmaker *necessitates* the truth of the relevant proposition. My existence, so the thought goes, necessitates the truth of *that some human being exists*. Truthmaker theorists often interchangeably speak of truth as being *necessitated by* what is the case, or *determined by* the world, or *grounded in* reality.² Regardless of how exactly we are to cash out the notion of making true, the central thread running through accounts of truthmaking is the idea that what is true does not “float free” of the world’s constituents. The essence of truthmaker theory has it that truth depends, in some sense, on what there is.³ As Rodriguez-Pereyra (2005) has nicely put the point, truth is *determined* by reality.

This conception of the relationship between truth and reality suggests an array of dependence relations between truths and chunks of the world. It is for this reason, then, that truthmaking is traditionally thought of as a relation that holds between a truth (here to be thought of as a true proposition) and an entity (like a concrete item, or a property instantiated by such an item, or a complex made of an item’s instantiating a property). One might have simply thought that we can answer questions about truthmakers in something like a minimalistic mood. What is the truthmaker for the truth *that there is at least one human being*? In a minimalistic spirit, one could suggest that simply that there is at least one human being makes the truth true. As Julian Dodd

²Though there are significant worries to be had about whether these ways of speaking are equivalent, pursuit of such an issue is beyond the scope of this chapter.

³Indeed, some have suggested that the focus on truthmakers is a natural extension of the *correspondence theory of truth*. See, for instance, Bigelow (1988: 122).

(2007: 386) notes, however, such a move essentially sidesteps the spirit of truthmaking, since it does not in itself provide the ontological basis in reality that constitutes the underlying ground for the truth.

To claim that there are truthmakers is not to claim that *every* truth has a truthmaker. This latter claim is known as *truthmaker maximalism*. One interesting question that arises in this domain is whether one can *legitimately* go in for truthmakers without also going in for truthmaker maximalism. Ross Cameron (2008), Julian Dodd (2007), and Trenton Merricks (2007) have recently argued that if one is tempted by the claim that *any* truths have truthmakers, then a concomitant resistance to truthmaker maximalism seems ill-motivated. If one accepts the idea that some truths have truthmakers, then it seems unduly restrictive not to apply the same principle to all truths *mutatis mutandis*. After all, if the central idea behind truthmaking is that sketched above, where truth is somehow grounded in the world, then it would seem strange for some truths to be ungrounded. If one allows for ungrounded truths, one has simply given up on anything like a robust truthmaking theory. Ross Cameron explains the motivation for such a position as follows.

Truthmaker theory is a theory about what it is for a proposition to be true; it's just not the kind of theory that can apply only in a restricted domain. What possible reason could one have for thinking of some propositions that they need to be grounded in what there is that doesn't apply to all propositions? (Cameron 2008: 412)

As a result, Cameron, Dodd, and Merricks each maintain that one should either resist the idea of truthmaking altogether, or else accept truthmaker maximalism. Cameron's suggestion, and the similar suggestions of Dodd and Merricks alike, ultimately pose a dilemma for those who are attracted to the idea of truthmaking but resistant to truthmaker maximalism. Either truthmaker theory is unmotivated, or all truths have truthmakers.

One may wonder why one who endorses a truthmaker theory would want to resist truthmaker maximalism in the first place. Here too, Dodd and Cameron point out that perhaps the greatest obstacle to truthmaker maximalism, and the primary reason for wanting to deny it, has been an underlying suspicion that some truths simply do not have suitable truthmakers. The truths that have caused the most trouble are so-called "negative" truths. Such truths are about what is *not* the case, truths of the form *that Lou Reed is not a member of The Rolling Stones* or *that unicorns do not exist*.

If we take the considerations raised by Cameron, Dodd, and Merricks to heart, then the vindication of truthmaker theory requires suitable truthmakers for negative truths.⁴ The difficulties in this area have led many to reject truthmaker theory, or any theory that requires an ontological basis for truth, altogether.⁵ Others suggest simply weakening truthmaker theory's demands for an ontological basis for truth. David Lewis (2001) recommends that we

⁴For further worries about truthmaker theory, see Dodd (2007), Hornsby (2005), Melia (2005).

⁵See especially Merricks (2007).

forego the requirement that there must be entities that make each truth true and instead think of truth as *supervenient* on being, holding that any two possible worlds that are identical in terms of what exists (and what those things that exist are like, i.e., the properties and relations instantiated by those entities) must be identical in terms of what is true about them.

Indeed, as these debates bring out, there is room to question the merits of a robust truthmaker theory. One might wonder why we should accept a theory on which truth requires grounds in concrete reality in the way that truthmaker theory does. One might also question the coherence of the theory in general, wondering how exactly to characterize the dependence/necessitation/grounding relation on which the theory of truthmaking hinges.

For our purposes, however, I do not want to challenge truthmaker theory in itself. I want instead to focus on the question of whether there is any hope to be had for one who seeks to preserve a robust truthmaker theory in the face of negative truth. Can suitable truthmakers be provided for negative truths? In what follows, I will consider the prospects by surveying two popular kinds of objects that have been offered as truthmakers for negative truth. First, I will show that the efforts to provide novel, *sui generis* objects to serve as truthmakers for negative truths have been unsatisfying, since most are rightly suspicious of reifying the kinds of entity at issue simply in the service of truthmaker theory. Second, I will discuss how truthmakers for negative truths that have been offered from among the more garden variety

constituents of the world have also been problematic. While such entities are able to provide truthmakers for a wide variety of negative truths, there are two kinds of negative truths that are stubbornly resistant. These are negative truths involving an entity's lacking a determinable property (which we shall call "accidental negative" truths) and truths involving non-existence (which are familiarly known as "negative existential" truths).

I will then explore how the absences of the LTA theory offered in Chapter 2 could be employed to provide suitable truthmakers for the problematic kinds of negative truths. Most importantly, they can do so without falling prey to the kinds of objections that have plagued earlier attempts at providing truthmakers for negative truths.

Cast in the light of negative truth, truthmaker theory ultimately represents an interesting case study in the debates surrounding whether absences must be reified. If one believes in truthmakers at all, and if one is convinced by the aforementioned considerations raised by Cameron, Dodd, and Merricks, the following reveals that one has significant reason to accept absences as characterized by LTA. LTA's absences allow those attracted to truthmaker theory to satisfy the demand for truthmakers for negative truths while avoiding the problems that have plagued other accounts.

5.2 *Sui generis* truthmakers for negative truths

The primary reason that providing truthmakers negative truths has proven so difficult is that philosophers are deeply suspicious of the kinds of

entity that have been offered to serve as potential truthmakers for such truths. In this section, I want to briefly survey the *sui generis* options for truthmakers for negative truths. None of what I say below is intended as a conclusive argument against the kinds of entity on offer. Rather, it is simply intended to bring into focus a particular question about whether we should allow a theory about the nature of truth to pressure us into accepting such entities. Given the strange kinds of entity that have been offered, it is easy to sympathize with those who simply opt to reject truthmaker theory. If these entities exhaust the options we have for truthmakers for negative truths, then perhaps we should rethink the notion of truthmaking altogether. With truthmakers like these, who needs truthmakers?

There are two general types of entity on offer. The first are entities that are purported to be “metaphysically negative”. The second are novel Armstrongian states of affairs of “totality”. As I shall show below, taken independent of the demands of truthmaker theory, neither of these options is particularly attractive. Let’s now consider each.

5.2.1 Metaphysically negative entities

We have throughout been referring to the truths at issue for our purposes as “negative” truths. This way of putting things ultimately intimates a kind of polarity between two kinds of truth. On one hand, there is “positive” truth, or truth about what is the case. On the other, there is “negative” truth, which involves what is *not* the case, and which ultimately brings with it the

notion of negation.

Some believe that the key to finding truthmakers for negative truths is to take this polarity with the utmost seriousness. On their view, this polarity between positive and negative cuts a distinction not only at the level of truth, but also at the level of reality. Positivity and negativity are thus also thought to mark two different *metaphysical* categories.⁶ Thus, on such views, our ontology should contain some combination of positive and negative properties, or positive and negative particulars, or some negative version of instantiation that holds between particulars and properties. On this latter view there are two kinds of relation that particulars and properties can bear to one another. The first is the normal instantiation relation, and the second is a metaphysically negative counterpart of instantiation. Bearing this latter relation results in a complex just as instantiation does, but it results in a *negative* complex.⁷

J.C. Beall (2000) concurs that we take the positive/negative distinction as *metaphysically* significant, and he ultimately employs it for the purposes of truthmaking. Taking the positive/negative distinction seriously, he suggests we treat the polarity of a particular truth as mirrored by polarity in

⁶I would be remiss here not to mention Russell's (1985) account on which there are metaphysically negative entities (so-called "negative facts"). Although there are obvious commonalities linking Russell's concerns and those of truthmaker theorists, debates involving truthmaking *per se* arrive on the scene far later than Russell's original discussion.

⁷Russell's (1985) is commonly understood to bear similarities with this sort of picture. Barker and Jago (forthcoming) maintain that we should think of metaphysical negativity in just this way. Armstrongian states of affairs, on their view, are bound by two varieties of non-mereological composition: the one that binds ordinary Armstrongian states of affairs and separate that binds such states of affairs in a negative way.

metaphysical character. On Beall's account, positive truths are made true by the metaphysically positive, and the negative truths are made true by the metaphysically negative.

It is hard to argue conclusively against such a proposal. However, part of the reason for this is that it is difficult to comprehend what *exactly* one would be objecting to. Such a proposal might be appealing were we able to gain traction on a metaphysical positive/negative distinction. Just what could it be for an entity to be positive as opposed to negative? Such a distinction cannot simply be a matter of how the entity is described. A table, or chair, or countless other ordinary objects (kinds of thing that proponents of this strategy would apparently consider metaphysically positive) can be described in negative terms. We can, for instance, describe a chair by saying what it is not. Nor can the distinction be cashed out in terms of existence. For instance, one might have thought metaphysically "positive" entities are the ones we are ordinarily acquainted with, and thus things that exist. As a result, we might treat "negative" items as nonexistents, and construe positive/negative polarity as tracking a distinction between existing and non-existing things. Nevertheless, this cannot what the relevant distinction amounts to. Both positive and negative entities are, on this account, taken to exist.⁸

⁸And indeed, as discussed in Chapter 2, the theory of truthmaking currently under discussion has it that truths are made true by existents. Though one certainly *could* opt for a Meinongian account truthmaking where truths are made true by existents and non-existents alike, proponents of the theory currently under discussion do not advocate such a change to the theory of truthmaking.

Without further characterization such entities certainly *seem* mysterious. However, it isn't just the mystery that is troubling, it is the depth of the particular mystery involved. Not only is there no account of the nature of metaphysical negativity, no such account seems forthcoming.⁹

In light of this, it is worth taking a step back and reflecting on why metaphysically negative entities have been under discussion. The entities are not the kinds of thing that we have independent reason to think exist. They are brought out for the purposes of salvaging a rather technical *theory* about the nature of truth. As such, it is reasonable to say that if one is choosing between reifying metaphysically negative entities and abandoning truthmaker theory, one might want to consider whether there is any genuinely informative account of the character of metaphysical negativity.¹⁰ Without such an account, it is hard to see why we should accept metaphysically negative entities simply for the sake of truthmaker theory.

5.2.2 Totality states of affairs

Perhaps the most famous attempt to provide truthmakers for negative truths comes from D.M. Armstrong. For Armstrong (1997) and (2004), truthmakers for garden variety positive truths come from complexes of objects and

⁹Beall (2000: 266) and Priest (2000: 318) are quick to defend themselves from the charge of mysterianism, however, by pointing out that polarities *in general* aren't mysterious. After all, they maintain, polarities like that of spin or charge are invoked in science quite frequently. However, as Dodd (2007: 390-2) points out, it's not polarity in general that is the issue. It's rather the *particular polarity* involved in their account.

¹⁰As Cameron (2008: 412) complains, "What is it for a thing to be positive or negative? I have no idea. And as van Inwagen might have said, I don't believe this is my fault."

properties which he labels ‘states of affairs’. So, for instance, the truthmaker for a truth like *that Tom is tall* is a complex whose constituents are Tom and the property of being tall, with those constituents being bound together to form a complex.¹¹

When it comes to negative truths, Armstrong thinks we must look at special kinds of complexes in order to find truthmakers. He posits “totality states of affairs” to serve as truthmakers for negative truths. These are complexes that ensure that all the facts about what is the case really are *all* of the facts.

Take, for instance, a negative truth of the form *that Theaetetus is not flying*. Armstrong’s proposal is that there is a state of affairs *regarding* all of the states of affairs that there are involving Theaetetus: namely, that there are no more states of affairs than these. As he puts it:

There is a certain conjunction of first-order states of affairs in which Theaetetus figures. These, we assert, involve nothing but positive properties. (Relational properties can be included, but they too must all be positive.) Postulate a further, higher-order state of affairs: that this collection is *all* the states of affairs in which Theaetetus is involved. Is this not a good candidate for a truthmaker for the negative truth? (Armstrong 2004: 58)

¹¹Armstrong takes this binding to be a matter of what he calls *non-mereological composition*. That is, the constituents are not to be thought of to stand to the complex in the part-whole relation. The nature of this binding is controversial – see Lewis (1986a: 94–97) and (1992: 200) – but it is for our purposes unimportant.

Take all of the states of affairs involving Theaetetus, and take the totality state of affairs on which these are all of the states of affairs involving Theaetetus. Armstrong's claim is that since none of the Theaetetus-involving states of affairs is one in which Theaetetus flies, and since we have the state of affairs of these being *all* the relevant states of affairs that there are, the truth of *that Theaetetus is not flying* is necessitated in the right way. We thus, according to Armstrong, have the appropriate grounding of the negative truth. He accordingly takes the totality state to provide a truthmaker for the negative truth.

One might have qualms in accepting, with Armstrong, that a totality state of affairs exists. Independent of truthmaker theory, it is hard even to see how to motivate the existence of things like totality states of affairs, or second order states of affairs in general. We have reasons independent of truthmaker theory to accept the existence of the constituents in reality like tables and chairs. For instance, we might accept their existence because we see them, or because we causally interact with them. No such parallel reasons extend to things like totality states of affairs.

Nevertheless, we need not rely on *these* metaphysical scruples in adjudicating whether or not totality states of affairs should be accepted into our ontology. There is a deeper problem with Armstrong's totality states of affairs, one that we have already seen in connection with the discussion above about metaphysical negativity. Totality states of affairs really *just are* metaphysically negative in the problematic sense just explored. As a result, they

are no better than the metaphysically negative entities that we have already discussed. Consider:

[T]otality states of affairs are just disguised negative states of affairs. As Armstrong himself admits (2004: p. 73), the totalling relation itself involves negation...Consequently, the obtaining of a totalling relation *itself* a negative fact, and hence cannot yield a non-question-begging account of the nature of such facts. Ultimately, then, it turns out that we do not have a distinct positive proposal here. Armstrong's account does not provide a solution to the problem of the ontological nature of negative states of affairs so much as presuppose one... (Dodd 2007: 389)

As Dodd notes, Armstrong's totality states of affairs are ultimately no better than the metaphysically negative entities that we first considered. Others who are sympathetic to Armstrong's general picture according to which truths are made true by states of affairs have tried to offer alternative *sui generis* accounts. However, like the metaphysically negative entities we've just explored, these are likewise all things with a dubious pedigree, and are quite unlike anything else that we would normally happily accept into our ontology. We have already discussed two such proposals, offered by C.B. Martin and Boris Kukso, in Chapter 2. Martin (1996) suggests that we reify a novel category of states of affairs as deeply primitive, where such states of affairs are to serve as truthmakers for negative truths. Kukso (2006) has suggested that negative truths are made true by something that exists yet is not any kind of entity:

not object, not a property, not a state of affairs. Though he takes pains to state what the relevant truthmakers are *not*, Kukso offers no help as to what they are. We are ultimately left in the same position as we were in the case of metaphysically negative entities. A distinction between various kinds of entities is introduced with no clear characterization of the nature of the difference, and no obvious way to grasp the nature of the novel item.

Again, I want to stress that this complaint about the mysteriousness of such entities is in no way a conclusive argument against those who would utilize them as truthmakers for negative truths. It is simply an attempt to shift the burden of proof on those who believe we should cleave to truthmaker theory at all costs. Instead of reifying exotica just for the purposes of providing truthmakers for negative truths, why not simply weaken the requirements on the relation between and the world imposed by the theory of truthmaking?

We have thus far focused our attention on attempts to provide truthmakers for negative truths that look to novel entities. However, perhaps all we need to serve as such truthmakers can be found among the ordinary kinds of things that we already accept. If that were the case, we need not worry about reifying novel entities all for the sake of preserving truthmaker theory. In the next section, I shall to explore whether such a strategy can work. Ultimately, I shall reveal that it too is problematic. While there is nothing in particular wrong with the ontology that is offered, there are problems with how these ordinary truthmakers do the relevant truthmaking work.

5.3 Ordinary truthmakers for negative truths

One option that has been pursued by those looking to provide truthmakers for negative truths is to simply consider ordinary kinds of entity, the sorts of thing we already take to exist, the properties and relations those things instantiate, and/or complexes of such things.¹² Given the truthmaker theorist's claim that truth is grounded in what there actually is, the driving thought here is that we can find features of reality that somehow ground truths about what is not the case. The ontological basis for a particular negative truth, just like that for a positive truth, is to be found among the garden-variety constituents of the actual world. In this section, I will make clear what problems this kind of strategy faces. As will ultimately emerge, one could salvage something of the spirit of this strategy for providing truthmakers for negative truths by including LTA's absences among the things existing in reality.

On this strategy, ordinary items are supposed to make negative truths true. As I will show, there are certainly *some* negative truths that present no problems for the ordinary truthmaker account. There are other kinds of negative truths, however, that are quite problematic. The primary reason ordinary truthmakers cannot adequately do the truthmaking work has to do with *how* ordinary truthmakers are supposed to make negative truths true.

¹²Such an option has been considered by Cameron (2008), Cheyne and Pidgen (2006), Mulligan, Simons and Smith (1984), and to a limited extent by Armstrong (2004).

5.3.1 Negative truth, ordinary truthmakers, and exclusion

Recall that the theory of truthmaking maintains that truths are necessitated (or at least somehow grounded) in what there is. When it comes to a truth like *that snow is white*, truthmakers theorists will typically maintain that its truth depends on (or is necessitated by or grounded in) snow and its features. Taking truthmaking as a dependence relation, given snow and its color, the relevant truths simply cannot fail to be true.

When it comes to negative truths, this grounding of truth is typically thought of as a kind of *exclusion*.¹³ A negative truth is true because what is *not* the case is prevented, or excluded from being the case, by the way things actually are. Take a truth like *that snow is not black*. On this proposal, such a truth is grounded in snow and its actual features in virtue of the fact that snow and its actual features *exclude* its being black. Snow is white, and being white excludes being black because (put simply) being white is incompatible with being black. Given that snow's being white is incompatible with, and thus excludes, its being black, snow's being white is alleged to thus *ground* – and as a result *make true* – truths about what is not the case about snow's color. Armstrong speaks to the virtues of this kind of strategy when it comes to determinate properties:

Colour is a determinable, scarlet is one of its determinates. As is well known, a huge number of properties (and also many relations

¹³See especially Mulligan, Simons, and Smith (1984: 315) and Armstrong (2004: 62) for expositions of such a strategy.

and even functional laws of nature) can be regimented under this scheme. *Determinates* are where the Incompatibilist triumphs. A set of determinates under the one determinable are incompatible by definition. If an object is not a mile in length, then in normal cases at least, it will be some other length, a length incompatible with being a mile in length. If an object is not scarlet, this will be because it is some other definite colour, a colour incompatible with being scarlet. (Armstrong 2004: 62)

While the ordinary truthmaker strategy looks successful when it comes to truths about an object's lacking a certain determinate property in virtue of possession of an inconsistent or incompatible property, it is unsuccessful generally. There are two kinds of truths that have proven difficult for the ordinary truthmaker view. The first has to do with truths involving the lack of a determinable property. These are so-called "accidental negative truths". These are truths like *that water is colorless*. The second class of problematic truths that we shall discuss are negative existential truths, truths like *that unicorns do not exist*. Let's consider each.

5.3.1.1 Accidental negative truths

As we have just seen, there is reason to be confident about the exclusion strategy when the relevant negative truth involves an object's lack of a *particular* determinate property where the possession of that property is excluded by the object's possession of an inconsistent determinate. Being red *excludes* or *rules out* being green. Thus, we can ground the truth *that cardinals are*

not green in cardinals and their actual redness, since possession of redness by cardinals rules out their being green.

However, as Julian Dodd notes, this exclusion proposal cannot work generally as an account of how ordinary things ground negative truths. There are very many negative truths which simply cannot suitably be grounded in or determined by ordinary truthmakers. In particular, Dodd is worried about truths involving an entity's *contingently lacking* a certain *determinable* feature. Water is familiarly characterized in such ways. We say that the water in my glass is *odorless* in that it lacks the determinable property of odor, or *colorless* in that it lacks the determinable property of color. Dodd maintains that such truths as *that water is odorless* do not find a ground in objects and their ordinary features.

[W]hen it comes to accidental negatives that deny things to have determinables...the strategy simply will not work. Once it is granted that being odourless is merely an accidental feature of our liquid, there is no good reason to suppose that there is a state of affairs or trope that excludes the liquid's having an odour. Accidentals negatives such as this do not have excluders. (Dodd 2007: 387)

Though water is in this world odorless and colorless, there are of course possible worlds where it has an odor and a color. A colorless portion of water is (presumably) not *essentially* odorless. Thus, merely being water does not seem to rule out or exclude that portion of water's having an odor. Moreover,

when we survey the various features of water, we find nothing that prevents or is inconsistent with its having color or odor.¹⁴ There is nothing about the ordinary features that water actually has (its molecular structure, or its acidity) that *requires* that water be odorless or colorless, in the way that snow's being white excludes its being black. It merely simply lacks odor. In the language of truthmaking, we find no such features to *determine* accidental negative truths in the way required by the theory under consideration. Thus, when it comes to accidental negative truths, ordinary truthmakers seem to be unable to do the truthmaking work.

5.3.1.2 Negative existential truths

We have just seen that the primary difficulty with ordinary truthmakers in the context of accidental negative truths is that they cannot determine the relevant truth in the appropriate way. Similar worries plague ordinary truthmakers when it comes to another variety of negative truths. These are negative existential truths, truths regarding what does *not* exist, like *that unicorns do not exist*.

The ordinary truthmaker strategy under consideration suggests, in essence, that we find the chunks of reality that the negative truths are about and allow that those items and their features ground all the truths about them. If negative truths are to be made true because they are excluded by what is the case,

¹⁴Note here that the answer is *not* then to say that *being odorless* and *being colorless* are then themselves “ordinary features” alongside features like *being red*. This is merely a version of the strategy on which there are negative properties that ground negative truths.

then what feature of the world could make negative existentials true? What could serve to *exclude* the existence of entities like unicorns?

Cheyne and Pidgen (2006) suggest that negative existential truths can indeed be grounded in a chunk of reality along the lines of the exclusion strategy above.¹⁵ We just have to think big. We have to look to the largest chunk of reality – the whole of reality itself – to serve as the truthmaker that grounds the negative existential and excludes the existence of the relevant entity.

On their strategy, the truth *that there are no unicorns* is made true by the world, by our universe as it actually is. Note that this strategy is not the same as Armstrong’s totality state of affairs proposal above. For ‘the world’ or ‘the universe as it actually is’ is here understood as the totality of what there is, not (as under Armstrong’s totality state of affairs proposal) some second order state of affairs that stipulates that the world is the totality of what there is. Cheyne and Pidgen maintain that the universe as it actually is *excludes* the existence of unicorns in the appropriate way:

For (on the assumption that there are no unicorns) the universe would have to be a different way for unicorns to exist. Thus the *way the universe actually is* would *not* exist and some other way the universe might have been *would* exist (namely a way which involved existing unicorns). In other words, for it to be *false* that there are no unicorns, it is necessary for the actual configuration

¹⁵Cameron (2008) offers a similar proposal.

of the universe not to exist. Conversely, the existence of the actual configuration of the universe necessitates *or makes true* the proposition that there are no unicorns. (Cheyne and Pidgen 2006: 257)

Cheyne and Pidgen here suggest that the way the universe actually is grounds the truth that there are no unicorns. There are many ways the universe could have been. On some of those ways, the universe contain unicorns. On others, it doesn't. Given the *actual* configuration of the universe, they maintain, it *must* be true that there are no unicorns. Cheyne and Pidgen thus maintain that the actual configuration of the universe could not exist without its being true that there are no unicorns. According to Cheyne and Pidgen, that the actual configuration of the universe cannot co-exist with unicorns thus excludes unicorns in the appropriate way. As a result, they claim to have found the ontological ground for the negative existential.

There is reason to doubt Cheyne and Pidgen's optimism. As Josh Parsons (2006) points out, the universe as it actually is, as a matter of fact, does not exclude unicorns *full stop*. In order for it to do so, it would have to be impossible for *any* universe to share the configuration of the actual universe and yet be accompanied by unicorns. However, not only is it possible for *some* universe to have the configuration of the actual universe and be accompanied by unicorns, it is possible that the *actual* universe have its *actual* configuration and be so accompanied. He maintains, *contra* Cheyne and Pidgen, that these scenarios are possible just so long as the universe with the actual universe's

configuration does not exhaust the extent of reality.

Simply imagine a possible scenario in which there are two island universes, one of which has the configuration of the actual universe, and the other of which contains unicorns. What is in actuality the entirety of reality would, in this possible situation, merely be a unicorn-less portion of a larger universe which contains unicorns. Moreover, we could even allow that the *actual* universe (with its actual configuration) be one of these island universes. In such scenarios, the actual configuration of the universe exists (i.e., the way the universe actually is) *and* unicorns exist. Thus, nothing about our universe in itself excludes unicorns in the way that the truthmaking proposal under consideration requires.

In this section, I have demonstrated a problem for the theorist who wants ordinary truthmakers to make negative truths true. This brings us to an impasse for the proponent of truthmaker theory. If one is impressed by the dilemma posed by Cameron, Dodd, and Merricks, then the failure of the strategies above means we either have to find some alternative candidate for truthmakers for negative truths or else give up on truthmaker theory altogether. Are there any remaining options for one who wants to preserve truthmaker theory in light of the dilemma posed above? In the next section, I will consider whether LTA's absences might be able to rescue truthmaker theory from the problem of negative truth.

5.4 LTA and truthmakers for negative truths

As we have seen above, ordinary truthmakers might well be able to provide truthmakers for *some* negative truths. The problem, however, is that *not all* negative truths can so easily be provided with truthmakers. In particular, accidental negative truths and negative existential truths have proven rather resistant in the pursuit of truthmakers for all negative truths. In this section, I will explore how LTA's absences might serve as truthmakers for these problematic negative truths. I will also consider whether they can do so in a way that avoids the problems that have plagued the alternative accounts that we have been considering.

The section will proceed as follows. First, I shall consider how LTA's absences might serve as truthmakers for accidental negative truths. Second, I will explore the way in which LTA's absences could provide truthmakers for negative existential truths. Ultimately, what will emerge is that LTA provides a sensible option for one who requires truthmakers for negative truths.

Before moving on, though, a preliminary point is in order. One of the charges leveled earlier against *svi generis* truthmakers like metaphysically negative entities or totality states of affairs is that they are metaphysically mysterious. One will need to be careful in order to avoid a similar charge against the proposal on which LTA's absences as truthmakers for negative truths. Recall that according to LTA, an absence is to be thought of as either *identical to* or *constituted by* an object's spacetime complement. It should be clear that in this context, there is an advantage enjoyed in adopting the version

of the theory on which absences are identified with spacetime complements. If one opts for the version of LTA where absences are constituted by, but not identical to, spacetime complements, then one immediately faces questions as to the exact metaphysical nature of the constituted entity, as well as questions regarding the nature of the constitution relation that holds between the complement and the novel entity. This is not to say that such an account cannot be given. It is to point out that barring *some* such account, one who adopts the constitution version of LTA immediately faces the kinds of criticism that were leveled above against other putative candidates for truthmakers for negative truths.

Opting instead for the identity version of LTA allows one to easily bypass such objections. On the identity version, one is not accepting new entities in their ontology. One is merely utilizing entities that, as I argued in Chapter 2, we already have good reason to believe in. Thus, one can happily avoid the charges of mysterianism that have led many to wonder whether the real lesson of negative truth is that we should simply abandon truthmaker theory altogether.

5.4.1 LTA and accidental negative truths

According to LTA, as canvassed in Chapter 2, the absence of a thing is that thing's spacetime complement. This theory happily generates many kinds of absences. It gives us absences of (among other things) particulars, properties, and individual property instances. On LTA, my absence is my

spacetime complement. Additionally, on one of LTA's ways of generating absences for properties, the absence of a property like redness is the intersection of all the individual complements (i.e., the absences) of instances of redness.

It also allows us to focus on particular aspects of these more general absences. For example, my absence, considered by itself, is quite expansive. Typically, we are only concerned with much more restrictive absences, like my absence from Chicago or from my office. LTA allows us to generate these smaller absences by looking at the intersection of the more expansive absence and the relevant region of interest.

Recall that accidental negative truths are truths involving an object's lacking a determinable property. How might LTA provide truthmakers for such truths? Let's first begin by considering how LTA generates absences of determinable properties. Again, on one way of generating the absences of properties under LTA, the absence of a property is the intersection of all the individual complements (the absences) of particular instances of that property. The story when it comes to determinables is slightly more complex, but essentially the same. Determinable properties can be instantiated in a variety of determinate ways, i.e., there are multiple determinates of determinable properties. Thus, the determinable property of color subsumes various determinates, like the property of being red or the property of being green. The absence of a determinable property would thus be the absence of all instances of the determinates of that determinable. So when it comes to a determinable property like color, its absence would be the intersection of the absences of

the property red, the property orange, the property yellow, and the rest of the determinate color properties. The absences of each those determinate properties are in turn the intersections of the absences of their individual instances. Given the identity version of LTA, the absences of their individual instances are to be identified with complements.

LTA has no problem generating the absence of a determinable property. Nor does it have a problem generating the absence of a determinable property *from an entity*. Take a particular portion of water, call it *w*. Being colorless, it is true that *w* lacks the determinable property of being colored. LTA generates the absence of color from *w* as simply the intersection of the absence of color (which LTA delivers in the manner discussed for determinable properties above) and *w*'s location. LTA can thus also generate the absence of a determinable property from a *kind* of entity by taking the intersection of the absence of the determinable property and the locations of all entities of the relevant kind.

As we have just seen, LTA provides objects that serve as absences for determinable properties. Since accidental negative truths are about an entity's lacking such properties, one natural suggestion is that these objects provided by LTA could serve as truthmakers for such truths. Take an accidental negative truth, like *that w is colorless*. In order to motivate the idea that an LTA absence could serve as a truthmaker, we need reason for thinking it provides an adequate ontological basis or ground for the relevant truth. Such a reason is readily available. Consider the relationship between the existence of the

absence of color from w and what is true about w . If the absence of color from w exists, then *that w is colorless* cannot but be true.

To bear this out, consider some alternate scenario in which w exists and is red. In this alternate scenario, the absence of color from w would not exist. The reason for this has to do with what the absence of color from w amounts to in LTA. LTA generates the absence of color from w by taking the intersection of the absence of color and w 's location. According to LTA, the absence of color is (on the simplest construal) the absence of all of its instances. The absence of color, in this alternate scenario, simply is not located where w is. As a result, LTA cannot generate the relevant object. Indeed, LTA doesn't generate *any* object. The absence of color from w , as a result, does not exist. In this way the existence of the absence of color from w appears to *necessitate* the truth of *that w is colorless*. Thus, we have the basis for the claim that the absence of color from w can serve as a truthmaker for *that w is colorless*. In the very same way that something's being red *excludes* its being green, the existence of the absence of color from w excludes w 's being colored. LTA's absences can thus provide truthmakers for negative truths in a way that conforms to the contours of standard accounts of truthmaking.¹⁶

¹⁶There are more complicated cases that require more complicated treatment. Consider a case where we have two (perhaps *per impossibile*) co-located entities, x and y , the former of which has a charge and the latter of which lacks it. How can we ground the truth of *that y lacks charge*? We cannot simply invoke the absence of charge in the normal way, since there *is* charge in the very same location as the non-charged y . In this case, one could maintain that if there are co-located entities then there must also be co-located spacetime regions. In this case, *one* of the spacetime regions would be free of charge even though the other isn't. Alternatively, one could hold that something like an Aristotelian accidental unity involving

The great advantage of LTA's absences is that they allow for accidental negative truths to be grounded in the appropriate way, namely via exclusion of the property that the relevant entity lacks. Thus, LTA avoids the primary problem plaguing the ordinary truthmaker strategy we discussed above. The ordinary truthmakers we discussed earlier could not exclude such features in this way. There is nothing about w taken by itself, no property that it instantiates, that excludes its having a color. Nor is there anything about the universe as it is (at least, insofar as we ignore the existence of the absence of color from w) that automatically excludes its having a color. The existence of the absence of color from w , however, guarantees that w is not colored, and thus excludes its having a color.

LTA, then, can happily provide truthmakers for one troublesome class of negative truths. This should come as happy news for the truthmaker maximalist, and by extension, to the defender of truthmaker theory in general. We have given a way for the truthmaker maximalist to provide truthmakers for at least some of the negative truths that had proven so difficult, and as a result, we have given the defender of truthmaker theory some of the resources needed to preserve the intuitive idea that such a theory should apply to *all* truths.

We have not yet completely solved the problem of negative truth for one who wants to retain a robust truthmaker theory. For there still remains one class of negative truths for which truthmakers have still not yet been provided.

the non-charged entity could be invoked to serve as the relevant truthmaker. Thanks to Rob Koons for bringing this case to my attention.

In the next section, I will explore the prospects for utilizing LTA's absences in the context of negative existential truths.

5.4.2 LTA and negative existential truths

As we saw in Chapter 2, LTA offers an account of absences not only for existent things, but also non-existents. LTA, then, not only delivers my absence, but it also delivers the absence of a non-existent like Sherlock Holmes. Moreover, as we have already discussed, LTA affords us absences not only of particular things, but also of general *kinds* of thing. Thus, LTA provides the absences not just of humans, but also of unicorns.

LTA's absences of non-existents are, like all absences, the spacetime complements of the relevant entities. Trivially, the spacetime complement of a non-existent – something that lacks a spatiotemporal location – is the entirety of spacetime. As a result, since Holmes fails to exist, and for want of existence fails to be located, Holmes's absence is on LTA the entirety of spacetime. The same holds for unicorns. The absence of a kind of thing will be the intersection of the absences of the members of that kind. Since there are no members of the kind *unicorn*, the absence of unicorns is simply the entirety of the spatiotemporal universe.

Since LTA provides objects to serve as the absences of non-existents, perhaps we could use such objects as truthmakers for negative existential truths like *that there are no unicorns* or *that Sherlock Holmes does not exist*. The idea here would be that the existence of the absence of Sherlock

Holmes, or of unicorns, serves to exclude the existence of the relevant entity, just as in the context of accidental negative truths the existence of the absence of color from a portion of water rules out its having a color. The existence of the absence of Sherlock Holmes would thus determine the truth of *that Sherlock Holmes does not exist* in the appropriate way.

This proposal won't quite work as stated. As we have already seen, LTA allows absences for *both* existents and non-existents. As such, the existence of the absence of an entity won't be sufficient to guarantee the *non-existence* of that entity. And as a result, even if the absence of an entity exists, it could nevertheless be the case that it is false that the entity does not exist. To spell this out, consider a concrete example. I exist. On LTA, my absence also exists – it is my spacetime complement. Thus, the existence of my absence does not necessitate my non-existence. It does not serve to determine any truth regarding my non-existence in the way required by a robust truthmaker theory. In this way, LTA's absences are no better off than the ordinary truthmakers discussed above. Neither serve to exclude the existence of an entity in the way needed to ground a negative existential truth.

There is, however, a *feature* of LTA's absences of non-existents that would serve to exclude the relevant entities. Consider the difference in the relationships that hold between the different kinds of LTA's absences and the entirety of spacetime. The absence of an existent is only identical with a *proper part* of the whole of spacetime. For instance, since I am now located only at certain regions of spacetime, my absence is identical with that large region at

which I am not located. The absence of a *non-existent*, on the other hand, will be identical not merely with a portion of spacetime, but rather with the entirety of it.

We can exploit the relationship that LTA's absences of non-existents bear to the whole of spacetime in order to exclude non-existents in the appropriate way. Consider Sherlock Holmes. Were Holmes to exist, his absence would be merely a portion of the spacetime manifold. The absence of Holmes, in this case, would not be identical to the whole of spacetime.¹⁷ It would be identical to merely a proper part thereof (namely that portion that does not include Holmes himself). The relation of identity that holds between the LTA absence of a non-existent and the spacetime manifold thus provides an ontological basis for the truth of a negative existential proposition. If that relation of identity holds, then Holmes cannot exist. For Holmes to exist, his absence would have to be merely a portion of the spacetime manifold. Thus, LTA's absences enjoy an important advantage over the strategy Cheyne and Pidgen pursue where the entire world is the truthmaker for negative existential truths. Their account founders for want of a feature that appropriately excludes entities like unicorns or Holmes. The relation of identity that holds between the absence of an entity and the spacetime manifold does exclude such entities.

What, however, about the island universes which plagued the account on which negative existential truths have ordinary truthmakers? Can't we

¹⁷The presentist's translation: were Holmes to exist, at some time it would be true that Holmes's absence is merely a proper part of spacetime.

just say that the very entity under consideration – the whole of spacetime – could also be accompanied by, say, unicorns on a separate island universe? If this were possible, we would have ruled out the proper grounding of the negative existential truth.¹⁸ As such, one who wants to utilize LTA’s absences to provide truthmakers for negative truths will simply have to deny that such accompaniment, so understood, is possible. On this account, one would be forced to say that *that very entity* could simply not exist were it accompanied. If we add more regions to spacetime, for instance, or if we add an island universe that contains unicorns, then *that very entity* – the whole of spacetime – would cease to exist and be replaced by a novel object.¹⁹

One’s view of the ontology of time and the entities within it will of course affect the particular details of the story one tells here, but the essence of the story will remain the same. Those who think that objects have temporal parts (i.e. that they are spread out in time *and* space), and who think that all times are equally real, should presumably hold that the absence of Abraham Lincoln – who on this view exists but does not exist *now* – is but a part of a much larger spacetime manifold. Lincoln’s absence *now* – i.e., the current temporal part of his absence – is the whole of the current region of the spacetime manifold. Those who think that only the *present* is real would identify the absence of Lincoln – who is, on their view, now no more real than

¹⁸Thanks to Rob Koons and Adam Pautz for bring this point to my attention.

¹⁹Notice again, however, that it is the commitment to *truthmaker maximalism* that is forcing such claims. Thus, one might be tempted to think that if *this* is the best we can do in the service of truthmaker maximalism (as I have suggested it is), then perhaps we should simply give up the view.

Sherlock Holmes – with the whole of spacetime, even though it *was* the case that, like my absence now, Lincoln’s absence was merely a part of spacetime. Interestingly, both of these views allow us to carve a distinction between the absence of a temporary existent like Lincoln and something that has never existed (and perhaps never *could* exist) like Sherlock Holmes. Holmes’s absence has always been (and may always be) the manifold. Socrates’s absence was not always (and if you accept the eternalist view, still is not) the entire manifold.

Before closing, I’d like to address a potential worry one might have with this LTA account. On the account currently on offer, the spacetime manifold ultimately makes *every* negative existential true. LTA has it that the spacetime manifold is the absence of Holmes, of unicorns, and of phlogiston.²⁰ How can the same thing make such a wide variety of truths true?

There are two reasons this prolific truthmaking should not be seen as problematic. The first has to do with the nature of truthmaking in general. There are *many* prolific truthmakers. As we have already seen, a particular entity can serve as the truthmaker for *many* truths. I serve as the truthmaker for truths like *that someone is over five feet tall, that someone is breathing*, and a host of others. One cannot fault the fact that one thing makes many truths true.

²⁰Again, if you think of all times as equally real, and also hold that an entity (like Socrates) exists, but does not exist *now*, its absence will only be *part* of the spacetime manifold. Namely, it will only be that part through which none of its career runs.

A second reason that this prolific truthmaking should not be seen as problematic is the nature of the truths in question. The truths in question are about things that fail to exist (or at least fail to exist *now*). These negative existential truths, as a result, are all essentially about the same *thing*. Indeed, they are about *no* thing.²¹ They are about *nothing*. As such, it seems reasonable to expect that if such truths have truthmakers at all, they all should have the same truthmaker.

5.5 Conclusion

None of the considerations raised here should be taken to serve as an argument *for* truthmaker theory. Truthmaker theory, with its demands for tight relations between truths and worldly entities, may well be independently problematic. Rather, the above serves to sharpen the need for LTA's absences in the ontology of one who endorses a robust truthmaker theory.

LTA's absences provide truthmakers for the two troublesome kinds of negative truths. In doing so, LTA does much needed work for the proponent of a robust truthmaker theory. As we have seen, there is considerable pressure on the truthmaker theorist to provide truthmakers for *all* truths. LTA gives truthmaker theory some much needed support, and ultimately answers a challenge that could undermine the very motivations behind the theory.

²¹Of course, in the case of Socrates or Lincoln, the relevant negative existential truths are about things that *were* though are not *now*.

Bibliography

- Armstrong, D.M. 1997. *A World of States of Affairs*. Cambridge: Cambridge University Press.
- . 2004. *Truth and Truthmakers*. Cambridge: Cambridge University Press.
- . 2010. *Sketch for a Systematic Metaphysics*. Oxford: Oxford University Press.
- Baker, David. 2005. “Spacetime Substantivalism and Einstein’s Cosmological Constant.” *Philosophy of Science* 72:1299–1311.
- Baker, Lynne Rudder. 1997. “Why Constitution is Not Identity.” *Journal of Philosophy* 94:599–621.
- Barbour, J.B. and Bertotti, B. 1982. “Mach’s Principle and the Structure of Dynamical Theories.” *Proceedings of the Royal Society (London) A* 382:295–306.
- Barker, Stephen and Jago, Mark. Forthcoming. “Being Positive about Negative Facts.” *Philosophy and Phenomenological Research*.
- Beall, J.C. 2000. “On Truthmakers for Negative Truths.” *Australasian Journal of Philosophy* 78:264–8.

- Beebe, Helen. 2004. "Causing and Nothingness." In Collins et al. (2004), 205–24.
- Beebe, Helen and Dodd, Julian (eds.). 2005. *Truthmakers: The Contemporary Debate*. Oxford: Clarendon Press.
- Belot, Gordon. 2000. "Geometry and Motion." *British Journal for the Philosophy of Science* 51:561–95.
- Bigelow, John. 1988. *The Reality of Numbers*. Oxford: Oxford University Press.
- Botani, Andrea and Davies, Richard (eds.). 2006. *Modes of Existence: Papers in Ontology and Philosophical Logic*. Frankfurt: Ontos Verlag.
- Brighouse, Carolyn. 1994. "Space-time and Holes." *Proceedings of the Philosophy of Science Association* 1:117–25.
- Cameron, Ross. 2008. "How to be a Truthmaker Maximalist." *Noûs* 42:410–21.
- Carter, William and Hestevold, H. Scott. 1994. "On Passage and Persistence." *American Philosophical Quarterly* 31:269–83.
- Casati, Roberto. 2009. "Surfaces, Holes, Shadows." In Le Poidevin (2009), 382–8.
- Casati, Roberto and Varzi, Achille. 1994. *Holes and Other Superficialities*. Cambridge, MA: MIT Press.

- . 1999. *Parts and Places: The Structures of Spatial Representation*. Cambridge, MA: MIT Press.
- Castellani, F. and Quitterer, J. (eds.). 2007. *Modes of Existence: Papers in Ontology and Philosophical Logic*. Paderborn: Mentis Verlag.
- Cheyne, Colin and Pidgen, Chalres. 2006. “Negative Truths from Positive Facts.” *Australasian Journal of Philosophy* 84:249–65.
- Chisholm, Roderick. 1960. “Editor’s Introduction.” In his *Realism and the Background of Phenomenology*. Glencoe, IL: Ridgeview, 3–38.
- . 1969. *Seeing and Knowing*. Chicago: The University of Chicago Press.
- . 1973. “Homeless Objects.” *Revue Internationale de Philosophie* 27:207–23. Reprinted in Chisholm (1982), 37–52.
- . 1976. *Person and Object*. La Salle, IL: Open Court.
- . 1982. *Brentano and Meinong Studies*. Amsterdam: Rodopi.
- Collins, John, Hall, Ned, and Paul, L. A. (eds.). 2004. *Causation and Counterfactuals*. Cambridge, MA: MIT Press.
- Colyvan, Mark. 1998. “Can the Eleatic Principle be Justified?” *Canadian Journal of Philosophy* 28:313–36.
- Curiel, Erik and Bokulich, Peter. 2009. “Singularities and Black Holes.” *Stanford Encyclopedia of Philosophy*. Available online at <http://plato.stanford.edu/entries/spacetime-singularities/>.

- Daly, Chris. 2005. "So Where's the Explanation?" In Beebe and Dodd (2005), 85–104.
- Davidson, Donald. 1967. "Causal Relations." *Journal of Philosophy* 64:691–703.
- Dodd, Julian. 2007. "Negative Truths and Truthmaker Principles." *Philosophical Studies* 156:383–401.
- Dretske, Fred. 1997. *Naturalizing the Mind*. Cambridge, MA: MIT Press.
- . 1999. "The Mind's Awareness of Itself." *Philosophical Studies* 95:103–24.
- Earman, John. 1989. *World Enough and Space-Time: Absolute versus Relational Theories of Space and Time*. Cambridge, MA: MIT Press.
- Egly, R. et al. 1994. "Shifting Visual Attention Between Objects and Locations: Evidence from Normal and Parietal Lesion Subjects." *Journal of Experimental Psychology: General* 123:161–77.
- Ellis, Brian. 1990. *Truth and Objectivity*. Oxford: Blackwell.
- Field, Hartry. 1985. "Can We Dispense with Space-Time?" *Proceedings of the Philosophy of Science Association* 2:33–90.
- . 1989. *Realism, Mathematics and Modality*. Oxford: Blackwell.
- Fine, Kit. 1982. "First Order Model Theories III – Facts." *Synthese* 53:43–122.

- . 2003. “The Non-Identity of a Material Thing and Its Matter.” *Mind* 112:195–234.
- Fox, John F. 1987. “Truthmaker.” *Australasian Journal of Philosophy* 65:188–207.
- Grice, Paul. 1961. “The Causal Theory of Perception.” *Proceedings of the Aristotelian Society Supplemental Volume* 35:121–52.
- Haldane, John. 2007. “Privative Causality.” *Analysis* 67:180–6.
- Hall, Ned. 2004. “Two Concepts of Causation.” In Collins et al. (2004), 225–76.
- Heil, John. 2005. *From an Ontological Point of View*. Oxford: Oxford University Press.
- Hitchcock, Christopher (ed.). 2004. *Contemporary Debates in Philosophy of Science*. Oxford: Blackwell.
- Hornsby, Jennifer. 2005. “Truth without Truthmaking Entities.” In Beebe and Dodd (2005), 33–48.
- Hudson, Hud. 2006. *The Metaphysics of Hyperspace*. Oxford: Oxford University Press.
- Hüfner, Katrina et al. 2008. “Differences in Saccade-evoked Brain Activation Patterns with Eyes Open or Eyes Closed in Complete Darkness.” *Experimental Brain Research* 186:419–30.

- Itti, Laurent, Rees, Geraint, and Tsotsos, John (eds.). 2004. *Neurobiology of Attention*. New York: Elsevier.
- James, William. 1887. "The Perception of Space (I)." *Mind* 12:1–30.
- Johnston, Mark. 1992. "Constitution Is Not Identity." *Mind* 101:89–105.
- . 2004. "That Obscure Object of Hallucination." *Philosophical Studies* 120:113–83.
- Karmo, Toomas. 1977. "Disturbances." *Analysis* 37:147–8.
- Keefe, Rosanna and Smith, Peter (eds.). 1996. *Vagueness: A Reader*. Cambridge, MA: MIT Press.
- King, Jeffrey C. 2006. "Semantics for Monists." *Mind* 115:1023–58.
- Kukso, Boris. 2006. "The Reality of Absences." *Australasian Journal of Philosophy* 84:21–37.
- Le Poidevin, Robin (ed.). 2009. *Routledge Companion to Metaphysics*. London: Routledge.
- Leonard, H.S. and Goodman, N. 1940. "Truth-Makers." *Journal of Symbolic Logic* 5:45–55.
- Leśniewski, Stanisław. 1916. "Podstawy ogólnej mnogości, teoryi, I." *Prace Polskiego Koła Naukowego w Moskwie* 2:42pp. English translation by D.I. Barnett: "Foundations of the General Theory of Sets I" in Leśniewski

- (1992), *Collected Works*, S.J. Surma et. al (eds.), Dordrecht: Kluwer, 129–73.
- Lewis, David. 1983. *Philosophical Papers, Volume 1*. Oxford: Oxford University Press.
- . 1986a. “Against Structured Universals.” *Australasian Journal of Philosophy* 64:25–46. Reprinted in Lewis (1999), 78–107.
- . 1986b. “Causal Explanation.” 214–240. In his *Philosophical Papers, Volume 2*. Oxford: Oxford University Press, 152–63.
- . 1986c. *On the Plurality of Worlds*. Oxford: Blackwell.
- . 1990. “Noneism or Allism?” *Mind* 99:23–31. Reprinted in Lewis (1999), 37–52.
- . 1992. “Armstrong on Combinatorial Possibility.” *Australasian Journal of Philosophy* 70:211–24. Reprinted in Lewis (1999), 196–214.
- . 1998. “A World of Truthmakers?” *Times Literary Supplement* 4950:30–33. Reprinted in Lewis (1999), 215–20.
- . 1999. *Papers in Metaphysics and Epistemology*. Cambridge: Cambridge University Press.
- . 2000. “Causation as Influence.” *Journal of Philosophy* 97:182–97. Reprinted in Collins et al. (2004), 75–106.

- . 2001. “Truthmaking and Difference-making.” *Noûs* 35:602–15.
- . 2004. “Void and Object.” In Collins et al. (2004), 277–90.
- Lewis, David and Lewis, Stephanie. 1970. “Holes.” *Australasian Journal of Philosophy* 48:206–12. Reprinted in Lewis (1983), 3–9.
- Lombard, Lawrence Brian. 1990. “Causes, Enablers, and the Counterfactual Analysis.” *Philosophical Studies* 59:195–211.
- . 1992. “Causes and Enablers: A Reply to Mackie.” *Philosophical Studies* 65:319–22.
- Loux, Michael J. and Zimmerman, Dean W. (eds.). 2003. *Oxford Handbook of Metaphysics*. Oxford: Oxford University Press.
- Lowe, E.J. 2006. *The Four Category Ontology: A Metaphysical Foundation for Natural Science*. Oxford: Oxford University Press.
- Mackie, Penelope. 1991. “Causing, Enabling, and Counterfactual Dependence.” *Philosophical Studies* 62:325–30.
- Martin, C.B. 1996. “How It Is: Entities, Absences, Voids.” *Australasian Journal of Philosophy* 74:57–65.
- Mason, Andrew. 2000. “Introduction to Solid State Physics.” Available online at <http://www.engr.uky.edu/ee562/562HO1-physics.PDF>.
- Maudlin, Tim. 2007. *The Metaphysics Within Physics*. Oxford: Oxford University Press.

- Melia, Joseph. 2005. "Truthmaking Without Truthmakers." In Beebe and Dodd (2005), 67–84.
- Mellor, D.H. 1995. *The Facts of Causation*. London: Routledge.
- . 2004. "For Facts as Causes and Effects." In Collins et al. (2004), 309–24.
- Merricks, Trenton. 1995. "On the Incompatibility of Enduring and Perduring Entities." *Mind* 104:523–31.
- . 1999. "Persistence, Parts, and Presentism." *Noûs* 33:421–38.
- . 2007. *Truth and Ontology*. Oxford: Oxford University Press.
- Molnar, George. 2000. "Truthmakers for Negative Truths." *Australasian Journal of Philosophy* 78:72–86.
- Mozer, Michael and Vecera, Shaun. 2004. "Object- and Space-based Attention." In Itti et al. (2004), 130–4.
- Mulligan, Kevin, Simons, Peter, and Smith, Barry. 1984. "Truth-Makers." *Philosophy and Phenomenological Research* 44:287–321.
- Mundy, Brent. 1992. "Space-Time and Isomorphism." *Proceedings of the Philosophy of Science Association* 1:515–27.
- Nerlich, Graham. 1994. *The Shape of Space*. Cambridge: Cambridge University Press.

- . 2003. “Space-Time Substantivalism.” In Loux and Zimmerman (2003), 281–314.
- Newton, Isaac. 1687. “Scholium to the Definitions.” In his (1999) *The Principia: Mathematical Principles of Natural Philosophy*. Translated by Bernard Cohen and Anne Whitman. Berkeley, CA: University of California Press, 408–15.
- Parsons, Josh. 2006. “Negative Truths from Positive Facts?” *Australasian Journal of Philosophy* 84:591–602.
- Parsons, Terence. 1980. *Nonexistent Objects*. New Haven, CT: Yale University Press.
- Plato. 2000. *Timaeus*. Translated by Donald Zeyl. Indianapolis, IN: Hackett.
- Pooley, Oliver and Brown, Harvey R. 2002. “Relationalism Rehabilitated? I: Classical Mechanics.” *British Journal for the Philosophy of Science* 53:183–204.
- Posner, M.I, Snyder, C.R., and Davidson, B.J. 1980. “Attention and the Detection of Signals.” *Journal of Experimental Psychology: General* 109:160–74.
- Priest, Graham. 2000. “Truth and Contradiction.” *The Philosophical Quarterly* 50:305–19.
- . 2005. *Towards Non-Being: The Logic and Metaphysics of Intentionality*. Oxford: Oxford University Press.

- Quine, W. V. O. 1948. "On What There Is." *Review of Metaphysics* 2:21–38.
- Rodriguez-Pereyra, Gonzalo. 2005. "Why Truthmakers." In Beebe and Dodd (2005), 17–32.
- Routley, Richard. 1980. *Exploring Meinong's Jungle and Beyond. An Investigation of Noneism and the Theory of Items*. Canberra: Philosophy Department Monographs, RSSH, Australian National University.
- Russell, Bertrand. 1985. *The Philosophy of Logical Atomism*. La Salle, Illinois: Open Court. Originally published in *The Monist* 28 (1918), 495–527; 29 (1919), 32–63, 190–222, and 509–24.
- Sainsbury, R.M. 1990. "Concepts without Boundaries." London: King's College London. 20pp. Reprinted in Keefe and Smith (1996), 251–64.
- Sartre, Jean-Paul. 1969. *Being and Nothingness*. Translated by Hazel Barnes. New York: Washington Square Press.
- Schaffer, Jonathan. 2004. "Causes Need Not Be Physically Connected to Their Effects: The Case for Negative Causation." In Hitchcock (2004), 197–216.
- . 2005. "Contrastive Causation." *The Philosophical Review* 114:327–58.
- . 2009. "Spacetime the One Substance." *Philosophical Studies* 145:131–48.
- Schnieder, Benjamin. 2006. "Troubles with Truth-Making: Necessitation and Projection." *Erkenntnis* 64:61–74.

- Schroeder, Timothy and Caplan, Ben. 2007. "On the Content of Experience." *Philosophy and Phenomenological Research* 75:590–611.
- Sider, Theodore. 2001. *Four Dimensionalism: An Ontology of Persistence and Time*. Oxford: Oxford University Press.
- Simons, Peter. 1987. *Parts: A Study in Ontology*. Oxford: Oxford University Press.
- Sklar, Lawrence. 1974. *Space, Time, and Space-time*. Berkeley, CA: University of California Press.
- Smith, A.D. 2002. *The Problem of Perception*. Cambridge, MA: Harvard University Press.
- Smith, Barry. 1999. "Truthmaker Realism." *Australasian Journal of Philosophy* 77:274–91.
- Sorensen, Roy. 2004. "We See in the Dark." *Noûs* 38:456–80.
- . 2008. *Seeing Dark Things*. Oxford: Oxford University Press.
- . Forthcoming. "Silhouettes: A Reply from the Dark Side." *Acta Analytica*.
- Sosa, Ernest. 1987. "Subjects among Other Things." *Philosophical Perspectives* 1:155–87.
- Strawson, Peter F. 1959. *Individuals: An Essay in Descriptive Metaphysics*. London: Routledge.

- Stroll, Avrum. 1988. *Surfaces*. Minneapolis, MN: The University of Minnesota Press.
- Taylor, Richard. 1952. "Negative Things." *Journal of Philosophy* 49:433–49.
- Tye, Michael. 2000. *Consciousness, Color, and Content*. Cambridge, MA: MIT Press.
- . 2007. "Intentionalism and the Argument from No Common Content." *Philosophical Perspectives* 21:589–613.
- . 2009. *Consciousness Revisited: Materialism without Phenomenal Concepts*. Cambridge, MA: MIT Press.
- van Inwagen, Peter. 1977. "Creatures of Fiction." *American Philosophical Quarterly* 14:299–308.
- . 1981. "The Doctrine of Arbitrary Undetached Parts." *Pacific Philosophical Quarterly* 62:123–37.
- . 2003. "Existence, Ontological Commitment, and Fictional Entities." In Loux and Zimmerman (2003), 131–57.
- . 2008. "McGinn on Existence." *Philosophical Quarterly* 58:36–58.
- Varzi, Achille. 2006. "The Talk I Was Supposed to Give." In Botani and Davies (2006), 131–52.
- . 2007. "Omissions and Causal Explanations." In Castellani and Quitterer (2007), 155–67.

- Vecera, S.P. 1994. "Grouped Locations and Object-based Attention: Comment on Egly, Driver, and Rafal (1994)." *Journal of Experimental Psychology: General* 123:316–20.
- Vecera, S.P. and Farah, M.J. 1994. "Does Visual Attention Select Objects or Locations?" *Journal of Experimental Psychology: General* 123:146–60.
- Wake, Andrew, Spencer, Joshua, and Fowler, Gregory. 2007. "Holes as Space-time Regions." *The Monist* 90:372–8.
- Wiggins, David. 1968. "On Being in the Same Place at the Same Time." *The Philosophical Review* 77:90–95.
- Williams, Donald C. 1953. "The Elements Of Being." *Review of Metaphysics* 7:3–18, 171–92.
- Williamson, Timothy. 1990. *Identity and Discrimination*. Oxford: Blackwell.
- Zimmerman, Dean W. 1995. "Theories of Masses and Problems of Constitution." *Philosophical Review* 104:53–110.
- . 2003. "Material People." In Loux and Zimmerman (2003), 491–526.

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